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A COMPARATIVE ANALYSIS OF TOP E-RETAILERS IN INDIA: AMAZON AND FLIPKART

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ABSTRACT

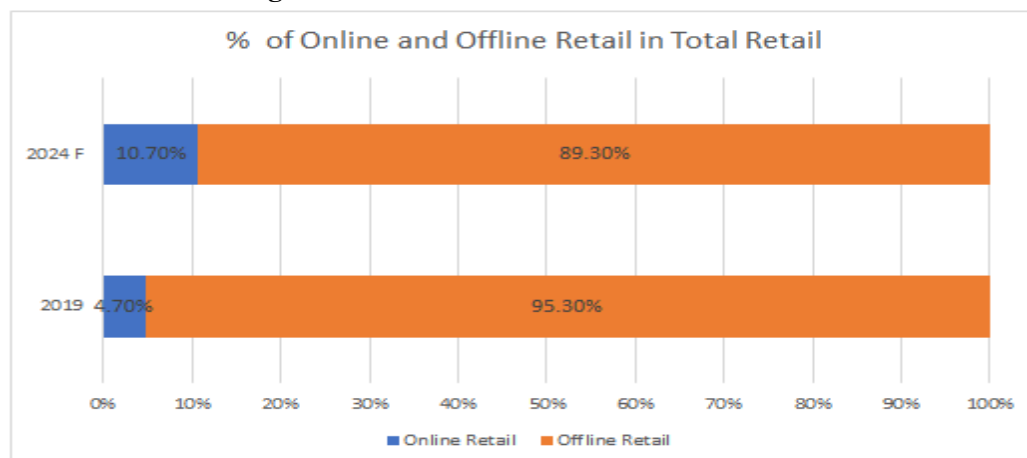
Online retail sector in India is expected to grow in coming years due to technological advancements and easy access of internet and smart devices to the users. A large population of India is engaged in buying products over the internet through online retailer. There are number of e-retailers currently active in India such as Amazon, Flipkart, Myntra, Snapdeal, Homeshop18, Firstcry, Nykaa, Paytm mall, Ajio etc. The objective of this research paper is to perform a comparative study of two leading e retailers in India which are Amazon.in and Flipkart.com on basis of volume of traffic. Comparative analysis of these online retailers has been done on the basis of data for the month of September, 2022 gathered from a web analytics solution named similarweb.com. According to Similarweb.com, amazon.in is ranked at 1st position according to the volume of traffic for September, 2022 and is the most popular E-Commerce and Shopping Website in India. Flipkart.com, a leading online retailer in India holds 2nd rank based on size of traffic.

Keywords: E-retailer, Online retailer, Online traffic, Bounce Rate, Page per visit

INTRODUCTION

Online shopping is gaining in popularity every day with the growing use of the World Wide Web. India presently has a huge digital population base of 658 million internet users, making it second largest country after China (Statista, 2022). One of the main factors influencing the rapid expansion of India's e-commerce business is the widespread use of mobile devices connected to the internet via accessible broadband options and mobile data (IBEF-June, 2022). In the year 2020, users of smartphone were 600 million in India and it is estimated that this user base will increase in future and rise up to 887 million by 2030 (IBEF-June, 2022). In 2018, the rapidly growing e-commerce market in India had a market value of 22 billion dollars. This value is anticipated to reach 350 billion USD by the year 2030 (Statista, 2022). The total number of online buyers is predicted to increase from 80 million in 2017 to 220 million by 2025 in India (Statista).

Figure 1 Online Retail vs Offline Retail in India



Source: <https://www.ibef.org/industry/ecommerce/infographic> (June, 2022)

The bar chart represents that in 2019 online retail captured only 4.70% of total retail in India and 95.3% of total retail is covered by offline retail. It is forecasted that share of online retail will rise up to 10.70% of total retail in India by 2024. (IBEF Report: June, 2022)

REVIEW OF LITERATURE

Ayodeji et al., (2020) made an attempt to analyse five leading online shopping websites in India. These platforms were analysed in this study using similarweb.com and alexa.com. This study presented a comprehensive analysis by comparing profile of company, types of business model, strategies of investment and funding, and acquisition by these retailers. The results of the study revealed that Amazon.in secured 1st rank, Flipkart.com got 2nd rank, Paytm.com took 3rd rank, Myntra.com placed 4th rank, and Snapdeal.com obtained 5th rank according to volume of traffic by Alexa and similarweb.com also showed the same results.

Gairola and Yadav (2017) conducted a study to examine the performance of online retailers which are Snapdeal, Flipkart, Amazon and Ebay. This study provided thorough understanding of four online shopping platforms through description of their current status in India. On the basis of survey results, the study revealed that there is significant difference in the popularity of these selected online retailers in India and Flipkart is most preferred online website in comparison to three others.

Kalia (2015) carried out a study to compare the 6 online shopping websites of India analysing their model of business and its major components. Monthly volume of traffic taken from similarweb.com was used as base for analysing these online retailers. The findings of the study revealed that 'transaction fee' is the source of revenue of five studied online retailers i.e., Flipkart, Myntra, Snapdeal, Jabong, Amazon.in while one e retailer (Homeshop18) makes its earnings only through sales revenue. The study further stated that Flipkart is the only one which has employed 10000+ employees among all analysed e retailers in this study others are working with lean manpower.

Arora and Kaur (2015) undertook a research study to examine the difference between Snapdeal and Flipkart in India. These online shopping platforms have been analysed considering employees base, product varieties, per visit pages. The results of the study showed that Flipkart has more employees than Snapdeal. A visitor spends 8:35 minutes per visit on Flipkart which is higher than time spent on Snapdeal by a user per visit which is 7:49 minutes. Before going to Flipkart, 12.0% and 16.9% of users, respectively, visited Google.com and Google.co.in. Google.co.in and Google.com were both accessed by 17.8% and 9.8% of users, respectively, prior to visiting Flipkart. Finally in conclusion, the study stated that Flipkart had a stronger hold on online market while Snapdeal was expanding its company more quickly for competing Flipkart.

RESEARCH OBJECTIVES

The objective of this study is to make a comparative analysis of top e-retailing websites: amazon.in and flipkart.com which are currently active in India and rank them according to volume of traffic.

RESEARCH METHODOLOGY

The research design of this study is descriptive in nature and secondary data gathered from various websites such as www.statista.com, www.amazon.in, www.flipkart.com, www.datareportal.com etc. have been used in this present study. To present a comparative analysis, data have been gathered from www.similarweb.com which is a web analytics solution. Ranks to online retailers in India have been given on the basis of size of traffic related to month of September, 2022.

Amazon.in

Amazon.in is a leading e-retailing website in India and grabs 1st rank among all e-retailing websites currently active in this country (similarweb.com). Amazon.com.inc launched by Jeff Bezos in 1994 is the parent company of amazon.in. Amazon.com entered into Indian market in June, 2013 by launching a new website based on marketplace model i.e., www.amazon.in. In the beginning of start-up, amazon.in came up with only two product offerings i.e., books and media sales (Gairola & Yadav, 2017). Presently it offers broader range of products related to beauty, baby care, clothing, electronic items, books, furniture, home appliances, computers, jewellery etc. Amazon.in makes its earnings through transaction fee model (Kalia, 2015). Amazon.in secured 70th global rank and 7th country rank in India for month of September, 2022 (similarweb.com).

Flipkart.com

Sachin Bansal and Binni Bansal are the founders of an e-retail company named Flipkart.com which was launched in October, 2007 in India as an electronic store of books (Ayodeji et. al., 2020). Presently it is offering wider product categories including electronics, clothing, TV appliance, Kids products, sports products, home appliance etc. Flipkart identified that Indian shopper were not comfortable in making online payments, so to solve this issue Flipkart provided the facility of paying 'Cash on Delivery' and became the first online retailer offering this facility of making payments in online shopping (Gairola & Yadav, 2017). The flipkart.com is headquartered in Bangalore, Karnataka (Arora & Kaur, 2015). Flipkart.com utilizes sales revenue and transaction fee model for generating earnings (Kalia, 2015). It obtains 94th global rank and 11th country rank in India for the month of September, 2022 (Similarweb.com).

Table 1: Facts about E-Retailers

Facts	E-Retailers	
	Amazon.in	Flipkart.com
Launched on	June, 2013	October, 2007
Established by	Amazon Company	Sachin Bansal and Binny Bansal
Headquartered / registered office	Bangalore, Karnataka	Bangalore, Karnataka
Global Rank (September, 2022)	70	94
Country Rank, India (September, 2022)	7	11

Global Rank

Global Rank refers to the rank of website according to size of traffic comparing all categories of websites in the whole world (similarweb.com).

Country Rank (India)

Country rank means the rank of a website based on size of traffic comparing all other websites of the country (similarweb.com).

Table 2: Ecommerce & Shopping Category wise Ranks of E-Retailers in India (September, 2022)

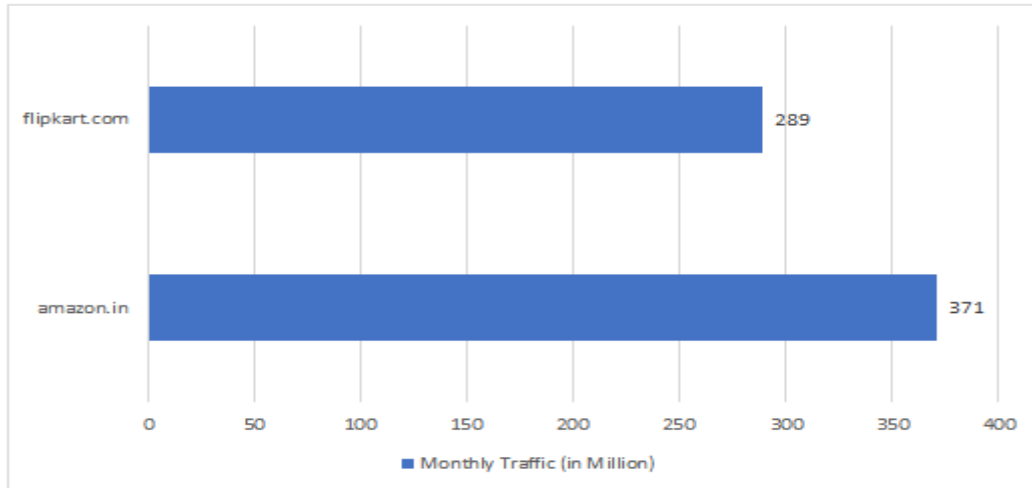
Ranks in India	Website
1	amazon.in
2	flipkart.com

According to Similarweb.com, amazon.in is ranked at 1st position on the based size of traffic for September, 2022 and became most visited online hopping site in India. Flipkart.com, leading online retailer in India holds 2nd rank based on size of traffic.

Comparative Analysis of Top Electronic Retailers in India (September, 2022)

Monthly Total Visits (September, 2022)

Figure 2: Monthly Traffic (in Million)



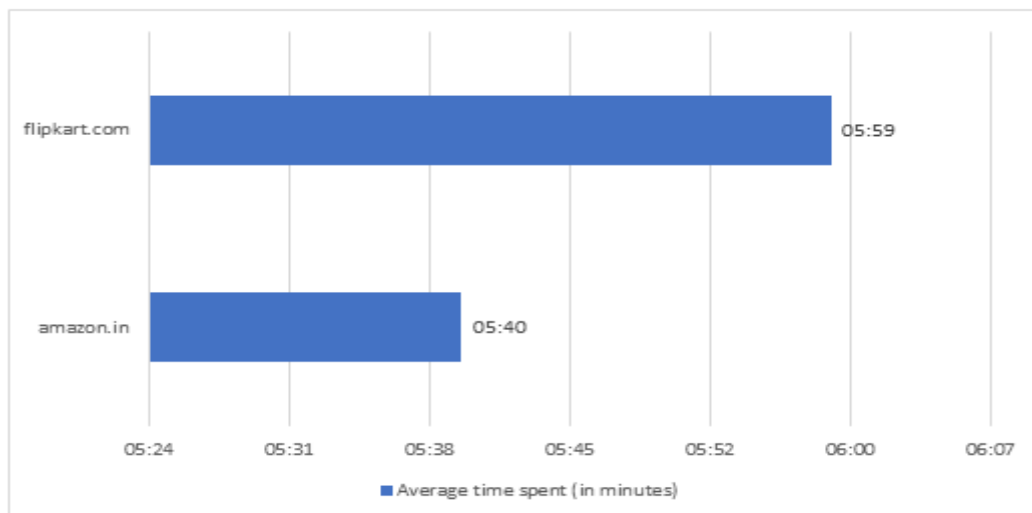
Source: <https://www.similarweb.com/>

Top position among e-retailers in India is ranked by amazon.in with monthly traffic of 371.0 million visitors. Flipkart.com grabbed 2nd rank in India with monthly traffic size of 289.0 million visits.

Average Time Spent (in Minutes)

It is also termed as Average Visit Duration. The average visit duration is the amount of time visitors spend on a website on averages basis during a session. Based on the amount of time between the first and last page-views each visit Similarweb computes the average visit duration (Similarweb).

Figure 3: Average time spent (in minutes)



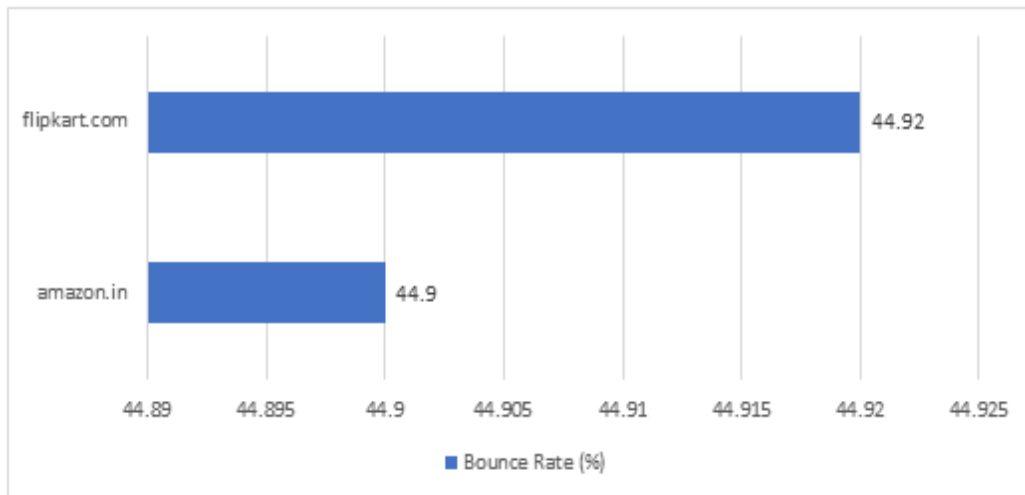
Source: <https://www.similarweb.com/> (September, 2022)

As the bar chart shows that time spent per visit by each visitor is a 5: 59 minute on flipkart.com followed by amazo.com which has average time of 05:40 minutes by each visitor. This depicts high level of engagements of visitors on Flipkart.com.

Bounce Rate

It shows the percentage of site visitors who arrive, see single page and then leave the website without viewing any more pages of that website. (Burby et al., 2007).

Figure 4: Bounce Rate in percentage



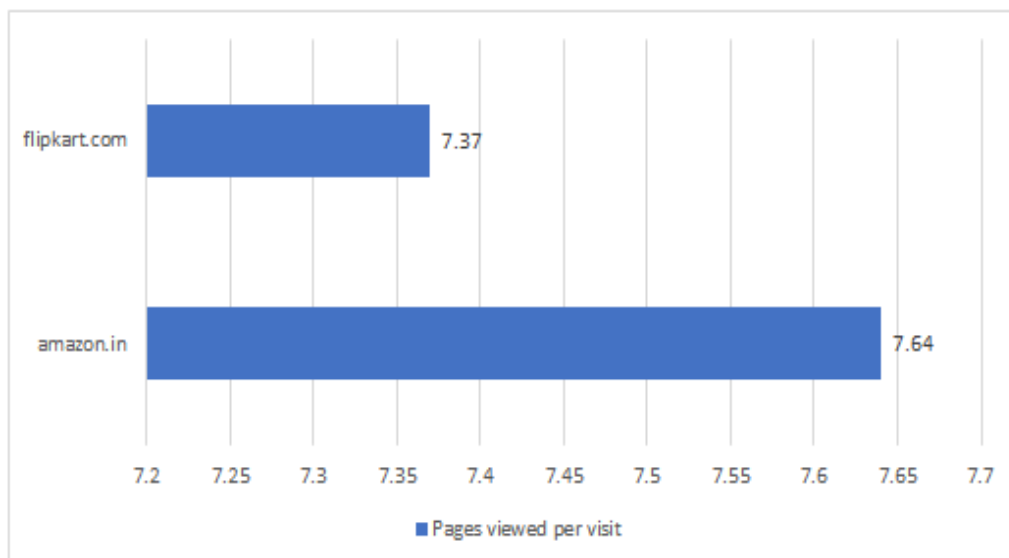
Source: <https://www.similarweb.com/> (September, 2022)

The bar chart shows that Flipkart.com as e- shopping website has a bounce rate of 44.92% while bounce rate in amazon.in is 44.90% for the month of September, 2022 in India.

Page Viewed Per Visit

The average of total number of pages that website visitors view during a single session is referred to as a page view in web analytics (Ayodeji et al., 2020). The number of pageviews is divided by the number of visits to determines the number of pages per visit by Similarweb.

Figure 5: Page viewed per visit



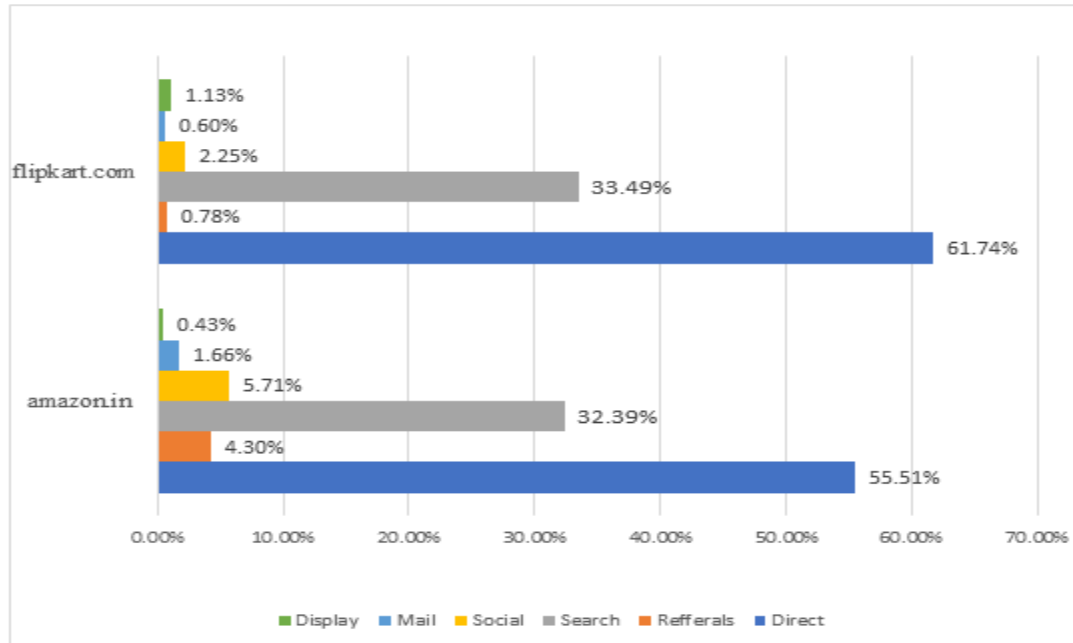
Source: <https://www.similarweb.com/> (September, 2022)

It is represented from the bar chart that amazon.in has higher page view per visit in comparison to flipkart.com. Amazon.com and flipkart.com obtain 7.64 and 7.37 pages per visit respectively.

Source of Traffic

Source of traffic provides the meaningful information about websites from where it gets the traffic and what percentage of traffic is generated through different sources (Kalia, 2015).

Figure 6: Source of Traffic



Source: <https://www.similarweb.com/> (September, 2022)

As the bar chart depicts that most of traffic comes from direct source on both online retail websites. Amazon.in and flipkart.com get 55.51% and 61.74% of the traffic from direct sources respectively. Another major source of traffic for both shopping websites is search. 32.39% traffic on amazon.in comes from search and flipkart.com receives 33.49% traffic through search. Displaying advertisements on desktop generates least percentage of traffic (0.43%) on amazon.in while flipkart.com gets least traffic through mail which is only 0.60%.

CONCLUSION

It is concluded from the above analysis that increment in number of visitors is not only important for E-retailers but retaining the visitors and their conversation into actual buyer is of utmost importance for the success of online retailing websites. According to similarweb.com analysis Amazon.in got 1st rank and flipkart.com secured 2nd rank on the basis of number of visits in India for the month of September, 2022. Further, traffic from displaying advertisement is very less compared to other traffic sources for both e- retailing websites in India. Bounce rate of flipkart.com is 44.92% which is higher than bounce rate of amazon.in. Bounce rate shows percentage of visitors who leave the website after viewing a single page on the website and don't see the other pages in a single visit. It is suggested that online retailers should make efforts to attract the traffic through display of advertisements.

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- <https://www.similarweb.com/top-websites/india/category/e-commerce-and-shopping/>
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- <https://www.similarweb.com/website/amazon.in/#overview>
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A COMPARATIVE STUDY OF AWARENESS ABOUT HIV/AIDS AMONG CBSE AND UP BOARD SCHOOL STUDENTS OF MEERUT DISTRICT

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ABSTRACT

The present study was undertaken to determine the comparative study of Awareness towards HIV/AIDS among CBSE and UP Board School Students of Meerut District. This study was conducted on 220 higher school students (110 students were taken from CBSE Board Schools and 110 students were taken from UP Board Schools of Meerut District). Random sample technique was used to collect the sample. For Data collection, self made questionnaire was used in which there were questions regarding HIV/AIDS. Mean, SD and t-test are used for calculation, analysis and interpretation of data. Result revealed that there was significant difference in the CBSE and UP Board students towards HIV/AIDS Awareness. The result underline that there is a need of Education programs in the school. Awareness is the effective means the to be disseminated as campaign at school level for protective and preventive adolescent from the HIV/AIDS.

Keywords: HIV/AIDS Awareness, CBSE School, UP Board School, Students.

INTRODUCTION

The health status of children is an important indicator of health status of population and nation. The school health programme is the only public sector programme specifically focused on school age children. Good health knowledge enhances the effectiveness of other interventions on child development, ensures good health, and better educational outcomes. HIV/AIDS has emerged as the single most formidable challenge to public health. School children of today are exposed to the risk of HIV/AIDS- Which was quite to unknown to their predecessors a few decades ago. The epidemic of HIV/AIDS is now progressing at a rapid pace among young people. School education has been described as a “Social Vaccine” and it can serve as a powerful prevention tool in India, there is a wide gap between the inputs in the HIV/AIDS curriculum for schools and the actual education that is imparted. As children are a valuable resource for the future of a country, it is imperative that they be equipped with sample amount of information. So as to protect themselves and their counter parts from falling a prey this still – an – incurable killer disease. Acquired Immune Deficiency Syndrome (AIDS) is chronic potentially life-threatening condition caused by the human immunodeficiency Virus (HIV). By damaging your immune System, HIV interferes with your body’s ability to fight infection and disease. HIV is a sexually transmitted infection (STI). It can also be spread by contact with infected blood and from illicit injection drug use or sharing needles. It can also be spread from mother to child during pregnancy, childbirth or breastfeeding. Without medication it may take years before HIV weakens your immune system to the point that you have AIDS. There’s no cure for HIV/AIDS but medications can control the infection and prevent progression of the disease Antiviral treatments for HIV have reduced. AIDS deaths around the world and international organizations are working to increase the availability of prevention measures and treatment in resource-poor countries.



National youth HIV & AIDS Awareness Day is observed each year on April 10 to educate the public about the impact of HIV on young people. Schools play a critical role in promoting the health and safety of youth. DASH's unique ability to bridge public health and education provides a well established platform to support schools with guidance and resources for prevention of HIV, STDs and unintended pregnancy.

SIGNIFICANCE OF THE STUDY

HIV is a sexually transmitted infection (STI). It can also be spread by contact with infected blood and from illicit injection drug use or sharing needles. It can also be spread from mother to child during pregnancy, childbirth or breastfeeding, without medication it may take years before HIV weakens your immune system to the point that you have AIDS. HIV/AIDS has been recognized throughout the world as the important public problem and adolescents are at greater risk of having this infection because of varying behavior patterns. Adolescents need correct information to prepare them to make better choices in sexual behavior. The main objective of the present study was to compare the CBSE and UP Board School Students towards HIV/AIDS Awareness.

REVIEW OF RELATED LITERATURE

The magnitude of the problem becomes clear when one considers that well over one third (39 percent) of adults in Botswana, and one in every five (20 percent) adults in South Africa, are estimated to be HIV positive (NIC 2002).

At a human level, the financial burden of HIV/AIDS is at least 30% greater than deaths from other causes because it affects the most productive age group (young adults) and because the costs of medication and caring of the sick are staggering and can be prolonged (Coombe, 2002). HIV/AIDS leads to financial, resources and income impoverishment (Barnett & Whiteside, 2002), and puts severe strain on individuals and households. The psychological stress that is a direct consequence of the impact of HIV/AIDS on individuals and families can compromise school and work performance, family relationships and the capacity to take care of children, and may also culminate in risk behavior such as alcohol and drug abuse and in unsafe sexual behavior (Coombe, 2002).

The HIV/AIDS pandemic disproportionately affects women who already carry a very hard burden in many African countries. From a physiological and medical perspective women are at a greater risk of getting infected. In addition, they are often solely responsible for the household and the children, and have less financial and material reserves to fall back on. Women also face the risk of abandonment or abuse at the hands of their partners when HIV/AIDS strikes. And

when family members fall sick as a result of HIV, it is most often the girls who will be removed from schools to take care of those who are sick (Barnett & Whiteside, 2002).

UNAIDS (2003) warns that unless drastic action is taken, the damage that has already taken place is very likely to be minor compared to what is still to come. In fact, as Kelly (2003) notes, all predictions to date have proven to be conservative at best with dire projections about the progression of the pandemic needing to be revised every year because they are inevitably short of the mark.

Knowledge about HIV and AIDS is centered on disseminating information about the modes of transmission, means of prevention, and behaviors that enhance susceptibility. Attitudes typically concern not only the overall attitude toward the disease, but also encourage tolerance and understanding of those that have been affected by HIV. The skills that children will need are frequently formulated very broadly (and are therefore often termed life skills) in terms of communication, critical thinking, self-efficacy, among others. In practice, however, a lot of the teaching about HIV/AIDS in schools still focuses only on the knowledge dimension of HIV/AIDS (Action Aid, 2003).

The task for teachers is however, daunting from various perspectives. Teachers often lack the curricular time and orientation to adequately address the issue within schools (Kelly, 2002). In addition, studies have also shown that most teachers routinely do not even get the information, training or support that they need in order to be able to implement their work (Malambo, 2000; Kelly, 2003, Action Aid, 2003). Teachers often rely on rote learning, which promotes an academic/overly scientific interpretation of the subject (Kelly 2003; UNESCO 2002; Action Aid 2003) without ensuring that students have a true understanding of the factors that affect transmission of the disease and which still leaves them relatively unequipped to prevent becoming infected. An additional complicating factor is that teaching children about HIV/AIDS goes against the predominant view in most societies in which sex is a taboo topic that should not be discussed at any cost. Kelly notes that although educators are usually aware of the knowledge and information gap that exists between the home and the school, they are often- because of the reasons mentioned above-unable to make provision for it. A tension arises between how disease is interpreted in terms of values attitudes and beliefs in the home environment and the scientific way in which it is presented in the schools (Kelly, 2003).

Over the past five to seven years the focus shifted from approaches targeted very specifically to segments of the population from a health perspective to multi-sectoral plans and strategies, which seek to involve a wide variety of government and non-governmental agencies (Coombe, 2002). The rationale for a multi-sectoral approach arises from the recognition that HIV/AIDS requires an integrated response to break the cycle of poverty and gender inequality that is at the center of its spread (UNESCO, 2002). The education sector figures prominently within this newly emerging multi-sectoral approach (Coombe, 2002; UNESCO, 2002). There are various reasons for this. Firstly, children between the ages of 5 and 14 have the lowest HIV prevalence rate of all population age groups, since they did not get infected at birth and are generally not yet sexually active. This means that focusing on forming/changing the attitudes, skills behavior of these children can have a potential pay off. Secondly, children in this age group are still in the formative stages of their lives, which means that their health and social behavior can still be influenced (UNAIDS, 1997).

School age children thus constitute the “window of hope” (IBRD/WB, 2002) for many countries, and the education system provides a privileged opportunity for working with this age group since, in many of the countries, most children spend at least a few years at their lives in school. As the World Bank notes: “education offers a ready made infrastructure for delivering HIV/AIDS prevention efforts to large number of uninfected population” (IBRD/WB, 2002, p.

xv). The focus on the education system also makes sense from a cost benefit perspective. It is widely recognized that basic education is one of the most effective means of making a difference in economic terms since it becomes possible to reach large numbers of children at a time. And finally there is ample evidence that: “ a good basic ranks among the cost-effective-means of HIV/AIDS prevention” (IBRD/WB, 2002, p. xv). Because there is a strong inverse relationship between vulnerability to diseases such as HIV, malaria and others, and level of education (Vandemoortele and Delamonica, 2000).

STATEMENT OF THE PROBLEM

A Comparative Study of Awareness about HIV/AIDS Among CBSE and UP Board school Students of Meerut District

OBJECTIVES OF THE STUDY

1. To Study the CBSE and UP Board School Students towards HIV/AIDS Awareness.
2. To compare CBSE and UP Board School Students towards HIV/AIDS Awareness.
3. To compare CBSE Boys and UP Board Boys Students towards HIV/AIDS Awareness.
4. To compare CBSE Girls and UP Board Girls Students towards HIV/AIDS Awareness.
5. To compare CBSE Boys and UP Board Girls Students towards HIV/AIDS Awareness.
6. To compare CBSE Girls and UP Board Boys Students towards HIV/AIDS Awareness.

OPERATIONAL DEFINITIONS OF THE TERM USED

1. HIV/AIDS Awareness

Increased awareness of safe practices to prevent HIV infection results in people being more careful and ultimately decreases infection rates. HIV/AIDS Awareness programmes help people become aware of the levels of care and treatment.

2. CBSE Board Students

The full form of CBSE is Central Board of Secondary Education. CBSE is a national level Educational body for public and Private Schools that is under the direct control of the Government of India. CBSE conducts board Examinations for students of class 10th and class 12th on a national scale every year. The examination which CBSE conducts for class 10th students is known as AISSE, while the examination for class 12th students is called AISSCE.

3. UP Board Students

The Board of High School and Intermediate Education Uttar Pradesh is the Uttar Pradesh State Government administered autonomous Examining authority for the standard 10th Examination and Standard 12th Examination of Uttar Pradesh headquartered in Prayagraj, India. Presently this Board enjoys the tag of Asia's largest board in terms of no. of students.

HYPOTHESIS OF THE STUDY

1. There is no significant difference between the CBSE and UP Board School Students towards HIV/AIDS Awareness.
2. There is no significant difference between CBSE Boys and UP Board Boys Students towards HIV/AIDS Awareness.
3. There is no significant difference between the CBSE Girls and UP Board Girls Students towards HIV/AIDS Awareness.
4. There is no significant difference between the CBSE Boys and UP Board Girls Students towards HIV/AIDS Awareness.
5. There is no significant difference between the CBSE Girls and UP Board Boys Students towards HIV/AIDS Awareness.

Delimitation of the Study:-

1. The study was delimited to 220 students only.
2. The study was restricted only to CBSE and UP Board School Students.
3. The Sample is delimited only 12 Schools of Meerut District.
4. The Study is delimited only to the Co-educational Schools.

PLAN AND PROCEDURE**RESEARCH METHODOLOGY**

A good study depends on a goal oriented research design to produce better results. Many research methodologies may be employed to conduct the study in an efficient way. Research Methodology includes collection, purification, compilation, classification and tabulation, Statistical analysis and drawing meaningful conclusions from analysis. The present Study is descriptive in nature. Survey method was used to collect data.

Population of the Study:-

The population of the present study constitutes all the CBSE and UP Board School Students studying in class IX and X who are the district of Meerut U.P.

Sample of the Study:-

The sample is of small number of representative individuals from the population. This study is conducted on sample of 220 students, 110 boys and 110 girls selected randomly from 6 CBSE and 6 UP Board schools of Meerut district. The final sample is selected randomly.

Tool used:-

Self-made questionnaire was used in which there were questions regarding HIV/AIDS.

Statistical Techniques used:-

In this study various statistical measures such as mean, Standard Deviation and t-test are used.

Analysis and Interpretation:-

Data were further interpreted in five groups as there were five objectives of the study. All interpretation and discussions are made below as per the objectives of the study:

For Hypothesis No. 1

There is no significant difference between the CBSE and UP Board Students towards HIV/AIDS Awareness.

Table 1: Mean Standard deviation and t-value of the CBSE and UP Board School students.

	Group	N	Mean	S.D.	t-value	Remarks
HIV AIDS Awareness	CBSE Board Students	110	9.39	3.33	5.99	Significant at both level 0.01 and 0.05
	UP Board Students	110	15.73	5.59		

It is found that the mean scores of Both CBSE Students and UP Board Students are 9.39 and 8.38 respectively. When the t-test was applied to compare the mean scores of both the groups it was found that the calculative t-value (5.99) is greater than the table values 0.01 and 0.05 percent level of significance. Hence, hypothesis 1 is rejected. UP Board School Students have higher awareness about HIV/AIDS compared to CBSE Board School Students.

For Hypothesis No. 2:

There is no significant difference between the CBSE Boys and UP Board Boys Students towards HIV/AIDS Awareness.

Table 2: Mean Standard deviation and t-value of the CBSE and UP Board students.

HIV AIDS Awareness	Group	N	Mean	S.D.	t-value	Remarks
	CBSE Boys	55	9.58	2.38	8.11	Significant at both level 0.01 and 0.05
	UP Boys	55	6.41	3.04		

It is found that the mean scores of Both CBSE Boys and UP Board Boys are 9.58 and 6.41 respectively. When the t-test was applied to compare the mean scores of both the groups it was found that the calculative t-value (8.11) is greater than the table values 0.01 and 0.05 percent level of significance. Hence, hypothesis 2 is rejected. CBSE Boys Students have higher awareness about HIV/AIDS compared to UP Board Boys Students.

For Hypothesis No. 3:

There is no significant difference between the CBSE Girls and UP Board Girls Students towards HIV/AIDS Awareness.

Table 3: Mean Standard deviation and t-value of the CBSE and UP Board students.

HIV AIDS Awareness	Group	N	Mean	S.D.	t-value	Remarks
	CBSE Board Girls	55	8.33	2.34	6.3	Significant at both level 0.01 and 0.05
	UP Board Girls	55	5.78	3.03		

It is found that the mean scores of Both CBSE Girls and UP Board Girls are 8.33 and 5.78 respectively. When the t-test was applied to compare the mean scores of both the groups it was found that the calculative t-value (6.3) is greater than the table values 0.01 and 0.05 percent level of significance. Hence, hypothesis 3 is rejected. CBSE Girls Students have higher awareness about HIV/AIDS compared to UP Board Girls Students.

For Hypothesis No. 4:

There is no significant difference between the CBSE Boys and UP Board Girls Students towards HIV/AIDS Awareness.

Table 4: Mean Standard deviation and t-value of the CBSE and UP Board students.

HIV AIDS Awareness	Group	N	Mean	S.D.	t-value	Remarks
	CBSE Boys	55	8.53	2.11	4.89	Significant at both level 0.01 and 0.05
	UP Board Girls	55	9.61	3.23		

It is found that the mean scores of Both CBSE Boys Students and UP Board Girls are 8.53 and 9.61 respectively. When the t-test was applied to compare the mean scores of both the groups it was found that the calculative t-value (4.89) is greater than the table values 0.01 and 0.05 percent level of significance. Hence, hypothesis 4 is rejected. UP Board Girls Students have higher awareness about HIV/AIDS compared to CBSE Boys Students.

For Hypothesis No. 5:

There is no significant difference between the CBSE and UP Board Boys Students towards HIV/AIDS Awareness.

Table 5: Mean Standard deviation and t-value of the CBSE and UP Board students.

HIV AIDS Awareness	Group	N	Mean	S.D.	t-value	Remarks
	CBSE Girls	55	10.50	4.9	0.162	Not Significant
	UP Board Boys	55	9.79	3.9		

It is found that the mean scores of Both CBSE Students and UP Board Boys are 10.50 and 9.79 respectively. When the t-test was applied to compare the mean scores of both the groups it was found that the calculative t-value (5.99) is smaller than the table values 0.01 and 0.05 percent level of significance. Hence, hypothesis 5 is accepted. CBSE Girls have higher awareness about HIV/AIDS compared to UP Board Boys Students.

CONCLUSION

On the basis of the findings of the Study the following Conclusion were drawn:

1. UP Board School Students were found to be higher awareness about HIV/AIDS compared to CBSE Board School Students.
2. CBSE Board Boys Students were found to be higher awareness about HIV/AIDS compared to UP Board Boys Students.
3. CBSE Board Girls Students were found to be higher awareness about HIV/AIDS compared to UP Board Girls Students.
4. UP Board Girls Students were found to be higher awareness about HIV/AIDS compared to CBSE Board Boys Students.
5. CBSE Board Girls Students were found to be higher awareness about HIV/AIDS compared to UP Board Boys Students.

Educational Implication of the Study

1. The study will help other Scholars, researchers to know the present research status. So far done in field of HIV/AIDS Awareness.
2. Workshop, training, programs for University, College and School Students should be organized for HIV/AIDS Awareness.
3. Guides and counselors should be appointed in the school for the help of students in facing HIV/AIDS related Problems.
4. Curriculum should be framed as it can be proved helpful in the HIV/AIDS Awareness.
5. The present study show the A comparative Study of CBSE and UP Board Students towards HIV/AIDS Awareness. Here, comes the role a teacher, family as well as education which guides how to solve the HIV/AIDS related Problems and Awareness.

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A COMPARISON OF ANTHROPOMETRIC MEASUREMENTS AND BODY COMPOSITION AMONG FEMALE BACHELOR'S DEGREE TRAINEES IN PHYSICAL EDUCATION

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ABSTRACT

The purpose of this study was to examine the anthropometric traits and body composition of first- and second-year female physical education bachelor's degree trainees. The study involved 42 female participants, including 23 first-year trainees and 19 second-year trainees. All participants underwent testing for the anthropometric measurements required to assess body composition parameters using the established techniques. T-tests were used to compare the differences between the two groups that were statistically significant for each variable. Descriptive statistics for each variable were reported as a Mean and SD. The results showed no significant differences in body height, weight, or BMI between first- and second-year female bachelors of physical education trainees.

Keywords: comparative study, Anthropometry, bachelor, trainees,

INTRODUCTION

The measurement of various bodily parts and components is one of the most crucial jobs for physical educators. The term "Anthropometry," which is a synthesis of the Greek words "Anthropos" for man and "metreein" for measurements of the human body, is used in science to describe the measuring of people (Kansal, 2012).

The most effective method for studying the body's size, shape, and structure is anthropometric measurement. Measurement of obesity and selection of sports skill both greatly benefit from health-related physical fitness (Kansal, 2012). An athlete's body mass and composition affect their strength, agility, speed, and endurance (Popovic, 2013).

Purpose:

To compare anthropometric measurements and body composition between female bachelor physical education trainees in their first and second years.

Hypothesis:

Ho₁ There will be no statistically significant differences in anthropometric measurements and body composition between first year and second year of female bachelor physical education trainees.

METHODOLOGY

The Subject:

The subjects for this study were 42 (N=42) female bachelor physical education trainees from the University of Mumbai's Department of Physical Education, including (N=23) first- and (N=19) second-year trainees. Researchers used quota sampling, a non-probability sampling technique. The trainees were 25 years old on average.

Design:

The study was conducted using a survey technique and a comparative research methodology. The participants in this study were 23 first-year trainees in physical education and 19 second-year trainees. Anthropometric measurements and body mass index were compared between female physical education trainees in their first and second years.

Collection of the Data:

Using a fixed stadiometer, height was measured to the closest 0.1 cm and then converted to feet. With the aid of a portable device and a standard scale, weight was measured to the nearest 0.1 kg. The body mass index (BMI) was determined by dividing the body weight in kilograms by the square of the height in metres (kg/m²).

Statistical Procedure:

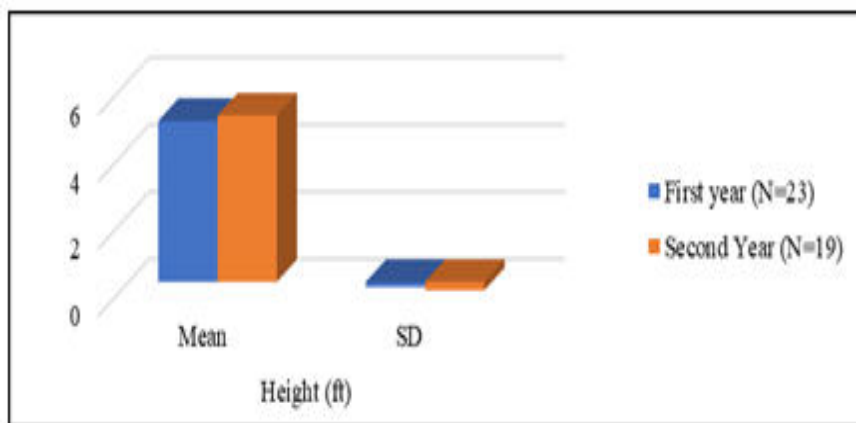
To compare anthropometric measurements between first-year and second-year female physical education trainees, a t-test was used. A 0.05 level of confidence was used to determine the significance level.

Analysis of Data:

Table 1 Height comparison between first- and second-year female physical education trainees.

Variables	First year (N=23)		Second year (N=19)		Mean diff.	SEM	df	't'	'p'
	Mean	SD	Mean	SD					
Height	5.29	0.35	5.45	0.25	0.1582	0.097	40	1.6279	0.1114

Table no 1 shows that there is much similarity in the mean score of the height of first year 5.29 and second-year trainees 5.45. As the obtained value 't' is below 2.04 that is 1.6279 which indicating that the difference in height between first- and second-year physical education trainees is negligible.

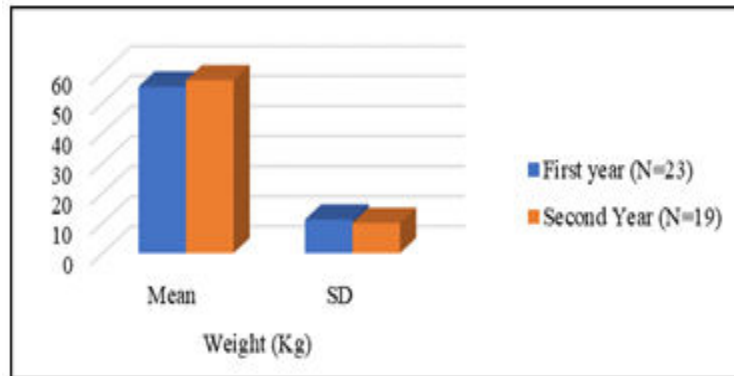


Graph no 1: First-year and second-year physical education trainees' mean and standard deviation for height

Table 2: weight comparison between first- and second-year female physical education trainees.

Variables	First year (N=23)		Second year (N=19)		Mean diff.	SEM	df	't'	'p'
	Mean	SD	Mean	SD					
Weight	55.39	11.15	57.53	10.00	2.14	3.301	40	0.6467	0.5215

Table no. 2 shows that there is much similarity in the mean score of the weight of first-year 55.39 and second-year trainees 57.53. As the obtained value 't' is below 2.04 that is 0.6467 which indicating that the difference in weight between first- and second-year physical education trainees is negligible.

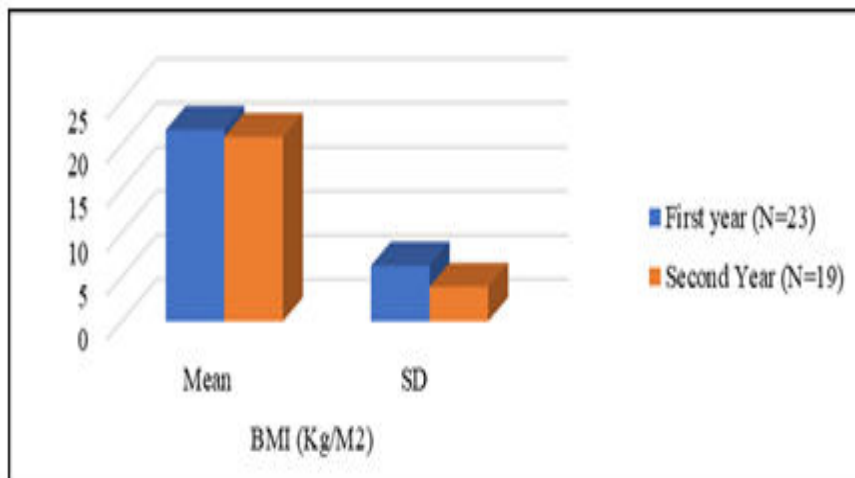


Graph no 2: First-year and second-year physical education trainees' mean and standard deviation for Weight

Table 3: BMI comparison between first- and second-year female physical education trainees.

Variables	First year (N=23)		Second year (N=19)		Mean diff.	SEM	df	't'	'p'
	Mean	SD	Mean	SD					
BMI	21.70	6.32	20.89	3.91	0.80	1.666	40	0.4808	0.6332

Table no. 3 shows that there is much similarity in the mean score of BMI of first-year 21.70 and second-year trainees 20.89. As the obtained value 't' is below 2.04 that is 0.4808 which indicating that the difference in BMI between first- and second-year physical education trainees is negligible.



Graph no 3: First-year and second-year physical education trainees' mean and standard deviation for Weight BMI

DISCUSSION

Findings indicated that Mean and SD of height of first year & second year physical education trainees were 5.29, 0.35 & 5.45, 0.25 respectively. The Mean and SD of weight of first year & second year physical education trainees were 55.39, 10.00 & 57.53, 10.00 respectively. The Mean & SD of BMI of first year & second year physical education trainees were 21.70, 6.32 and 20.89, 3.91.

Results indicated that 't' value for height, weight and BMI for first year & second year female physical education trainees were not significant statistically.

CONCLUSION

The study's findings showed that there was no difference between first-year female physical education trainees and second-year female physical education trainees of the physical education institute in terms of height, weight, and BMI.

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A CRITICAL ANALYSIS OF THE CONDITION OF WOMEN PRISONERS IN PRISON

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ABSTRACT

One of the key elements of the criminal justice system is prison administration. The state is responsible for overseeing jail administration. All civilizations and nations experience crime. Essentially, crime is a sign of a broken social structure. Both the type and makeup of crime have been significantly impacted by the fact that social structures and value systems have been shifting in the majority of emerging countries. The Indian woman has always been the cornerstone of the family and society at large.

The information in this article compiles some of the issues that Indian prisons for women and opinions of several researchers; incarceration negatively affects a person's psychological state.

Keywords: women prison, prison administration, mental health, society

INTRODUCTION

Prisons continue to remain as the fourth wing of the criminal justice system. The primary objective of the prisons is the safe custody of prisoners. The idea of imprisonment is to discourage those who would otherwise commit crimes and to reduce recidivism. Looking back into the history of prisons gives a better understanding of how the modern prison system evolved and the treatment of mentally ill prisoners too.

A standout amongst the most ignored parts of criminal fairness framework is the postponement brought about in transfer of cases and detainment of the denounced pending trial. These undertrial detainees are detenus positioned in jail beneath non-bailable offenses and those who can't supply required sureties in times of bailable offenses. It is the after-effect of a capture for a charged offense no longer took after by concede of tenfold

Sometimes they're denied equity for long duration of time. They are remoted from their own family for the best some portion of their life even though they might be blameless. In numerous Indian penitentiaries they are observed in a substantial number. In precise they want to stay in prison for a greater draw duration than the time of detainment which could be granted to them on the off hazard that they were determined guilty.

There are enormous number of inmates in prison without punishment which have caused major concern for jail administration. However, there are some situations for detaining an under-trial in prison:

1. Instance of grievous and serious crime
2. Where the accused might influence the witness or intervene the administration of justice.
3. Where the accused might enact same or similar crime
4. Where the accused might fail to come before the trial proceeding.

Flexibility, as conceived in global human rights records and inside the Constitution of India, is of foremost significance to humankind. Remedial requirements at work in criminal equity organisations, thusly, request that custodial foundations, specifically detainment facilities, are not appeared as social dustbins wherein the blamed or even the dependable are consigned as material discounted from the books of society. Their claim to opportunity and rebuilding to the social milieu keeps on being as strong as when they were unfastened individuals. This is

considerably greater so if there have to be an incidence of a blamed standing trial considering the fact that un-indicted denounced humans hold, with all lawfulness, the belief of purity as an important of reasonable trial. As a feature fruits to this assumption, it's far both vital and inviting that such unsentenced wrongdoers ought now not be bared in their entitlement to opportunity unless it's miles unavoidable, imperative and immovably set inner the gadget of sincere to goodness limitations.

CONDITION OF WOMEN IN JAIL

Women in our society are not even safe in their own homes and when a woman is arrested for some crime, the case becomes special. The trauma of separation from their kids and other family members they face is worse than the sentence they are given. Kiran Bedi writes about the Tihar Jail in her book "It's Always Possible", "Women prisoners were subjected to the most humiliating experiences, which robbed them of what little dignity and self-respect they reached the prison with. It must be considered some sort of miracle that these women managed to cling on to their sanity, despite the overwhelming odds they faced." According to the report of government of India on "Women Prisoners and their dependent children" in UP, almost around 200 women were imprisoned in the area of 60 out of which only 20 were convicted. Women face worse problems than men do in prison as well. Problems such as overcrowding, unhygienic conditions, loss of sanitary napkins etc are faced by women. A study of women in prison also states that they are brutally beaten and sexually harassed in jail. "An allowance of the universal indifference that Indian Society shows to the woman" the report said. Prison does not make a human being better by keeping them imprisoned but scar them for life. Re-socializing is another problem faced by women when they are set free.

The families of those women desert them and there is nowhere they can go. Women have their lives sacrificed to the society they live in and yet no body steps up to help them. The condition of women degrades day-by-day. Many of them are illiterates and they does not even fight for their rights. In a report of Tihar Jail, one of the inmates expressed that, "Life in prison is better than outside due to stigmas".

GENERAL PROBLEMS, HEALTH AND LIVING CONDITION ISSUES OF WOMEN PRISONERS IN INDIA

The ratio of women prisoners to men prisoners always differ. Women prisoners are comparatively less than men prisoners. Prison or a Jail is a secure facility for such persons who break the law. Although there is a basic fundamental difference between the two but both have similar primary purpose of holding and reforming such persons who break the law. But despite this all the prisons and jails tries their best to hide violence happening behind those doors. So it's equally important to recognize and fulfill the rights of prisoners irrespective of their gender.

The problems and violation of rights become more and stronger when it narrows down to women inmates. Prisons were basically designed which were suitable for the category of men and women prisoners. Women face a lot of problems in prison and it impacts their health and living conditions too. General Problems, health and living condition issues faced by women in prisons are

- i- Delay in trial – It is a serious problem faced by the prisoners in the prison system.
- ii- Prison Staff
- iii- Accommodation issues due to overcrowding
- iv- No proper Legal Aid services
- v- Education
- vi- Violence

- vii- Children
- viii- Health
- ix- Sanitation
- x- Personal Hygiene
- xi- Connection with the outside world
- xii- Acceptance and adjusting in the community after serving in prison
- xiii- Vocational training
- xiv- Nutrition
- xv- Bath and Latrine
- xvi- Clothing and bedding
- xvii- Family management issues
- xviii- Impact on their child/children due to staying away in prison.

Legal Acts of the Women Prisoners:-

Article 21- No person shall be deprived of his life or personal liberty except according to the procedure established by law.

Article 5 of the universal declaration of human rights (UDHR) – No person shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment.

Article 142- The Supreme court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it.

Article 39A- Equal Justice and free Legal aid.

Section 428 of the Indian Penal Code (IPC) – Set off the periods of detention of an accused as an under trial prisoner against the term of imprisonment imposed on him on his conviction.

CONCLUSION

In Indian society, the status of women is seemed to be low. There is greater need of the study of incarcerated women and criminal women because the status of women has undergone several changes during the last two decades because of being involved in criminal activities. In the Indian patriarchal social system, women are violated and dominated by the men in their several phase of life. When the torture and violation reaches on top women tend to commit crime. Although the ratio of committed crime by the women is low but the crime rate is increasing gradually not only in India but also in other countries. When women commit crime they have to go in prison for the punishment and reformation to improve the criminal tendency of women and reintegrate in the society. It is found from the previous study that the state of women prisoners is full of miseries. In Prison, women have to face various challenges and troubles. Women prisoners are found in very pathetic condition in prison. The environment of the prison is very harsh with lacking of facilities by which women prisoners get affected. Women prisoners were addicted for the drugs abuse and disease and prison staff did nothing to recover them. Earlier studies shows that the women prisoners have to face several problems in the prison related to all sphere of life and facilities are also not provided for the dependent children of the women prisoners who reside with them in the prison. Women are the only person of the family who acts like foundation for all family members. It is important to study the condition of women prisoners in present society, so that the women remain safe, not affected by the harsh environment of the prison. The execution of mental health policy and legislation could help in promoting human right practices and address major concerns of mental health issues. Human

right treatment could include right to get quality treatment on prompt basis, right against discriminatory practices. The issues of physical abuse, seclusion, extended frustration should also be addressed through proper monitoring & inspection so that living conditions can be improved in the interest of human dignity. It is significant to note that inter-sectoral cooperation is required to formulate proper mental health infrastructure and strategize reformatory scheme which not only help prison premises, but also reform inmates to become law-obeying persons. 22 It is essential to include treatment of problem of psychological well-being within ambit of primary healthcare mechanism for prisoners and prison staff in jail premises. It is also to explore the discourse and research centre on lines of therapeutic jurisprudence where cases of inmates of mental health issues could be taken where their cases management and treatment process can be addressed on priority. Apart from required measures regarding mental health issues, it is important to understand that the protected guarantee of speedy trial is an essential shield to expect undue and excessive imprisonment earlier than trial; to limit anxiety and problem going with open allegation and to restrain the conceivable consequences that long deferrals will weaken the capability of a charged to shield himself. Such speedy trial plays an important role not only for fair justice, but also for serve health justice for all inmates who are vulnerable to such emotional & psychological issues. It is the bounden duty of the courtroom and the indictment to forestall preposterous delay. Curative episode can't be given without an refinement & development in the psychological wellness conditions and reformatory amenities. Giving a defensive & supportive ambience that establishes accentuation on psychological well-being/mental health will going to serve best interest of inmates.

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A NARRATIVE MEMORY OF THE FILM “AWE”: TRAUMATIC REMINISCENCES OF A TENSE EXISTENCE

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ABSTRACT

Memory influences every human behavior from childhood. Existence and memory are inextricably linked because the narrator of every life in this world is memory. In the absence of memory, existence loses all meaning and ceases to exist. Remnants of several traumatic memories from childhood are buried in so many people. Ironically, while they and their mental suffering live with the rest of their society, it is unnoticeable until they reveal themselves. Thus, the current research scrutinizes the technique of narrative memory in Prasanth Varma's psychological film Awe (Ragasiyam) as an object of this study. Further, the research tracks the cinematic portrayals of loneliness, social alienation, vilification, abuses, identity struggles, and existential crises to explore the effects of traumatic experiences from childhood on an adult's anxiety in society. In addition, this study also combines the findings of the film with recent data on social crisis to demonstrate the impact of traumatic memory in Indian society.

Keywords: Child Abuse, Depression, Existence, Identity, Narrative Memory, Psychosocial

1. EXORDIUM

Memory is the synthesis of emotional experiences, whereas the architect of those experiences is the significance of that moment. But only through the memories of past occasions and encounters can humans recognize themselves, and their social surroundings can remember them. Their existence without those stories of the past is fragmented. Because each and every individual is a creature and a character in their own life story, and their memories provide an explanation for their identity in the present and dictate their existence in the future. Even though these memories are merely conscious recollective data storage of various emotional experiences, human life is ultimately a condensed blended form of numinous past emotional experiences and memories. Furthermore, humans were “the storytelling animals” throughout their evolutionary history (Gottschall, 2012). Over time, the emotional and experiential memories of every person were unconsciously recoded and composed together in their society as “collective memory.” In this sense, memory becomes stories about society and is wrought as literary fiction and historical documents. In the modern world, films have evolved as a new way to preserve those memories.

The director Prasanth Varma's first feature film, Awe (Ragasiyam), is a strong psychological work that makes use of techniques of narrative memory. Awe tackles a unique blend of stories about the social and psychological effects of traumatic memories on a woman from her childhood in a way that has never been done before on Indian celluloid. In this film, the filmmaker has crafted a deft and cunning omnibus genre film that juggles so many oversold ideas in disguise, such as the butterfly effect, the law of Karma, time travel, mythology, surrealism, queerness, eco-anxiety, moral dilemmas, and so on. In addition to this, there are several mythical connections in the character names, such as Kali, Nala, Radha-Krishna, Shiva-Parvati, Moksha-Yogi, and Meera. According to reviews, this meaty drama has allegedly offered everything that the spectators expected. In particular, the main idea behind this study was provoked by the clueless, stunning, and a little bit complicated psychological climax of this film.

2. LITERATURE REVIEW

Multiple personality disorder is considered as a theme of the film *Awe* in *The Deccan Chronicle*, *Hindustan Times*, *The New Indian Express*, and *Cinema Express* reviews. However, this film is not about multiple personality disorder; instead, it is about the mental aspect of multi-personality in the human mind as linked to its physical manifestation. Hereforth, the issue of multiple temperaments of the human mind will be explored in this preset study.

3. MULTIVERSE OF HUMAN MIND

The crux of this film, *Awe*, revolves around hyperlinking five stories of divergent and disparate characters from different walks of life. They include a wannabe couple, a phoney chef, a hopeful time traveler, an egoistic magician, and a dope barista. In addition, each story explores various modern issues, such as same-sex marriage, gender identity, child abuse, and environmental issues. Besides, all the scenes also set in this film appear to have taken place in different restaurants, but it is suddenly revealed before the intermission that they all occur in parallel at the same restaurant. Because the filmmaker of this film artfully used an everyday restaurant in an extraordinary aspect as an allegorical symbol of the human brain. The fact that this film traverses several genres clearly presents the dimensions of the memory function in the human mind.

3.1. Psychosocial Queer:

The first plot narrates the issues of queerness in psychosocial aspects. In the opening scene of this film, Radha invites her parents to dinner in a pink restaurant to introduce her suitor. As soon as the special person joins the scene, their anticipation transforms into shell-shock as they realise their daughter has become a lesbian. The relationship between Radha and Krishnaveni (Krish) was created as chaos in the minds of Radha's orthodox parents. Despite the fact that psychiatrist Krishnaveni's attraction to Radha is purely biological. However, it is evident from the dialogue that Radha's childhood abuse contributed to her androphobia (fear of men), which has emerged as a consequence of her relationship with her psychiatrist.

3.2. Biological Altruism:

The second narration is the blended shades of anthropomorphism and magical realism that exhibit the innate egocentrism of humans and their relationship with nature. Nala's existential crisis compels him to seek employment as a phoney chef in a restaurant. Initially, he had to rely on the culinary channel on YouTube to keep his job afloat. The fish then assists him after an unexpected internet outage, while a bonsai tree offers witty commentary as a sympathetic spectator of the event. The film makes the ironic point that technology and knowledge of humans are still dependent on nature for living. However, "Careers are funny things. They begin mysteriously and, just as mysteriously, they can end" (Albee, 1960, p. 5). Nala decided to cook the friendly fish at one point to rectify his error and stay in his job, which clearly denotes the fact that humans always ruin nature to fulfil their greed or conceal their faults.

3.3. Across Gender:

The third plot narrates a scientific strain of mind. A restaurant doorman, Shiva aspires to invent a contraption that will help him go across time and reunite with his deceased parents. An unknown and mysterious woman named Parvathy arrived on the scene and introduced herself as Shiva from the future. The film makes a passing reference to the Hindu legendary incarnation of Kali, hinting that Parvathy is indeed Kali. Moreover, it also tries to prove that sub-consciousness is across genders.

3.4. Agathokakological:

The fourth narration deals with nefarious and Machiavellian ideas. Meera is a drug-addicted barista plotting a heist with her boyfriend to loot money from an investor. The situation becomes nightmarish as a result of a drug overdose. Meera begins to hallucinate the ghost once

she discovers a necklace beneath a tree where a lady has been buried alive. Similarly, the fifth narration exhibits optimism and hopefulness. Moksha is a young girl who manages a café counter and solicits donations to protect the Indian cow breed by performing small magic tricks. Once again, the filmmaker expresses unsaid environmental concerns over the endangered extinction of an Indian cow breed. Meanwhile, she meets Yogi, an egocentric magician who never misses a chance to prove his superiority over others. But as a ray of hope for Moksha, a strange phantom magician performs tricks that shatter the magician's unfathomable ego and sense of superiority as being better than everyone else.

3.5. Memory Hub:

The very last scene of the film reveals that all of the characters and their experiences were just literary personas of Kali's subconscious in her mind. Moreover, to end chaos in her inner self and "evil" within her. In the final scene of this film, Kali declares her desire to commit genocidal massacres on her birthday through suicide. But in her last entry in the diary, she pleads "not guilty" to that action because of her traumatic past experiences in her subconscious memories. All her virtual characters created in her memories died along with her. Furthermore, this film clearly demonstrated that past memories are one of the rays of hope for human survival. To reflect her life experience, she chose mythological names for all her mental qualities as virtue-characters, like Nala, Radha, Krishna, Meera, Shiva, Parvati, Moksha, and Yogi. Again, she drew those names unintentionally from her childhood reminiscences. Besides that, the filmmaker chose the name Kali as a reference to the Hindu mythological deity Kali, an incarnation of Shakthi, who created the cosmos and had several personality incarnations to eradicate "evil." To a certain extent, humans were Kali. They have been consciously or unconsciously creating their own personal pocket universes out of their memories and have lived as a myriad of incarnated personalities each day.

4. CONFLICT IDENTITY

Every human in this world carries their own dreams and goals to harvest. On their quest to conquer their desires, they sailed across the oceans of opportunity, reached the pinnacles of hope, and smouldered the fields of ego. They considered this journey to be their identity and the purpose of their lives. However, this clumsy journey was filled with regrets, and sometimes it changed them completely as someone else forever. In addition, this study raises the question: what are they becoming if they strive to combat their own demons while losing themselves in the process?

Humans always have conflict between their id, ego, and super-ego within the subconscious mind. The id generates desires, the ego combines those desires with the necessities of the real world, and the superego infuses the action with morality. Through Kali's subconscious memory, this film narrates the conflicts of id, ego, and super-ego. In order to achieve mental tranquilly, Kali's subconscious memory constructed a superego in the form of an innocent child named Moksha (salvation). But her id began to dominate her superego in the guise of a conceited magician and a deceitful chef. To keep the balance between the id's aggressive pleasure and the superego's moral control, her ego brings Krishnaveni. However, the darkness of Kali's past experiences becoming Radha in her memory started to outperform her and began to shatter her ego. As quoted in the Cherokee Legend, "every human has two wolves within them, and they are always fighting with each other. One is darkness and despair, the other is light and hope. Whichever feeds more will win the other." Kali let the darkness in her memories consume her. She has undergone so many incarnations in an effort to find her true self. But all it did was leave her feeling completely adrift and uncertain of what she wanted to do with her life. In the process of internal conflict, the balance of her ego is disturbed, and her superego is destroyed. That frustration led her id as Meera to supplant her ego and super-ego. Although her consciousness has initially tried to remind her that the past cannot be rectified through Parvathy to save Kali

from the repercussions of her destructive decision. Eventually, Kali's traumatic memory causes her ego to break, and morphs Parvathy into Shiva, her own destroyer.

5. SOCIO-ANXIETY

The subconscious always dwells on the memories of aspiring desires and moments of the past, instead of recalling experiences that directly relate to the instant present moment. It can be both constructive and destructive at the same time. Even the healthiest people might be susceptible to the memories of resentful emotions and experiences that linger in their subconscious minds. Moreover, social anxiety never comes in a single package. The film narrates through the memories in Kali's subconscious to reflect her identity shifts as a consequence of her experiences in society. The research revealed that social anxiety disorder (SAD) is often a consequence of traumatic experiences and exposure filled with regretful anxious situations during childhood or adolescence (Hofmann, 2010). This film, *Awe*, documented the functions of the thought process in the subconscious for social anxiety since childhood through the eyes of Kali, who has changed with the circumstances due to the insanity and absurdity of society. She despised herself as a consequence of the harsh reality of the society that had guided her throughout her existence. Ultimately, she led to the decision to end her existence on the coffee table.

6. SOCIAL CRISIS DATA

The traumatic past memories of Kali's childhood abused, orphanhood, androphobia, mental illness, unemployment, drug addiction, and sociopathic tendencies have been emerging as the greatest threat to the younger generation in modern Indian society. The risk factors have doubled, especially since the COVID-19 outbreak.

6.1. Child Abuse:

"Childhood should be carefree, playing in the sun; not living a nightmare in the darkness of the soul" (Pelzer, 1995, p. 166). But it still remains only in the words. According to the National Crime Records Bureau (NCRB), 39,827 cases and 21,605 child rapes were reported in 2018 under the Protection of Children from Sexual Offences Act (POCSO). It is said that around 109 children are abused every single day in India. In addition, as per the data from Interpol statistics, India recorded approximately twenty-four million incidents of online child sexual abuse between 2017 and 2020, with eighty percent of the victims being under the age of fourteen. However, the study of India Today claims that every day, like Radha in this film, four children who are victims of sexual offences have their cases closed and denied justice due to a lack of evidence. In the Women, Peace, and Security Index 2021, India ranks 148th out of 170 countries in terms of women's justice and security.

6.2. Drug Abuse:

The use and abuse of narcotics is on the rise in modern Indian society, and millions of younger generations in India are addicted to alcohol, cannabis, and opioids. In 2019, National Drug Dependence Treatment Centre (NDDTC) released the Magnitude of Substance Abuse Survey, which shows that seventy-seven lakh people in India need rehabilitation for drug addiction and issues related to drug abuse. This data clearly shows that there were so many people suffering like Meera, who lost themselves and their precious lives to addiction for various reasons. In the words of Oscar Wilde, today's generation knows "the price of everything and the value of nothing" (Wilde, 1998, p. 38).

6.3. Depression of Pandemic:

Apart from child and drug abuse, India is also combating an orphan crisis after the COVID-19 pandemic. Like Shiva, millions of children want to build time machines to reunite with their deceased parents, especially after this COVID-19 crisis. The study in *The Lancet* reports that more than nineteen lakh children in India became orphans due to COVID-19 between March

2020 and October 2021. On the other hand, India has always had a low rate of adoption, and this pandemic crisis has made it worse. It created a scenario where those orphan children were vulnerable to abuse and trafficking. Likewise, unemployment is another crisis as a consequence of COVID-19. Even before the epidemic, the youth unemployment rate was high. The epidemic has just aggravated the rate of jobless youngsters. The Centre for Monitoring Indian Economy states that there were almost thirty-six million jobless Indians between the ages of eighteen and twenty-nine in 2021, while many more had opted for lower-paying jobs like Nala.

6.4. Self - Genocidal Massacres:

The evidence provided above demonstrates unequivocally that numerous victims of child abuse, drug abuse, and depression have been living in India and that their lives have been irreversibly altered. Moreover, the presence and absence of their traumatic existence are still imperceptible, just like Kali is in this film. Besides, suicide is another silent epidemic that has been claiming thousands of lives every year for decades. In other words, thousands of genocidal massacres are unnoticeably occurring every year, as denoted in this film. According to the released data of the National Crime Records Bureau (NCRB) for 2021, there were 1,64,033 people who claimed their lives for various reasons in 2021, which indicates that 450 individuals commit suicide each and every day of the year. In addition, up to fifty people claim their lives each week in India as a result of issues with their careers or workplaces, which is higher than the previous year. In particular, the highest rates of suicide cases reported in 2021 were among daily wage employees, self-employed individuals, the unemployed, and homemakers. Like Kali in this film, people in today's materialistic world have surrendered unwittingly to their vices, which has made them act like puppets, when they lost their ropes it led them to become lost within the chaos of their minds. Their life is precious than the materialistic desire. Moreover, they forget, "People can't have everything they want. People should know that; it's a rule; people can have some of the things they want, but they can't have everything" (1960, p. 52).

7. DISCUSSION AND CONCLUSIONS

Memory is more personal, thus it is more creative and more self-destructive. Awe is not a film about the subconscious of a single woman named Kali and her traumatic existence as well as her social anxiety. This film is more than psychology; it's about the psychosocial crisis. It is evident from the supplied data that Kali embodies the innermost conflicts and hardships of the modern Indian generation. Every crisis and anxiety in society as well as humanity is just an outrage of Kali's childhood trauma. Her society made her suffer with androphobia and turned her to become a misanthropist throughout her anathematized existence.

Childhood is the blissful stage of life where one learns to live with the beauty of this world. It is the stage of both innocence and enlightened ignorance. As pure as a crystal, they never had any worry or anxiety at that age. In addition, children are essential to preserving both a memorable present and hope for the future. Their lives are the source of innovation and enhancement for both the present and the future worlds. Some generations back, children learned bad or good touch only after they reached adolescence or puberty. Because of the cruel desires and unkind actions of a few sick-minded people in society, it has become necessary to teach children at the age of innocence about bad and good touch. However, physical or mental abuse of a child is the most heinous crime since it leaves a lasting imprint on their mind forever. Child abuse is a global epidemic. Because the world is occupied with mixed breeds of human minds, some humans have died for their children, and some ogres have killed their own children.

On the other hand, child abuse is inextricably linked to drug addiction in most incidents. For many children, the ideal family is still a fantasy. Addiction to drugs such as alcohol, cocaine, heroin, or any number of other drugs makes parents act more aggressive toward their children and less responsible for taking care of them. Besides that, some children and adolescents have dealt with a multitude of difficulties and losses in their lives, but there is no one to share their

agony or protect them from such abuses. Most of the time, these abused, unloved, and traceless children are often either the victims or the perpetrators of social evils and social injustice. Just like Kali, a substantial percentage of people all over the world still live with depression from childhood. Additionally, these undetectable depressive traumatic memories of childhood often entail the threat of self-genocide. However, the solution to the existence of those children still remains contingent on humanity. This study concluded with the statement of Toni Morrison, “A child. New life. Immune to evil or illness, protected from kidnap, beatings, rape, racism, insult, hurt, self-loathing, abandonment. Error-free. All goodness. Minus wrath. So they believe” (Morrison, 2016, p. 175). This research is not suggesting an ideal world or a utopian society; it just recommends a harmless and peaceful place for children to live.

8. FURTHER STUDY

This study so far has delved deep into childhood traumatic memories and their effects on a single woman named Kali in the film *Awe*, through the lens of narrative technique and psychosocial aspects. This study could be extended from the standpoint of post-humanism and apocalyptic literature. Because the shades of broken people like Kali have nothing to be concerned about losing and have no fear of destroying themselves or others. Their existence is on the extinct edge of humanity. However, their traumatic existence has been imposed on them from their childhood, which could further be studied in a scientific approach. Hence, the current study with that concern defers future research on behavioural and addiction psychology.

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A SMALL INVESTIGATION SEXUAL CONTRACT THEORY

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ABSTRACT

Gender equality is one of the most salient issues from a feminist perspective in today's world. Many feminists have explained why women should have access to equal rights and liberty in our society and how to spread awareness in societies about gender equality. In the notion of these issues, I shall examine the three types of contract theories - Marriage contract, Prostitution contract and Surrogacy contract, described in the sexual contract theory by Carole Pateman in her famous book titled "The Sexual Contract". The book recounts the story of political rights as patriarchal or sex rights and the power men exert over women. In her book, she questions the reason for not including sexual contract theory by various contractarian theorists in the Original contract. Furthermore, if a woman does not enter into an Original and Social contract, then why people should force a woman to enter into a Marriage contract?

Index Terms: Rights, Equal Liberty, Marriage Contract, Prostitution Contract, and Surrogacy Contract.

INTRODUCTION

In this paper, I shall examine the various types of contract theories which are known as sexual contract theory like a marriage contract, Prostitution contract, surrogacy contract, all these types of contracts have been explained in the very famous book 'The Sexual Contract' written by Carole Pateman. In her book, she has tried to put light on the sexual contract which is as important as original contract theory is. Basically, she wants to know the reason for not including sexual contract theory by various contractarian theorists in the original contract and if a woman does not enter into an original and social contract then why should many people force a woman to enter into marriage contract? I would like to investigate to find the solution regarding this question. Firstly I will explain marriage contract from Carole's point of view which is a kind of contract in which women become subordinates as a labourer and men become master for creating the patriarchal system in civil society. The next is Prostitution contract which is, Carole says, an integral part of patriarchal capitalism; this is another way by which man can buy sexual access to women's bodies for their sexual desire. This also shows how a woman becomes a mere property for a man. The last contract is surrogacy in which women bodies are used by men but without a direct sexual relationship. This contract shows that how father's rights are reappearing in a new form and how paternal system is shifting towards the modern patriarchy system. For removing this system, Carole introduces her book by naming it Sexual Contract.

CAROLE PATEMAN'S VIEW ON SEXUAL CONTRACT THEORY

Contract theory is not just the imagination of true agreements; it is concerned with more than that as contract theorists are firm about how vital civic establishments can be understood correctly. But the social contract and the employment contract are not as stated as they needed to. The other contracts like marriage, Prostitution and surrogate motherhood are ignored by many contractarian theorists and do not give much attention to these issues because they are related to women and just because of it Carole introduces The Sexual Contract to take up these contracts as important as social and original contracts are.

The Sexual Contract is the story of political right as patriarchal right or sex right, the power that men exercise over women. But from Carole point of view, the Sexual Contract is the story about women's subjection which is created in the original contract, the half of the story is missing in

the original contract as it was not noticed by various political thinkers because they interpreted patriarchy as the paternal rule. To complete the story of original contract, Carole introduces Marriage contract in her new theory known as Sexual Contract theory.

MARRIAGE CONTRACT

In her book, she largely discusses the classic work of social contract theory like classic theorist Hobbes claims that women naturally lack the attributes and capacities of individuals. According to him, women are not part of the original contract through which men transform their natural freedom into the security of civil freedom and women as the subject of the contract. By analyzing this argument she questions why classic theorist insists that in civil society women cannot enter into the social and original contract but must be entered into the marriage contract? The Hobbes argument shows that he was one of the strongest patriarchalism as his marriage contract does not seek advantage for the women but to secure the patriarchal system for men and the subjection of women's bodies in civil society through this contract.

It seems clear that the marriage contract is not like an employment contract if it would be then the sexual contract forgot again.

In Carole's view, many feminists criticize that marriage is not a proper contract but not everyone agrees with it as some of feminists believe that marriage should become a purely contractual relationship by which women also participate in the public sphere like their husbands. There are some husbands who allow their wives equal pleasure to their own. However, the wife's enjoyment depends entirely on the benevolence of her husband and what he does, or does not, permit her to do. This statement proves that women have been placed for only private sphere and their husbands who represent the family in the public sphere. If women are not able to participate in the social contract then they must be entered into the marriage contract and this contract should be a pure contract without any gender discrimination in it.

Next Carole points out that if marriage is to be truly contractual, then the sexual difference must become irrelevant to the marriage contract; 'husband' and 'wife' must no longer be sexually determined. Thus, in a proper marriage contract, two individuals would agree on whatever terms were advantageous to them both. The parties to such a contract would not be a 'man' and a 'woman' but two owners of property in their person who has come to an agreement about their property to their mutual advantage. I agree with her claim because if it happens then the patriarchal subjection of women must be removed from the modern civil society and after marriage, the family must not be introduced by husband alone but by both husband and wife in public sphere. This is the mark to show that men and women both are a rational being and therefore must be treated equally in civil society.

The story of sexual contract explains how the contract is the medium through which patriarchal right is created and upheld. For the marriage to become merely a contract of sexual use or more accurately; for sexual relation to taking the form of universal prostitution would mark the political defeat of women as women. When contract and the individual hold full sway under the flag of civil freedom, women are left with no alternative but to become replicas of men. In the victory of contract, the patriarchal construction of sexual difference as mastery and subjection remains intact but repressed.

PROSTITUTION CONTRACT

Another contract that Carole talks about in the Sexual Contract is prostitution which is an integral part of patriarchal capitalism. The marriage is not only one way for men to fulfill their sexual desire, there are other ways by which men can buy sexual access to women's bodies in the capitalist market known as Prostitution contract, it is like private enterprise and the contract between client and prostitute seems as a private arrangement between buyer and a seller.

Prostitutes are also paid in return for their bodies like workers for their work. The marriage contract is different from prostitution contract as Simone de Beauvoir sees that a wife is hired for life by one man, but the prostitution has several clients who pay her by the piece. The one is protected by one male against all the other, the other is defended by all against the exclusive tyranny of each. This clearly shows that even in prostitution contract the patriarchy system is still more powerful and the subjection of women by men still happens in modern civil society. From this discussion a question arises, is prostitution contract different from employment contract? Carole affirmatively says that these two contracts are different and explains, in her Sexual Contract theory, that the prostitution contract is a contract with a woman and therefore cannot be the same as the employment contract. Even though the prostitution contract is sealed in the capitalist market, it still differs in some significant respects from the employment contract.

The next question regarding prostitution contract, is there any such type of satisfaction or desire exist from the sides, prostitute and man? Carole negatively confirms it and I agree with her answer because the Prostitution is nothing but the use of a woman's body by a man for his own satisfaction. From this notion, it is very well clear that the subjection of women and the master as men never goes ended in the civil society, this prostitution contract creates a new type of patriarchy system in the modern world. This contract also reveals that how women become a mere object or a type of property for men and it is also indicated that how the dehumanization of women is happening in the modern society. Therefore, this contract also brings the advantage for men not for women.

SURROGACY CONTRACT

The last contract is Surrogacy contract in Carole's The Sexual Contract and this contract announces that how father right is reappeared in the new form of contract for women. Some people think that prostitution and surrogate contract are same because in both the contracts, women receive an amount in the exchange of her service toward the men in the capitalist market, but this is not true because there is a difference between surrogate contract and prostitution contract. The first point which creates difference is that a prostitute doesn't sell her body, she sells sexual services, on the other hand, the surrogacy contract is not the case that a body being sold but merely a service. The next point which creates differences is that a man doesn't make direct sexual use of a woman's body, rather his use is indirect via artificial insemination but in prostitution contract, it is opposite from surrogate contract here, man makes direct sexual use of women body in the exchange of money. By explaining all these sexual contracts in her book Carole creates argument against the contractarian thinkers that if women are not entered in original contract then why they force to enter into sexual contract and if the contractarian wants the same then they must have added these contracts in original contract by which many problems can be solved like gender discrimination, patriarchy system in civil society and the subjection of women by the mastery of men.

CONCLUSION

If women do not enter into the social contract then why some people forces them to enter into the sexual contact? All the sexual contracts which are related to only women must be made like pure contracts by which the gender inequality must not take place in the society, secondly, contractarian theorists must have added sexual contract into original contract or it must be known as original contract, by doing this, it will help women to give them opportunity to participate in public sphere and also those women who are in marriage contract must be able to represent their family along with their husband in the modern society without possibility of any discrimination between men and women.

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FOOT NOTES

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A STATISTICAL ASSESSMENT OF THE CHANGING TRENDS OF THE GROUNDWATER LEVEL IN THE SURI SADAR SUB-DIVISION OF THE BIRBHUM DISTRICT IN WEST BENGAL

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ABSTRACT

Groundwater depletion is a newly recognised international issue due to the need to supply rising demand of the society. The groundwater level is rapidly decreasing due to climate change and excessive groundwater use. The study of the groundwater level through space and time of the groundwater level's trend into the future, are becoming increasingly important components of sustainable groundwater management. The Mann-Kendall non-parametric test was employed to examine the groundwater level's trend in this research. The magnitude of the linear trend in the time series of groundwater levels has been assessed using the Sen's slope estimator. The data from each station was investigated by using a 5% level of significance to test the null hypothesis (H_0). Eight out of twenty-five wells show a considerable decline in groundwater level during the pre-monsoon season, whereas two wells show an increasing tendency. Only 4 well stations exhibited a substantial falling trend in the post-monsoon season.

Keywords: Mann-Kendall test; Sen's slope, Suri Sadar Sub-division; Groundwater level trend

1. INTRODUCTION

We rely heavily on groundwater, which is a renewable resource, for our survival as a species. The rapid growth of urbanisation, industry, and human population has resulted in a dramatic rise in the need for groundwater. Groundwater depletion is a new worldwide issue caused by the need to provide a rising population with water (Anand et al., 2020; Gibrilla et al., 2018; Halder et al., 2020; Rahman et al., 2016). Groundwater levels are rapidly decreasing as a result of climate change and extensive overuse. The normal water supply was interrupted and the infiltration rate was slowed as a result of the massive number of dams built across the rivers. Furthermore, the usual pace of precipitation has been hindered by global warming, which has been caused by the fast expansion of industry. Therefore, rising temperatures and less precipitation immediately speed up the pace at which groundwater is depleted (Green, 2016; Halder et al., 2020).

The study of the groundwater level through space and time of the groundwater level's trend into the future, are becoming increasingly important components of sustainable groundwater management (Gibrilla et al., 2018). Policymakers may use time series analysis to track the movement of groundwater levels and find the most efficient path toward the best and most sustainable usage of groundwater resources. Researchers in a wide range of fields utilise a variety of time series analysis techniques. Mann-Kendall non-parametric test and Sen's slope estimator are two of the most popular and commonly used procedures for assessing trends in time series data (Kendall M.C., 1970; Mann, 1945; Sen, 1968). The non-parametric test trend of the groundwater level may be measured statistically with the use of the Mann-Kendall test. The magnitude of the linear trend in the time series of groundwater levels may be estimated using Sen's slope (Gibrilla et al., 2018). Other temporal datasets than groundwater levels may be investigated for trends as well, such as temperature, precipitation, air pollution, etc (Lanzante 1996; Hamed 2008; Mondal et al. 2012; Yadav et al. 2014, Ahmad et al. 2015; Hussain et al. 2015; Karmeshu Supervisor Frederick Scatena 2015; Anie John and Brema 2018; Gedefaw et al. 2018; Panda and Sahu 2019; Yagbasan and Demir 2020).

Anand et al. (2020) have used GIS to identify long-term trends in the groundwater level and to conduct a spatial and temporal analysis of the groundwater's level. Researchers have examined groundwater in both space and time, utilising techniques like Mann-Kendall statistics and Sen's slope estimations (Anand et al., 2020; Gibrilla et al., 2018; Halder et al., 2020; Patle et al., 2015; Rahman et al., 2016; Singh et al., 2015).

Despite the fact that a number of publications on groundwater level trend identification using the Mann-Kendall non-parametric have come before it, this study contributes significantly to the field. There has not been any substantial research on identifying trends in groundwater levels in the Suri Sadar Sub-division of the Birbhum district in West Bengal.

2. MATERIALS AND METHODS

Description of the Test Area

There are three Sub-Division divisions in the Birbhum district, one of which is called Suri Sadar. The 2011 Census reported its population was 11,21,871; it has an area of 1782.72 km² and is located in the southwestern section of Birbhum district. The area includes the coordinates 23° 41' 30" N to 23° 07' 40" N and 87° 05' 20" E to 87° 46' 20" E. There are seven Community Development Blocks that make up the test area: Saithia, Mohammad Bazar, Rajnagar, Dubrajpur, Khoyrasole, Suri-I, and Suri-II (Figure 1).

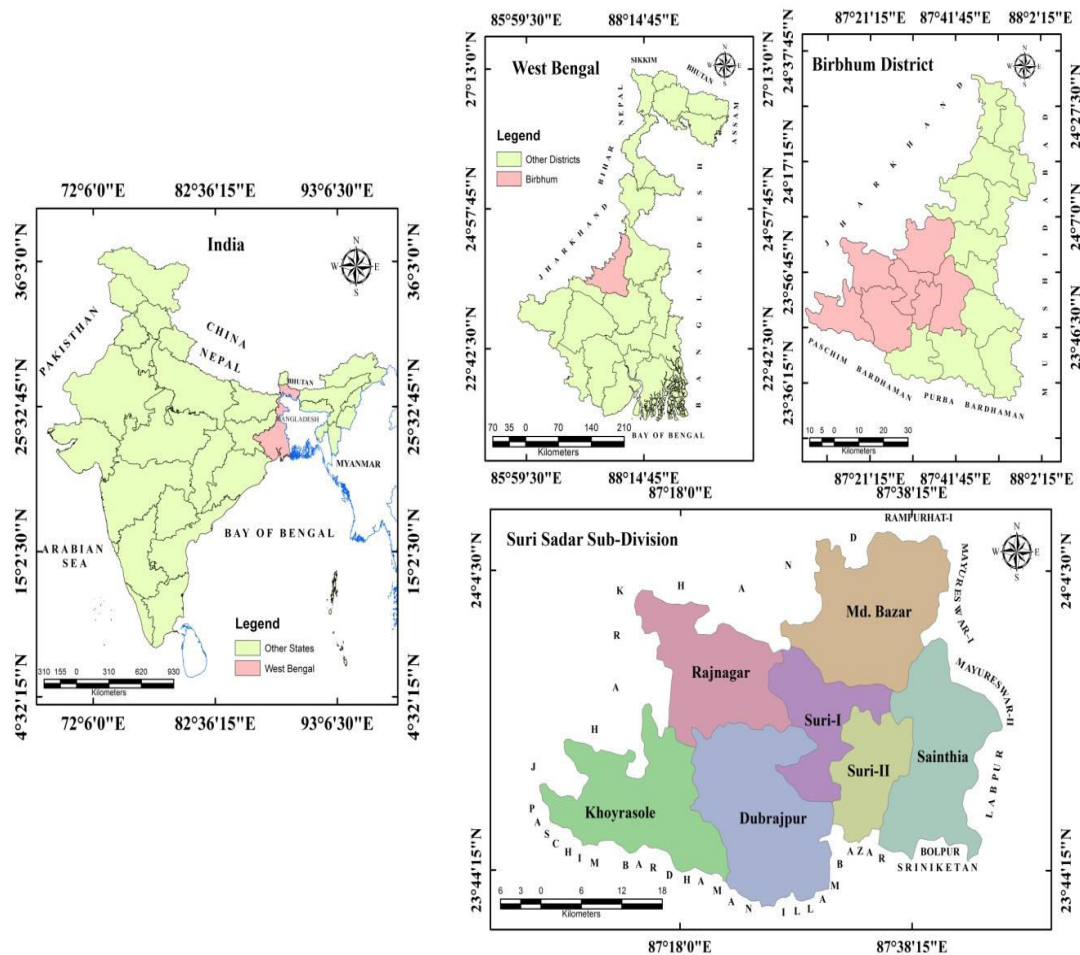


Figure 1: Location of the study area

MATERIALS USED AND METHODOLOGY

Data from the Water Resources Information System of India has been gathered annually to track the groundwater level at 25 different wells throughout the pre-monsoon and post-monsoon seasons. The evaluation took into account data from all 20 years of the dataset (1998-2018). The Mann-Kendall non-parametric test was used to analyse the groundwater level trend, and Sen's slope was computed to understand the magnitude of the linear trend. The whole workflow is laid out in the figure 2.

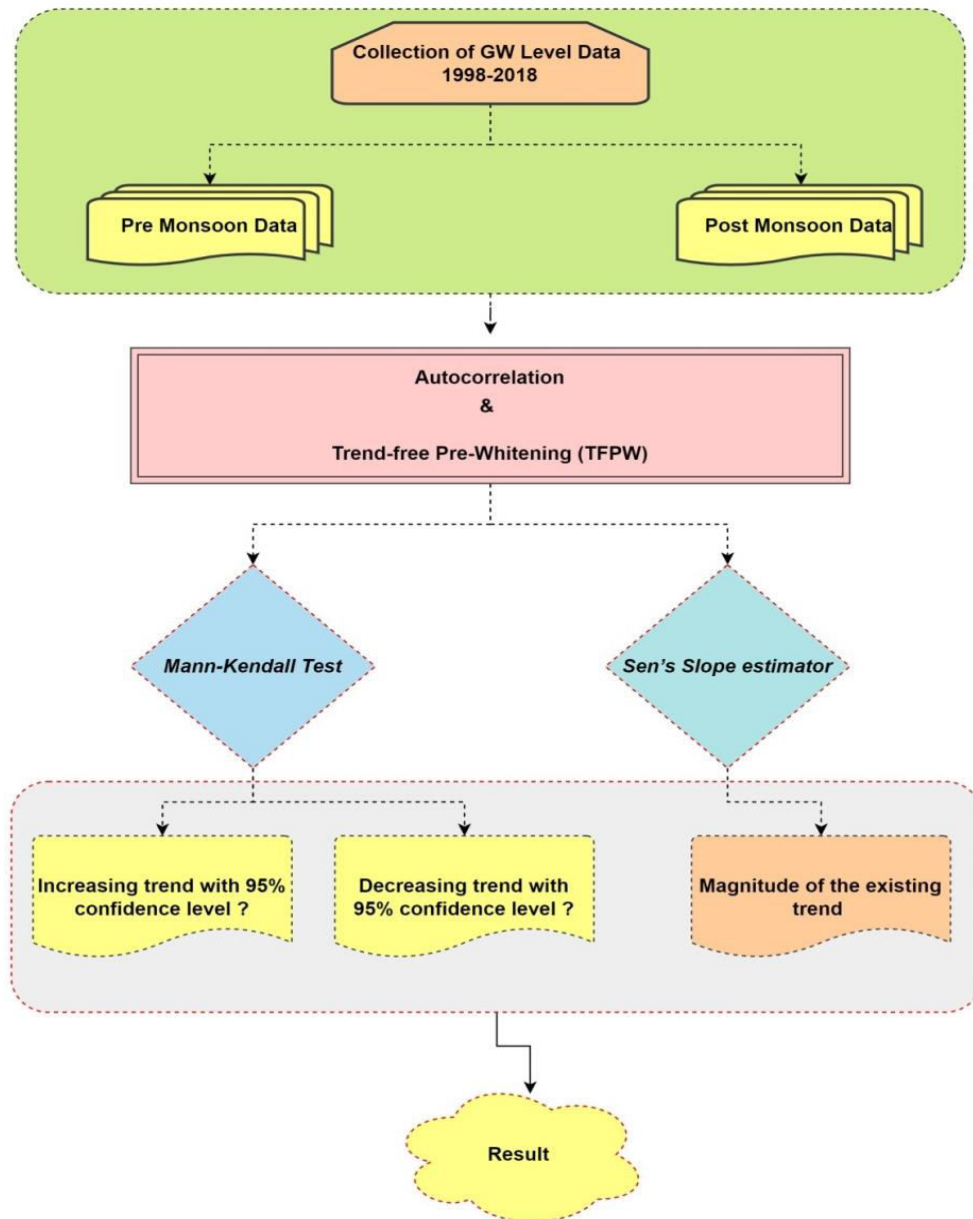


Figure 2: Flowchart of the Mann-Kendall non-parametric test

- **Autocorrelation And Trend-free Pre-Whitening (TFPW)**

All the data has been checked as necessary before the Mann-Kendall non-parametric test is applied, and Sen's slope estimations are used from the chosen stations. The following formula has been used to get the lag-1 serial correlation coefficients, which have the potential to identify randomness in the groundwater level data of each station.

$$r_1 = \frac{\sum_{i=1}^{n-1} (X_i - \bar{X})(X_{i+1} - \bar{X})}{\sum_{i=1}^n (X_i - \bar{X})^2}$$

The lag-1 serial autocorrelation coefficient (r_1) has been tested against the null hypothesis at a 95% confidence interval, using a two-tailed test. Following formula has been used to conduct the analysis-

$$r_1(95\%) = \frac{-1 \pm 1.96\sqrt{n-2}}{n-1}$$

• Mann-Kendall Test

This technique is often used to probe the significance of a pattern in a time series of data. As a result of its flexibility, this method has garnered widespread praise. The temporal dataset used in this non-parametric test should not be a normal distribution, and breaks in the data are permitted.

This non-parametric test may be used to determine whether there is statistical significance in the dataset's trend. The null hypothesis (H_0) reveals there is no trend of groundwater level change. The alternative hypothesis (H_1) confirms there is a significant trend (increasing or decreasing) of groundwater level change over time.

The statistical method for computing the Mann-Kendall test has been broken down into the following steps:

$$S = \sum_{i=1}^{n-1} \sum_{j=i+1}^n \text{sign}(x_j - x_i)$$

$$\text{sign}(x_j - x_i) = \begin{cases} +1 & \text{if } (x_j - x_i) > 0 \\ 0 & \text{if } (x_j - x_i) = 0 \\ -1 & \text{if } (x_j - x_i) < 0 \end{cases}$$

The value of S is the Mann-Kendall statistics denote the direction of the trend. A positive value of S means an increasing trend, and a negative value indicates a decreasing trend.

The variance is calculated using the following formula:

$$\text{Var}(S) = \frac{n(n-1)(2n+5) - \sum_{i=1}^m t_i(t_i-1)(2t_i+5)}{18}$$

Where

n is the number of data points, m is the number of tied groups (set of samples having the same value) and t_i the number of ties with extent i.

Now, the test statistics Z is computed as-

$$Z = \begin{cases} \frac{s-1}{\sqrt{\text{Var}(S)}} & \text{if } S > 0 \\ 0 & \text{if } S = 0 \\ \frac{s+1}{\sqrt{\text{Var}(S)}} & \text{if } S < 0 \end{cases}$$

It is possible to understand, with the help of the Z statistics, whether the null hypothesis (that there is no trend) is accepted or rejected at a chosen significance level. In the current

investigation, a significant level $\alpha = 0.05$ was used, which corresponds to a degree of confidence of 95%.

- **Sen's Slope estimator**

This method is used to get an estimate of the magnitude of the actual observed trend (Anand et al., 2020; Gibrilla et al., 2018; Rahman et al., 2016). For the purpose of estimating the slope of the trend, the following processes have been followed:

$$Q_i = \frac{X_j - X_k}{j - k}$$

Where Q indicates the magnitude of the slope, X_j and X_k are data values at times j and k ($j > k$), respectively.

Sen's slope estimator (Q_i) is the median of the number of observations (N). Now if the number of observations (N) is odd, Sen's estimator is calculated using the following formula-

$$Q_{med} = Q\left(\frac{(N+1)}{2}\right)$$

If the number of observations (N) is even, then the following formula is used-

$$Q_{med} = \frac{1}{2} \left[Q\left(\frac{N}{2}\right) + Q\left\{\frac{(N+2)}{2}\right\} \right]$$

When the Q_{med} has a positive value, it indicates that the dataset has increasing trend, and the inverse occurs when the value is negative. The confidence interval of the Q_{med} at specific probability is used to identify whether the median slope is statistically different from zero or not. It is calculated as-

$$Ca = Z_{1-\frac{\alpha}{2}} \sqrt{\text{Var}(s)}$$

Where $\text{Var}(s)$ is obtained from Equation no. 3, $Z_{1-\alpha/2}$ is usually obtained from the standard normal distribution table. The confidence levels in this study were computed at $\alpha=0.05$ significant level.

3. RESULT AND DISCUSSION

Trend Analysis of Groundwater Level

Using groundwater level data from 1998 to 2018, the Mann-Kendal test was performed to determine the trends in the data. The results of a 95%-significant level Mann-Kendall test are summarised in Table 1.

Table 1: Pre- and post-monsoon trends in groundwater levels at various locations

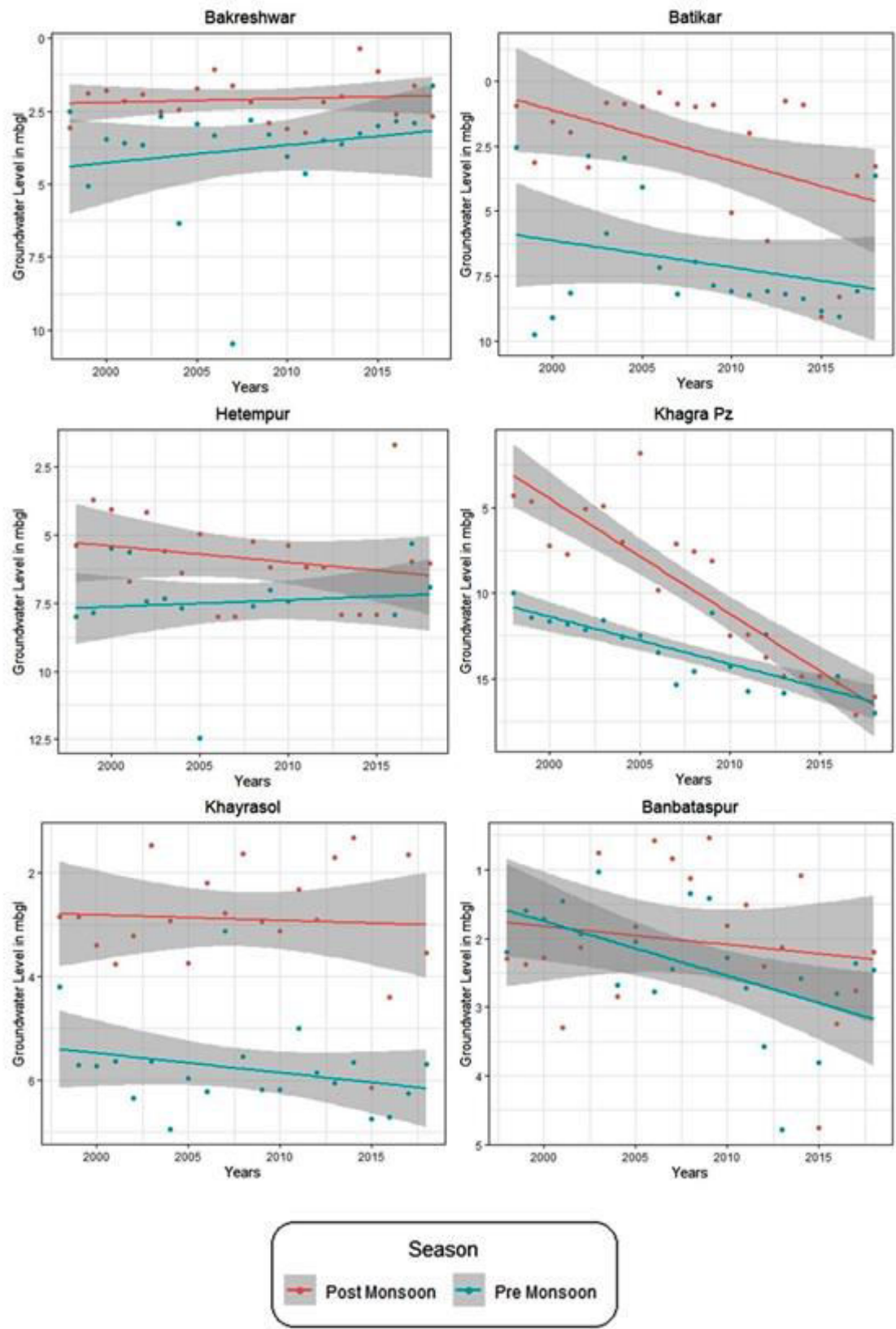
Well No.	Well Location	Latitude	Longitude	Pre-monsoon					Post-monsoon				
				MK Z value	Sen's slope	p-value	Significant at 95% confidence level	Trend	MK Z value	Sen's slope	p-value	Significant at 95% confidence level	Trend
1	Bakreshwar	23.88194	87.37944	-1.23807	-0.04107	0.21570	□	Rising	-0.03	-0.004	0.97590	□	Rising
2	Batkar	23.79167	87.49167	1.54333	0.11111	0.12280	□	Dropping	1.39	0.089	0.16460	□	Dropping
3	Hetempur	23.78528	87.40056	-0.42502	-0.00517	0.67080	□	Rising	1.30	0.085	0.19280	□	Dropping
4	Khagra Pz	23.76694	87.42722	4.17416	0.28681	0.00003	□	Dropping	4.90	0.634	0.00000	□	Dropping
5	Khayrasol	23.79167	87.23333	1.23807	0.02555	0.21570	□	Dropping	-0.27	-0.010	0.78580	□	Rising
6	Banbatspur	24.04389	87.67139	2.50634	0.06784	0.01220	□	Dropping	0.18	0.009	0.85620	□	Dropping
7	Damra	24.10500	87.68000	3.23402	0.15649	0.00122	□	Dropping	-1.66	-0.049	0.09644	□	Rising
8	Damra I	24.10833	87.67778	1.45011	0.10539	0.14700	□	Dropping	0.00	0.000	1.00000	□	Dropping
9	Duecha Pz	24.04194	87.58444	3.35492	0.07643	0.00079	□	Dropping	0.21	0.008	0.83210	□	Dropping
10	Ganpuri	24.05972	87.67306	1.36010	0.07333	0.17380	□	Dropping	-0.42	-0.026	0.67170	□	Rising
11	Jaypur	23.97778	87.55472	1.32927	0.03950	0.18380	□	Dropping	0.88	0.045	0.38120	□	Dropping
12	Khayrakuri	23.95333	87.52500	0.96674	0.04940	0.33370	□	Dropping	0.94	0.037	0.34920	□	Dropping
13	Mohamad Bazar	23.98306	87.58222	-1.42621	-0.03626	0.15380	□	Rising	1.09	0.081	0.27620	□	Dropping
14	Sheorakuri	23.97056	87.54861	1.90241	0.09584	0.05712	□	Dropping	1.72	0.087	0.08521	□	Dropping
15	Chandrapur	23.91667	87.40000	-0.78620	-0.02450	0.43180	□	Dropping	-1.75	-0.069	0.07937	□	Rising
16	Rajnagar	23.95083	87.31278	-2.15053	-0.08567	0.03151	□	Rising	1.48	0.067	0.13810	□	Dropping
17	Ahmedpur	23.84167	87.69167	0.90993	0.12778	0.36290	□	Dropping	3.72	0.468	0.00020	□	Dropping
18	Sainthia	23.95000	87.66667	1.87306	0.16500	0.06106	□	Dropping	1.03	0.124	0.30430	□	Dropping
19	Sainthia Pz	23.95139	87.67278	2.29881	0.20583	0.02152	□	Dropping	2.27	0.255	0.02323	□	Dropping
20	Bhurkona	23.82972	87.50806	-2.60846	-0.06647	0.00910	□	Rising	-1.36	-0.040	0.17330	□	Rising
21	Bhurkona I	23.82972	87.50750	2.21790	0.03641	0.02656	□	Dropping	1.55	0.028	0.12230	□	Dropping
22	Garuijora	23.87861	87.52750	0.96674	0.03900	0.33370	□	Dropping	-0.21	-0.008	0.83260	□	Rising
23	Singur	23.87278	87.52111	2.08803	0.04286	0.03679	□	Dropping	1.63	0.023	0.10250	□	Dropping
24	Siuri	23.88333	87.51667	-1.63787	-0.10493	0.10140	□	Rising	1.45	0.075	0.14650	□	Dropping
25	Purandarpur Pz	23.85806	87.58667	3.95580	0.42938	0.00008	□	Dropping	3.23	0.23	0.00122	□	Dropping

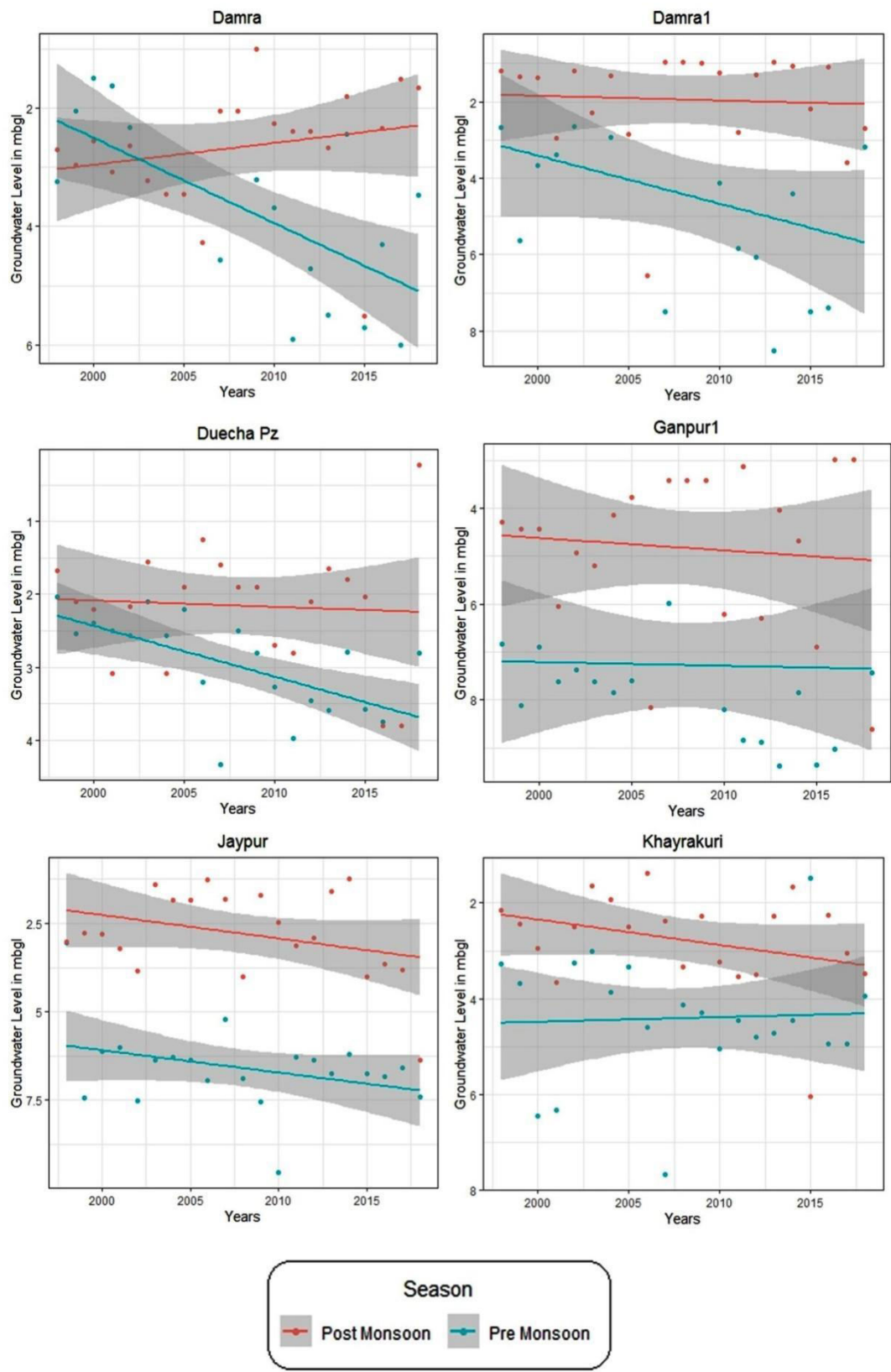
Source: Calculated by the researcher based on India-WRIS portal

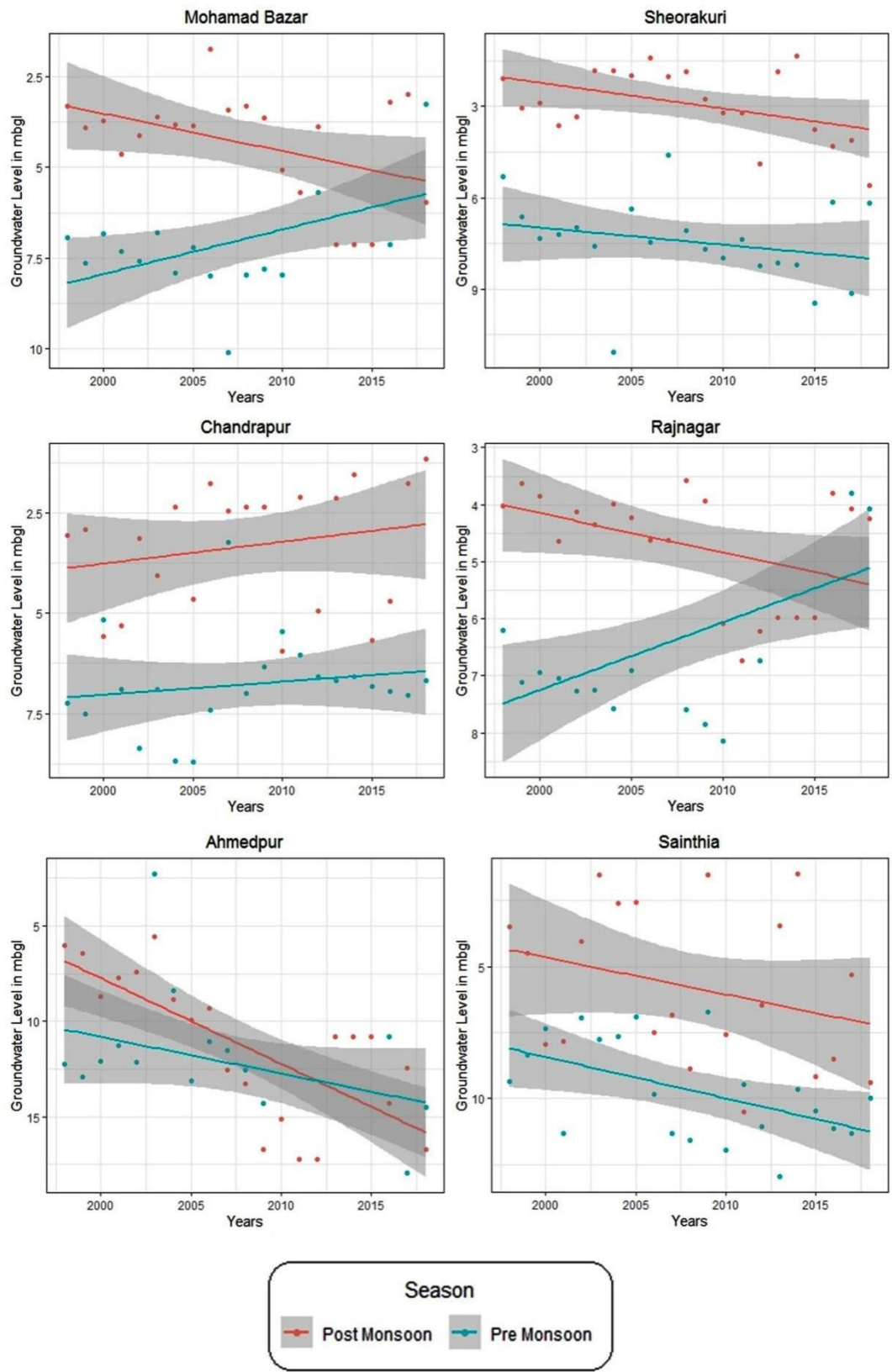
The data from each station was analysed by testing the null hypothesis (H_0) at a 5% significance level. According to the null hypothesis, groundwater level depth at the relevant stations does not follow a significant pattern. The results show that the Mann-Kendall non-parametric test's Z value is either above or below the critical value of Z_α at certain sites. There may be a strong trend toward groundwater depletion if the null hypothesis is rejected for a number of locations. In addition, groundwater level trends may be either decreasing or increasing across stations, depending on whether the Q_i value of Sen's slope is negative or positive (Table 1). Similarly, Table 1 also displays the p-value. The p-value is a measure of probability. Depending on the probability value, the test's significance may shift. It turns out that some of the p-values are significantly smaller than 0.05. This means that we must stick with the alternative hypothesis (H_1) and reject the null (H_0). However, several p-values are larger than 0.05, indicating that the null hypothesis (H_0) must be accepted and that there is no significant trend in groundwater depletion at the relevant stations.

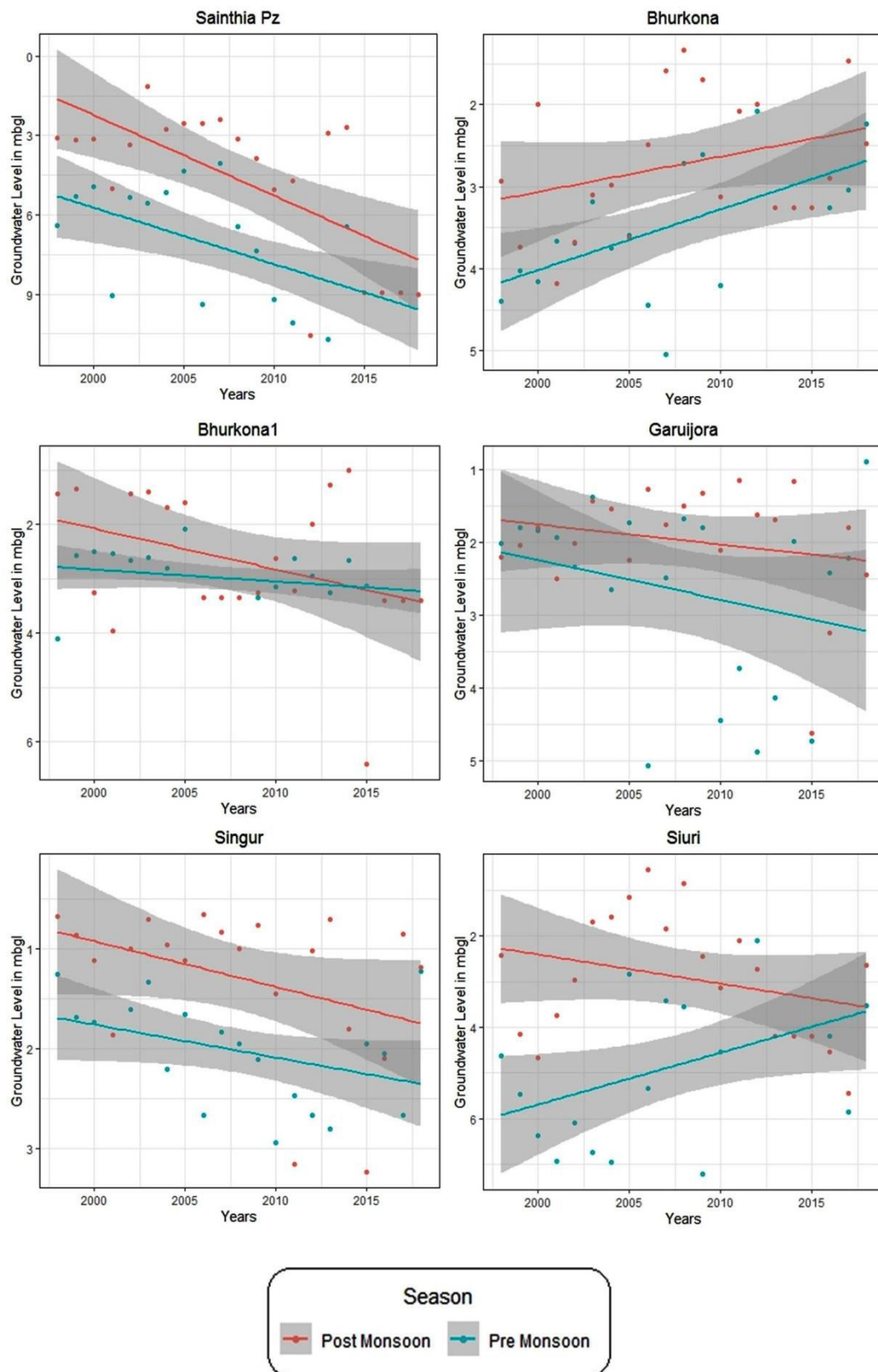
Some stations, including Khagra Pz, Banbatspur, Damra, Duecha Pz, Sainthia Pz, Bhurkona I, Singur, and Purandarpur Pz, have their groundwater levels fall significantly in pre-monsoon season, while others, like Rajnagar and Bhurkona, experience rise. At the remaining locations, groundwater is either decreasing or increasing, although this trend is statistically insignificant. Therefore, their trend's nature is ambiguous (Table 1).

Only the stations in Khagra Pz, Ahmedpur, Sainthia Pz, and Purandarpur Pz show a substantial downward tendency in the post-monsoon period. There is no consistent trend in the groundwater level at the other locations (Table 1).









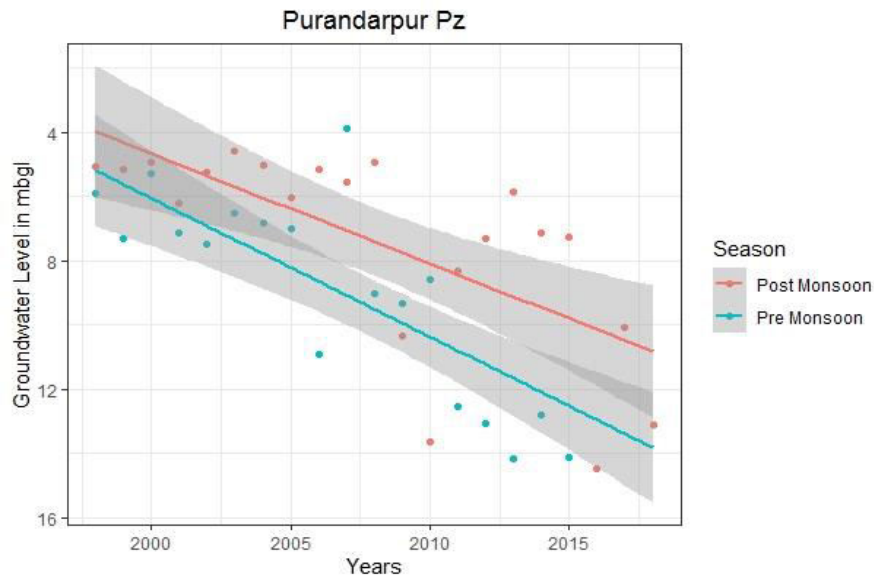


Figure 3: Trend of groundwater level from 1998 to 2018 for the selected wells in pre-monsoon and post-monsoon period

Source: INDIA-WRIS portal of National Water Informatics Centre

During the pre- and post-monsoon seasons, the groundwater level trend is shown in Figure 3 for the investigated wells. Both pre-monsoon- and post-monsoon seasons, the level of groundwater at Bakreshwar station has been increasing. Due to its proximity to Bakreshwar dam, groundwater recharge has a larger role in this monitoring station's coverage area than in others. The Batikar monitoring station noted a falling pattern for both time periods. The Hetempur station's observations showed a decreasing tendency in post-monsoon and an increasing trend pre-monsoon season. For both seasons groundwater levels have dropped far faster at Khagra Pz station than at any other major station. Khyrasol station had a falling trend in pre-monsoon, but groundwater levels fluctuated wildly in post-monsoon season. Even though the Banbataspur station saw a downward trend throughout both periods, the post-monsoon period was characterized by more volatility.

Change of Groundwater Level

From 1998 to 2018, drastic changes in groundwater level has been noticed in both pre-monsoon and post-monsoon seasons. Spatial pattern of groundwater level change is clearly described in the Fig. 4 for both the seasons. In pre-monsoon season, eastern and southern parts of the region noticed remarkable fall of groundwater level, and northwestern segment of the region reported relatively lower depletion and recharge. Maximum groundwater depletion has been observed in the Suri-II and Dubrajpur C.D. blocks. Table 2 demonstrate the area wise groundwater depletion. Situation is much more critical in post-monsoon season. In post-monsoon season almost entire Sainthia block, part of Suri-II, and Dubrajpur block groundwater depleted more than 5 meter. On the other hand, relatively lower depletion and recharge is noticed in Rajnagar, part of Khoyrasole, Dubrajpur, Suri-I, Suri-II, and Md. Bazar blocks.

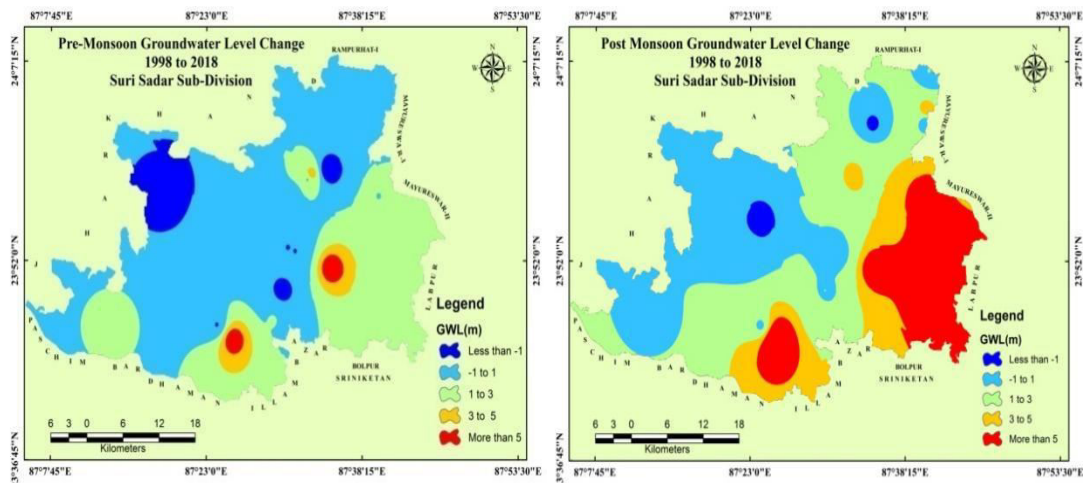


Figure 4: Spatial Change of groundwater level from 1998 to 2018 in pre-monsoon and post-monsoon seasons

Table 2: Area under different range of groundwater level change in pre-monsoon and post-monsoon periods of 1998 and 2018

Groundwater Level Change	1998 to 2018			
	Pre-Monsoon		Post-Monsoon	
	Area in KM ²	Percent of area to total area	Area in KM ²	Percent of area to total area
Less than -1	110.51	6.20	21.73	1.22
-1 to 1	1030.14	57.78	595.69	33.41
1 to 3	571.50	32.06	609.51	34.19
3 to 5	51.26	2.88	226.19	12.69
More than 5	19.31	1.08	329.60	18.49

Source: Calculated by the researcher based on India-WRIS portal

According to Table 2, less than -1 meter groundwater level change, which indicates more than 1 meter recharge, was observed in 6.20 percent of the area, -1 to 1 meter change was observed in the majority of the region, i.e., 57.78 percent of the area, 1 to 3 meters depletion was recorded in 32.06 percent of the area, 3 to 5 meters drop was observed in 2.88 percent of the area, and more than 5 meters drop was observed in 1.08 percent area of the region for pre-monsoon season during 1998 to 2018.

In contrast to this, post-monsoon season scenario is quite different. Only 1.22 percent area observed less than -1 meter groundwater level change or more than 1 meter recharge, 33.41 percent area occupied by -1 to 1 meter change of groundwater level, groundwater of 34.19 percent area depleted by 1 to 3 meters, 12.69 percent area found to be depleted by 3 to 5 meters, and 18.49 percent area by more than 5 meters.

4. CONCLUSION

The Mann-Kendall test and Sen's slope estimator method were used in the current work to conduct a long-term analysis of seasonal groundwater level changes for the years 1998–2018. Significant declining trend has been noticed in eight stations during pre-monsoon season, and four stations exhibited a substantial falling trend in the post-monsoon season. The increase in irrigated agriculture in the studied region may be mostly responsible for the fall in groundwater levels. It is essential to establish functional organisations and advance new rules and regulations for the use of groundwater. To stop groundwater depletion, the existing farming pattern must be altered, and innovative irrigation methods must be used.

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A STUDY OF DECISION MAKING STYLE OF STUDENT TEACHERS AT SECONDARY TEACHER TRAINING LEVEL

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ABSTRACT

This paper explores the decision making style of Arts and Science student-teachers of Akka Mahadevi women's university. Here researcher used 23year old student –teachers of university B. Ed students randomly , analyzing the data the result revealed that decision making style of student-teacher of science students is vigilance rather than Arts student-teacher and predominant decision style of women is vigilance while that men. There are individual difference in decision styles.

1. INTRODUCCION

When we face a problem life, we come across many alternatives, we have to choose one among them. For instance, selecting a dress, ordering for a dish in a restaurant, choosing a college major, selecting life partner, etc. This is known as decision making Decision making refers to the process of gathering information about relevant alternatives and making an appropriate choice. Some decisions may be simple while some others may be complex having lifelong consequence.

Decision Making Has Three Cornerstones:

The decision the process of deciding and the decision maker, Experts have classified decision into different types or styles. One such classification is that of Janis and Mann based on their conflict theory of decision making. They believed that human beings are Programmed with emotions and unconscious motives as well as with cognitive abilities. Whenever a Person has to make an important decision, intense conflicts arise. The most Prominent symptoms of such conflicts are hesitation, vacillation, feelings of uncertainty and the signs of emotional stress whenever the decision comes within the focus of attention. In such a situation, an individual adopts a style to overcome the conflict. The different strategies adopted are : Vigilance (v) – the tendency to search carefully for information, to consider many alternatives, to consider information without bias, and to evaluate alternatives carefully before making a choice. Hyper vigilance/panic(H) the tendency to make decisions impulsively and to look for quick, easy solutions to problems. Defensive avoidance (D)-the general tendency to try to avoid or escape having to make decisions. There are three in this: Fractionalization, Back passing and Procrastination. Rationalization- tendency to avoid the reality of decisions. This is achieved by ignoring or denying unpleasant aspects of the decision or by concentrating only on positive aspects of the choice. Buck-passing(B)-the tendency to leave the hard decisions, to others, to avoid taking responsibility for decision and to blame others when the decision is wrong. Procrastination(P)-the tendency to put off making decisions by doing other things or thinking about the decision for too long. Among these styles, vigilance is an effective style while others are defective.

Successful decision making involves certain important steps. The first one is appraising the challenge during which the Person recognises the challenge for what it is. Faulty assumptions and over simplification are to be avoided. The second steps is surveying the alternatives. Information about all Possible alternatives have to be collected. It is important to have an attitude of openness and flexibility in the third step, each alternative has to be evaluated for its gains and costs. The fourth step is to make a commitment to implement the decision. The final

is to adhere despite negative feedback. Each decision involves some risk and over-reaction to criticism and changing one's mind prematurely may not be appropriate.

The decision maker is an important constituent of decision making. A decision maker, while making a decision, utilizes the resources that one has in his/her repertoire such as Personality, experience, etc. It is in this context that assessment of the decision making style of a Person becomes important in counselling situations.

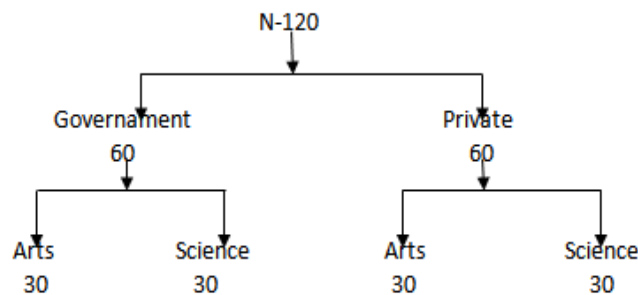
Statement of the Problem

To assess the decision making style of student – teachers.

2 METHOD

a. Sample

The subjects RN are 23 years old students-teachers studying colleges of Education.



b. Materials

Flinder's Decision Making Questionnaire-2(DMQ-2) and scoring key.

c. PROCEDURE:

The subject was seated comfortably and the Flind's Decision Making Questionnaire-@ was given. The following instructions were given: 'People differ in the way they go about making decision. Please indicate how you make decision by ticking() for each question the response which best fits your usual style; The subjects were was also told that there are no right or wrong answers and the answer that is true for him/her is the correct answer. Then the responses for each decision style were scored as per the scoring key and the scores were entered in the table. A high score in a decision style indicates a higher tendency to adopt that style.

3. RESULTSTS

Table-1: Showing the student-teachers data in the decision making styles

Group	N	V	H	D	R	B	P
All student teachers	120	100	40	60	30	20	40

Table-2: Showing the group data in the decision making styles

SL NO	GROUP	V	H	D	R	B	P
1	Government*	40	80	50	20	30	20
2	Private	60	40	80	30	20	20
3	Arts	30	30	40	70	30	40
4	Science	100	40	60	30	20	40
5	Kannada	70	60	3	40	80	20
Mean :Female		70.0	60.0	60.0	30.0	30.0	30.0
Mean : Males		50.0	40.0	50.0	50.0	40.0	30.0
Mean : Group		60.0	50.0	50.0	40.0	40.0	30.0

Bar diagram shows the score of males and females in decision making style.

4. DISCUSSION

The analysis of the subject R.N.'s data shows that the score in vigilant style is 100, in hyper-vigilance is 40, in defensive avoidance is 60, in rationalization is 30, in buck-passing is 20 and in procrastination is 40. Since the score is highest in vigilant decision style, it can be stated that Science subject student teachers Predominate decision style is vigilance. This Implies that the subject Science subject student-teachers has a tendency to search carefully for information, to consider many alternatives, to consider information without bias, and to evaluate alternatives carefully before making a decision. When the subject's score in vigilant decision style is compared with the group's which is 60, it is observed that the subject's score is higher. This reveals that the subject has higher tendency to adopt vigilant style than the majority of the group. In hyper vigilant style the subject's score(40) is lower than the group(50). This shows that the subject has a lower tendency to adopt hyper vigilant style than the group. The subject to the defensive avoidance style, since the subject's to problems . with regard to the defensive avoidance style, since the subject's score(60) higher than the group's(50) it can be inferred that the group. The subject's score(30) in rationalization is less than of the group. Hence it can be stated that the subject has less tendency to avoid the reality of decisions. In buck-passing too, the subject's(20) is lower than the group's(40). So it is understood that the subject has a lower tendency than the group to leave the hard decisions to others. The score of the subject(40) in Procrastination style is found to be higher than the group's(30). This shows that the subject possesses a higher tendency to put off making decisions than group.

On analyzing the group data, it is observed that Science subject student-teachers has the highest score of 100 in vigilant style. This shows that the subject Science subject student-teachers is most vigilant in the group while making decisions. The lowest score is 40 that of the government college student-teachers. Hence it can be stated that government college student teachers has the lowest tendency to adopt vigilant style. Two subjects in the group have a lower score in vigilant style than the group mean. Probably with counselling and training i decision making these subjects may be helped to enhance vigilant decision making.

In hyper vigilant decision style, the subject government subject student teachers has highest score of 80. This implies that government. College student teachers has the highest tendency to make decisions impulsively and to look for quick and easy solutions. The Arts subject student teachers score of 30 is the lowest. From this it can be inferred that Arts subject student teachers has the lowest tendency in the group to adopt hyper vigilant decision style. Since the score of women(60) is higher than the more opportunities in decision making skills. Two groups have a higher score than the group implying that these subjects have a higher tendency to adopt hyper vigilante's.

In defensive avoidance style, the highest score is 80 that of the private college student teachers. This reveals that private college student teachers have the highest tendency to avoid having to make decisions. The subject kannada medium student teachers has the lowest score of 30 implying a lowest tendency to adopt defensive avoidance style. The comparison of the score of women and men reveals that the score of women(60) is higher than that of men(50) Hence, it can be inferred that women have a tendency to adopt defensive avoidance style more than men. Two subjects have scored higher than of the group implying higher tendency to adopt defensive avoidance style.

The Arts subject student teachers has the highest score of 70 in rationalization style. This reveals that Arts subject student teachers has the highest tendency in the group to avoid the reality of decisions. The subject govt. College student teachers has the lowest score of 20 which indicates that govt. College student teachers has the lowest tendency to avoid the reality of decisions. When the scores of the two genders are compared, it is found that the score of men (50) is higher than the of women (30). Hence it is understood that the males have a tendency to

adopt rationalization style more than women. One Arts subject student teachers has higher tendency to adopt rationalization style more than all the other subjects in the group.

With regard to Procrastination style, two subjects have the highest score of 40 each. From this it can be stated that these two subjects have the highest tendency put off making decisions. The lowest score in the group is 20 each of three subjects. Hence, it can be stated that these subjects have the lowest tendency to adopt procrastination style. The score of women and men is the same (30) and so it is understood that the two genders do not differ in adopting Procrastination decision style. Two subjects in the group have scored higher than the group's. So these two subjects have a tendency to adopt procrastination style than the group.

It is found that the Predominant decision style of women is vigilance while men have equal tendency to adopt vigilant, defensive avoidance, and rationalization styles. It is further understood that in this group women are better decision makers than men; probably the increased opportunities for women and their motivation to excel have helped in acquiring decision making skills. The increased competition and a diffusion of attitude that males are superior might have contributed to lack of motivation which in turn would have led to inadequate decision in men.

The score of the group in vigilance style is 60, in hyper vigilance 50, in defensive avoidance 50, in rationalization 40, in buck-passing 40 and in procrastination style is 30. It is observed that the Predominant decision style of the group is vigilance.

5. CONCLUSIONS

- 1) The Predominant decision making style of the Science subject student- teachers is vigilance.
- 2) The Predominant decision style of women is vigilance while that of men is vigilance, defensive avoidance and rationalization
- 3) The predominant decisions of the group is vigilance
- 4) There are individual differences in decision styles.

6. REFERENCE

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A STUDY ON COST OF CONSTRUCTION OF INDEPENDENT HOUSE IN HYDERABAD USING MACHINE LEARNING

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ABSTRACT

To this day, the study on house price in India using machine learning is extremely limited. The house prices tend to fluctuate from time to time in different metropolitan cities in India. Also, in cities like Gurgaon, Delhi; Bangalore, Mumbai, Hyderabad, etc., the trends have kept increasing day to day especially on Independent house. Many factors are also necessary to be considered while constructing an Independent House. So, in this paper an attempt was made to study and predict the house price in Hyderabad using various factors. This paper shows the usage of machine learning technique to predict the real estate price on a primary dataset which was collected by preparing and supplying a questionnaire to several people. A sample of 175 respondents were selected for this study. The findings of the study show that the model was not statistically significant in predicting accurate prices of the house. Also, a poor dataset could negatively affect the predictions.

Keywords: Hyderabad, Construction, House prices, EDA, Machine Learning.

INTRODUCTION

Along with other fundamental necessities like food, water, and many other things, a home is one of a person's most basic wants. As people's living standards rose throughout time, demand for houses increased quickly. While some people buy homes as investments and properties, the majority of people do so for refuge or to support their livelihood.

We are all aware of how India's metropolitan cities are setting the pace for real estate growth. An earlier saturation point in the real estate market caused it to suffer. Few individuals were eager to purchase new property during that time. But since then, times have changed. After first being negatively impacted by demonetization, the real estate sector is now preparing to contribute to the economy's growth pace. Here, the metropolitan cities are actively participating in urban growth. People are moving to metropolitan areas as they are growing quickly. Saying that the metropolitan cities are leading the charge of the real estate sector in India in this situation would not be overstating the case! When potential buyers or tenants lose interest in searching for residences in a certain market, real estate markets reach saturation. This results in a drop in overall sales and rentals, thus house owners and landlords must seek to lower prices, make improvements, or think of other ways to entice tenants and home purchasers to enter a particular housing market.

Every year, there is a growth in the demand for houses, which indirectly drives up house prices. The issue arises when there are many factors, such as location and property demand, that could affect the cost of a house. As a result, the majority of stakeholders, including buyers, developers, house builders, and the real estate industry, would want to know the precise characteristics or the accurate factors influencing the home price to assist investors in their decisions and to help housebuilders set the house price.

Real estate efficiency depends on accurate house price projection. As before, house prices were calculated using the purchasing and selling prices in a particular area. As a result, the house price prediction model is crucial for filling the knowledge gap and growing real estate efficiency.

A gated community's housing units offer a lot of amenities and features, but they are not custom-made. As a result, independent home constructions are more popular since they provide people the freedom to design their homes anyway they see fit. However, building a house has unique difficulties. It requires a lot of patience as well as accurate building estimations to prevent money from being misused. Homeowners frequently have no idea how much development will cost or are careless about it. As a result, a number of problems develop, ranging from rising construction costs to decreased building quality.

REVIEW OF LITERATURE

Prathamesh Kumkar, Ishan Madan, Ashutosh Kale (2018) on the Comparison of Ensemble Methods for Real Estate Appraisal, examined the effectiveness of four ensemble methods—Bagging, Random Forest, Gradient Boosting, and Extreme Gradient Boosting—in the analysis and evaluation of Mumbai real estate. The data source for this study was the property listings accessible on the real estate website 99acres. According to the investigation, of the ensemble models, the Extreme Gradient Boosting (XGBoost) model fared the best. The findings show that ensemble models are capable of providing accurate real estate price estimates.

Mansi Jain, Himani Rajput, Neha Garg (2019) on Prediction of House Pricing Using Machine Learning with Python, gave a general overview of how to anticipate house costs using various regression techniques with the use of python libraries. The suggested method took into account the more intricate factors that go into determining house prices and produced a more precise forecast. Additionally, it gives a quick overview of the several graphical and numerical methods that would be needed to estimate the cost of a house. This article explains the house price model's operation, how machine learning is applied, and the dataset that our proposed model uses.

P. Durganjali (2019) on a house resales price prediction using classification algorithms, performed the resale price prediction of house using different classifications algorithms like Linear regression, Decision Tree, K-Means and Random Forest. Various factors, including physical attributes, location, and economic circumstances, have an impact on the price of a house. Here, we use RMSE as the performance matrix for various datasets, apply these methods, and identify the most accurate model that accurately forecasts better outcomes.

Ayush Varma (2018) on house price prediction using machine learning and neural networks stated predicting housing prices with real factors is the main crux of our research project. Here, we strive to base our assessments on each fundamental factor taken into account when calculating the price. We employ a variety of regression methods in this pathway, and the findings we obtain are not just based on any one method; rather, they are a weighted average of the methods, which results in the results we obtain being as accurate as possible. Results showed that this strategy produces least error and greatest accuracy when compared to applying individual algorithms. Additionally, we suggest using Google Maps to access current local information for precise real-world assessments.

Palak Furia and Anand Khandare (2022) on the Real Estate Price Prediction Using Machine Learning Algorithms uses machine learning to predict house prices. Bangalore city suburban housing data is one heuristic data frequently employed in the examination of housing price deficits According to a recent investigation, the database's pricing are significantly influenced by location and size. Up to this point, simple algorithms like linear regression can get rid of errors by using both internal and local features. The objective is to address the issues associated with relapse, where the target variable is the value and the independent variable is the region.

Alisha Kuvalekar, Shivani Manchewar, Sidhika Mahadik, Shila Jawale (2020) on the House Price Prediction Using Machine Learning predict the house price. Predicting the market value of a real estate property is the paper's main goal. This approach aids in determining a

property's beginning price depending on geographic factors. Future costs will be estimated by dissecting historical market trends, price ranges, and upcoming technological improvements. In this study, a decision tree regressor will be used to forecast house values in Mumbai. Clients will benefit from being able to contribute funds to a bequest without going to a broker. The findings of this study demonstrated that the Decision Tree Regressor had an 89% accuracy rate.

CH. Raga Madhuri, G. Anuradha and M. Vani Pujitha(2022) on the House Price Prediction Using Regression Techniques: A Comparative Study - The purpose of the study is to anticipate the reasonable housing prices for those who do not own a home based on their financial resources and goals. The rumoured prices will be calculated by examining the previously mentioned goods, fare ranges, and development warnings. The study makes predictions using a variety of regression approaches, including multiple linear, ridge, LASSO, elastic net, gradient boosting, and ada boost regression. All of the aforementioned strategies have been used to estimate house prices on a data set in an effort to determine which is the most effective. The purpose of this essay is to assist the seller in accurately estimating the selling price of a home and to aid readers in determining the precise time frame for home acquisition. Physical conditions, concept, location, and other associated aspects that affect cost were also taken into account.

Ayush Kumar Tiwari, Aman Goyal, Akshita Sharma and Pragya Tewari(2022) on the House Price Prediction Using Machine Learning - A market value assumption for land property is presented in this study as its main objective. This technique uses topographical information to determine a property's starting price. By separating out current market models, price ranges, and new kinds of innovation, future costs will be normalised. This evaluation will calculate Mumbai house costs using a decision tree regressor. It will assist clients in adding properties to a domain without contacting a seller. The assessment's delayed outcome demonstrated that the Decision Tree Regressor provides an accuracy of 89%.

Mr. Piyush Chordia, Mr. Pratik Konde, Ms. Supriya Jadhav, Hrutik Pandhare and Prof. Shikha Pachouly(2022) on the Prediction Of House Price Using Machine Learning - This study analyses the subject of changing home prices as a classification problem and discusses machine learning strategies to forecast whether home prices will increase or decrease based on current data. This work uses a number of feature selection approaches, including variance influence factor, information value, principle component analysis, and data transformation techniques, including outlier and missing value treatment. Four factors—accuracy, precision, specificity, and sensitivity—are used to assess how well machine learning algorithms function. The two discrete values 0 and 1 are regarded as distinct classes in the work. We assume that the price of the house has increased if the class value is 1, and we assume that the price has decreased if the class value is 0.

G. Naga Satish, Ch. V. Raghavendran, M.D.Sugnana Rao, Ch.Srinivasulu(2019) on the House Price Prediction Using Machine Learning- This study uses machine learning algorithms as a research technique to create models for predicting house prices. We develop a housing cost prediction model in light of machine learning algorithm models like XGBoost, lasso regression, and neural systems on the basis of an examination of their order precision execution. At this stage, we advise employing a housing cost prediction model to help a home seller or a real estate agent get better information based on the value of the home. These analyses show that the lasso regression technique consistently outperforms alternative models in the implementation of housing cost prediction in terms of accuracy.

OBJECTIVES OF THE STUDY

- To determine the factors influencing the house price prediction in Hyderabad.
- To predict and analyse the house prices in Hyderabad.

NEED FOR THE STUDY

In this ever dynamic real estate world, it becomes difficult for people to understand the dynamics that goes into constructing their own house. With multiple factors ranging from the material's cost to the manpower that needs to be taken into account, the estimation of total cost for building a house becomes extremely challenging. This study aims to solve this problem.

METHODOLOGY AND DATA COLLECTION METHOD:

The major part of the study is based on primary data collected from a sample of 175 respondents. The primary data was collected from the respondents through a questionnaire. The questionnaire had been divided into two different sections to include two different cases:

- I. Construction of house after purchasing the land.
- II. Purchase of a constructed house.

Sampling: A sample is a selection of units from the entire group called population or a universe of people.

- **Sampling Size-** 175 respondents are selected for the purpose of the study.
- **Sampling Media-** The respondents are sent questionnaire through WhatsApp Messenger.

Exploratory Data Analysis and data visualisation was performed using python.

The model was divided into train and test in the ratio 70:30 and the multiple linear regression model was performed using machine learning.

RESEARCH GAP

House Price Prediction is important to drive Real Estate efficiency. Not many studies of real estate are done in India, so an attempt was made to predict the House price in Hyderabad. However, certain factors are necessary to be considered while doing an analysis on the house price prediction. Those factors will likely be considered in this study.

SCOPE OF THE STUDY

The study covers the cost of the house constructed on their own land and the cost of a purchased and constructed house in Hyderabad.

LIMITATIONS OF THE STUDY

- The calculation of house prices are done without the necessary prediction about future market trends and price increase therefore, the goal of the project is to predict the efficient house pricing for real estate customers with respect to their budgets and priorities.
- The quality of the readymade house differs from the actually constructed building. The quality of materials and the quality of construction of a readymade house is different.

DATA ANALYSIS AND INTERPRETATION

The following codes will be used for execution to work on a study on cost of construction of Independent House in Hyderabad using machine learning techniques.

The dataset was divided into two parts to make the analysis more clear.

Since python does not accept symbols for numeric data, the average function was used in excel to find the mid value of the ranges of all the dependent and independent variables and so their datatype remained numeric.

The multiple linear regression model is built and train test split is done. We can also see which variables highly impact the price in this model. In the end we get the Accuracy value which determines if the model building is statistically significant.

Equation for multiple linear regression:

$$\hat{Y} = b_0 + b_1X_1 + b_2X_2 + \dots + b_pX_p$$

#importing libraries

```
import os
import pandas as pd
import numpy as np
```

#changing the working directory

```
os.chdir("Downloads")
```

#reading the excel dataset

```
os.chdir("Downloads")
```

```
df=pd.read_excel("C:\\Users\\heera\\Desktop\\Construction of house after purchasing the land.xlsx")
```

#getting the top 5 rows of the data

```
df.head()
```

	Name	Age	source	location	category	When did you purchase your house?	price	cost of land area	area(square ft.)	cost of civil work per sq. ft.	flooring cost	[Electricals cost]	[Plumbing cost]	[Sanitary cost]	[Painting cost]
0	Prv	51-60	Family/Friends	Marredpally	NaN	1-3 years	20000000	7500000	2500	2250	700	200000	200000	200000	20
1	Arun	21-30	Real Estate advertisement	Secunderabad	GHMC	3-5 years	20000000	7500000	2000	1250	500	1000000	900000	900000	100
2	Abc	51-60	Family/Friends	Marredpally	GHMC	1-3 years	7500000	3750000	2500	1750	300	200000	200000	200000	20
3	Vijayalakshmi	41-50	Family/Friends	Sainikpuri, Hyd, India	GHMC	more than 5 years	7500000	3750000	2000	1250	500	300000	500000	500000	50
4	Sailaja	41-50	Real Estate advertisement	Rampally X Roads	Non-GHMC	more than 5 years	5000000	3750000	2000	1750	300	300000	200000	300000	50

#getting the bottom 5 rows of the data

```
df.tail()
```

	Name	Age	source	location	category	When did you purchase your house?	price	cost of land area	area(square ft.)	cost of civil work per sq. ft.	flooring cost	[Electricals cost]	[Plumbing cost]	[Sanitary cost]	[Painting cost]	[Overhead cost]
66	Pari	21-30	Family/Friends	Trimulgherry	Non-GHMC	more than 5 years	5000000	3750000	2000	1000	500	200000	200000	200000		
67	Neelima	41-50	Family/Friends	AS Rao Nagar	GHMC	more than 5 years	20000000	3750000	2500	1750	500	200000	200000	200000		
68	Unnati	NaN	Brokers	Secunderabad	Non-GHMC	more than 5 years	40000000	3750000	4500	1750	500	900000	700000	900000		
69	Zara	21-30	Brokers	Durgavihar Colony, Secunderabad	Non-GHMC	more than 5 years	7500000	3750000	3500	1250	300	500000	500000	500000		
70	Anju	31-40	Brokers	Trimulgherry	GHMC	3-5 years	20000000	7500000	2500	2250	700	900000	700000	900000		

#finding the datatypes of the data

```
df.dtypes
```

```
Name      object
Age        object
source     object
location   object
category   object
When did you purchase your house?  object
price      int64
cost of land area      int64
area(square ft.)      int64
cost of civil work per sq. ft.      int64
flooring cost      int64
[Electricals cost]  int64
[Plumbing cost]    int64
[Sanitary cost]    int64
[Painting cost]    int64
[Overhead cost]    int64
dtype: object
```

#finding the missing values in the data

```
df.isna().sum()
```

```
Name      2
Age        2
source     0
location   1
category   3
When did you purchase your house?  0
price      0
cost of land area      0
area(square ft.)      0
cost of civil work per sq. ft.      0
flooring cost      0
[Electricals cost]    0
[Plumbing cost]       0
[Sanitary cost]       0
[Painting cost]       0
[Overhead cost]       0
dtype: int64
```

#finding the dimensions of the data

```
df.shape
(71, 16)
```

#finding the number of unique values in the data

```
for column in df.columns:
    print(f"{column}: Number of unique values {df[column].nunique()}")
    print("=====")
```

```
Name: Number of unique values 69
=====
Age: Number of unique values 5
=====
source : Number of unique values 5
=====
location: Number of unique values 45
=====
category : Number of unique values 2
=====
When did you purchase your house?: Number of unique values 4
=====
price: Number of unique values 5
=====
cost of land area: Number of unique values 4
=====
area(square ft.) : Number of unique values 5
```

```
area(square ft.) : Number of unique values 5
=====
cost of civil work per sq. ft. : Number of unique values 5
=====
flooring cost : Number of unique values 4
=====
[Electricals cost]: Number of unique values 6
=====
[Plumbing cost]: Number of unique values 5
=====
[Sanitary cost]: Number of unique values 5
=====
[Painting cost]: Number of unique values 6
=====
[Overhead cost]: Number of unique values 6
=====
```

#dropping the unwanted variables

```
df.drop("Name",axis=1,inplace=True)
```

#finding the uniques counts

```

object_col = []
for column in df.columns:
    if df[column].dtype == object and len(df[column].unique()) :
        object_col.append(column)
        print(f"{column} : {df[column].unique()}")
        print(df[column].value_counts())
        print("=====")

```

Age : ['51-60' '21-30' '41-50' '31-40' nan 'Above 60']

21-30	36
41-50	20
51-60	6
31-40	6
Above 60	1

Name: Age, dtype: int64

=====

source : ['Family/Friends' 'Real Estate advertisement' 'Brokers' 'Others' 'Internet']

Family/Friends	41
Brokers	18
Real Estate advertisement	7

Real Estate advertisement	7
Internet	3
Others	2

Name: source , dtype: int64

=====

location : ['Marredpally' 'Secunderabad' 'Sainikpuri, Hyd, India' 'Rampally X Roads' 'Trimulgherry' 'AS Rao Nagar' 'Durgavihar Colony,Secunderabad' 'Trimulgherry' 'Malkajgiri' 'Dammaiguda' 'Kakatiya nagar neredmet near rohini residency' nan 'nallagandla' 'Kapra' 'Saket township' 'Sainikpuri' 'Alwal' 'ecil' 'Namalagundu,secunderabad' 'Dairy farm road Trimulgreey secbad' 'Uppal' 'Hyderabad' 'Badangpet' 'Neredmet' 'trimulgheery' 'Medak 502110' 'Damaiguda' 'Marredpally' 'Kompally' 'Picket' 'Bhongir' 'Begum bazaar' 'Hyderabad' 'Bahadurpura' 'Jahanuma' 'Habsiguda' 'Secunderabad' 'Kukatpally' 'Banjara hills' 'Habsiguda' 'East Marredpally' 'West Marredpally' 'Himayat nagar' 'Sindhi colony' 'Begumpet' 'Tirumulgiri']

Marredpally	5
Secunderabad	5
Secunderabad	3
Uppal	3
Alwal	2
Kompally	2
AS Rao Nagar	2
Hyderabad	2
Durgavihar Colony,Secunderabad	2
Sainikpuri, Hyd, India	2
Trimulgherry	2
Dammaiguda	2
Marredpally	2
Rampally X Roads	2
Kapra	2
Sainikpuri	2
Trimulgherry	2
Habsiguda	1
Hyderabad	1
Kukatpally	1
Badangpet	1
Neredmet	1
Kakatiya nagar neredmet near rohini residency	1
ecil	1
nallagandla	1
Himayat nagar	1
Malkajgiri	1
Dairy farm road Trimulgreey secbad	1
Namalagundu,secunderabad	1
East Marredpally	1
Medak 502110	1


```

Medak 502110      1
Begum bazaar      1
Sindhi colony     1
Picket            1
Saket township    1
Bhongir           1
Habsiguda         1
Bahadurpura       1
Tirumulgiri       1
Damaiguda         1
West Marredpally  1
Begumpet          1
trimulgheery      1
Banjara hills     1
Jahanuma          1
Name: location, dtype: int64
=====
category : [nan 'GHMC' 'Non- GHMC']
GHMC      44
Non- GHMC  24
Name: category , dtype: int64
=====
When did you purchase your house? : ['1-3 years' '3-5 years' 'more than 5 years' 'less than a year']
more than 5 years  43
1-3 years         13
3-5 years         13
less than a year   2
Name: When did you purchase your house?, dtype: int64
=====

```

#changing the datatype to numeric

```

from sklearn.preprocessing import LabelEncoder
for column in df.columns:
    if df[column].dtype == np.int64:
        continue
    df[column] = LabelEncoder().fit_transform(df[column])

```

```
df.head()
```

	Age	source	location	category	When did you purchase your house?	price	cost of land area	area(square ft.)	cost of civil work per sq. ft.	flooring cost	[Electricals cost]	[Plumbing cost]	[Sanitary cost]	[Painting cost]	[Overhead cost]
0	3	1	25	2	0	2000000	750000	2500	2250	700	200000	200000	200000	200000	200000
1	0	4	34	0	1	2000000	750000	2000	1250	500	1000000	900000	900000	1000000	1000000
2	3	1	25	0	0	7500000	3750000	2500	1750	300	200000	200000	200000	200000	200000
3	2	1	32	0	3	7500000	3750000	2000	1250	500	300000	500000	500000	500000	200000
4	2	4	30	1	3	5000000	3750000	2000	1750	300	300000	200000	300000	500000	700000

#handling the missing values

```
from sklearn.impute import SimpleImputer
na= SimpleImputer(strategy="mean")
na.fit(df)
data=pd.DataFrame(na.transform(df),columns=df.columns)
```

#checking the missing values

```
data.isna().sum()
```

```
Age                                0
source                            0
location                          0
category                          0
When did you purchase your house? 0
price                             0
cost of land area                  0
area(square ft.)                   0
cost of civil work per sq. ft.     0
flooring cost                      0
[Electricals cost]                 0
[Plumbing cost]                   0
[Sanitary cost]                   0
[Painting cost]                   0
[Overhead cost]                   0
dtype: int64
```

```
data.head()
```

	Age	source	location	category	When did you purchase your house?	price	cost of land area	area(square ft.)	cost of civil work per sq. ft.	flooring cost	[Electricals cost]	[Plumbing cost]	[Sanitary cost]	[Painting cost]	[Overhead cost]
0	3.0	1.0	25.0	2.0	0.0	20000000.0	7500000.0	2500.0	2250.0	700.0	200000.0	200000.0	200000.0	200000.0	200000.0
1	0.0	4.0	34.0	0.0	1.0	20000000.0	7500000.0	2000.0	1250.0	500.0	1000000.0	900000.0	900000.0	1000000.0	1000000.0
2	3.0	1.0	25.0	0.0	0.0	7500000.0	3750000.0	2500.0	1750.0	300.0	200000.0	200000.0	200000.0	200000.0	200000.0
3	2.0	1.0	32.0	0.0	3.0	7500000.0	3750000.0	2000.0	1250.0	500.0	300000.0	500000.0	500000.0	500000.0	200000.0
4	2.0	4.0	30.0	1.0	3.0	5000000.0	3750000.0	2000.0	1750.0	300.0	300000.0	200000.0	300000.0	500000.0	700000.0

#checking the correlation values

data.corr()

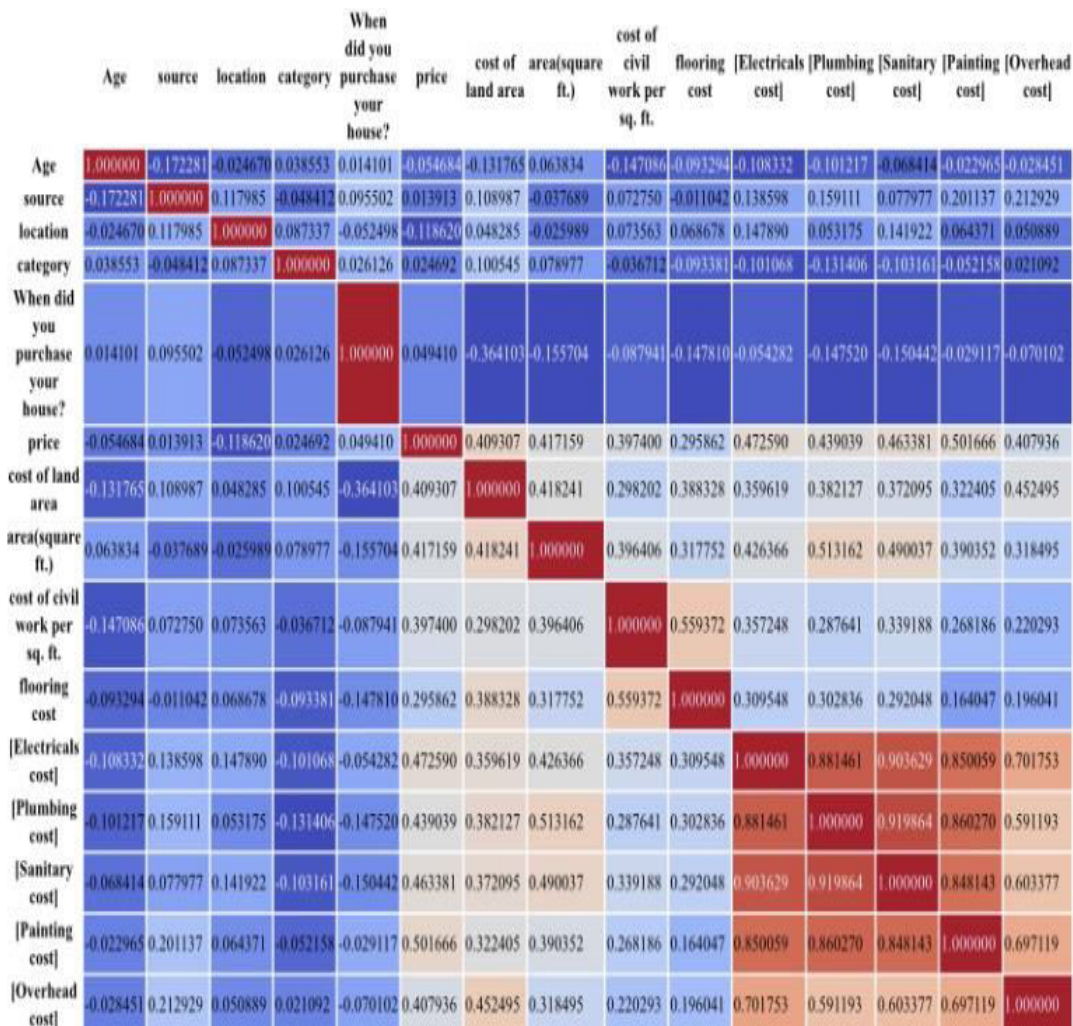
Age	source	location	category	When did you purchase your house?	price	cost of land area	area(square ft.)	cost of civil work per sq. ft.	flooring cost	[Electricals cost]	[Plumbing cost]	[Sanitary cost]	[Painting cost]	[Overhead cost]
30000	-0.172281	-0.024670	0.038553	0.014101	-0.054684	-0.131765	0.063834	-0.147086	-0.093294	-0.108332	-0.101217	-0.068414	-0.022965	-0.028451
72281	1.000000	0.117985	-0.048412	0.095502	0.013913	0.108987	-0.037689	0.072750	-0.011042	0.138598	0.159111	0.077977	0.201137	0.212929
24670	0.117985	1.000000	0.087337	-0.052498	-0.118620	0.048285	-0.025989	0.073563	0.068678	0.147890	0.053175	0.141922	0.064371	0.050889
38553	-0.048412	0.087337	1.000000	0.026126	0.024692	0.100545	0.078977	-0.036712	-0.093381	-0.101068	-0.131406	-0.103161	-0.052158	0.021092
14101	0.095502	-0.052498	0.026126	1.000000	0.049410	-0.364103	-0.155704	-0.087941	-0.147810	-0.054282	-0.147520	-0.150442	-0.029117	-0.070102
54684	0.013913	-0.118620	0.024692	0.049410	1.000000	0.409307	0.417159	0.397400	0.295862	0.472590	0.439039	0.463381	0.501666	0.407936
31765	0.108987	0.048285	0.100545	-0.364103	0.409307	1.000000	0.418241	0.298202	0.388328	0.359619	0.382127	0.372095	0.322405	0.452495
53834	-0.037689	-0.025989	0.078977	-0.155704	0.417159	0.418241	1.000000	0.396406	0.317752	0.426366	0.513162	0.490037	0.390352	0.318495
47086	0.072750	0.073563	-0.036712	-0.087941	0.397400	0.298202	0.396406	1.000000	0.559372	0.357248	0.287641	0.339188	0.268186	0.220293
33294	-0.011042	0.068678	-0.093381	-0.147810	0.295862	0.388328	0.317752	0.559372	1.000000	0.309548	0.302836	0.292048	0.164047	0.196041
38332	0.138598	0.147890	-0.101068	-0.054282	0.472590	0.359619	0.426366	0.357248	0.309548	1.000000	0.881461	0.903629	0.850059	0.701753
31217	0.159111	0.053175	-0.131406	-0.147520	0.439039	0.382127	0.513162	0.287641	0.302836	0.881461	1.000000	0.919864	0.860270	0.591193

#checking the correlation between each variable

	Age	source	location	category	When did you purchase your house?	price	cost of land area	area(square ft.)	cost of civil work per sq. ft.	flooring cost	[Electricals cost]	[Plumbing cost]	[Sanitary cost]	[Painting cost]	[Overhead cost]
Age	1.000000	-0.172281	-0.024670	0.038553	0.014101	-0.054684	-0.131765	0.063834	-0.147086	-0.093294	-0.108332	-0.101217	-0.068414	-0.022965	-0.028451
source	-0.172281	1.000000	0.117985	-0.048412	0.095502	0.013913	0.108987	-0.037689	0.072750	-0.011042	0.138598	0.159111	0.077977	0.201137	0.212929
location	-0.024670	0.117985	1.000000	0.087337	-0.052498	-0.118620	0.048285	-0.025989	0.073563	0.068678	0.147890	0.053175	0.141922	0.064371	0.050889
category	0.038553	-0.048412	0.087337	1.000000	0.026126	0.024692	0.100545	0.078977	-0.036712	-0.093381	-0.101068	-0.131406	-0.103161	-0.052158	0.021092
When did you purchase your house?	0.014101	0.095502	-0.052498	0.026126	1.000000	0.049410	-0.364103	-0.155704	-0.087941	-0.147810	-0.054282	-0.147520	-0.150442	-0.029117	-0.070102
price	-0.054684	0.013913	-0.118620	0.024692	0.049410	1.000000	0.409307	0.417159	0.397400	0.295862	0.472590	0.439039	0.463381	0.501666	0.407936
cost of land area	-0.131765	0.108987	0.048285	0.100545	-0.364103	0.409307	1.000000	0.418241	0.298202	0.388328	0.359619	0.382127	0.372095	0.322405	0.452495
area(square ft.)	0.063834	-0.037689	-0.025989	0.078977	-0.155704	0.417159	0.418241	1.000000	0.396406	0.317752	0.426366	0.513162	0.490037	0.390352	0.318495
cost of civil work per sq. ft.	-0.147086	0.072750	0.073563	-0.036712	-0.087941	0.397400	0.298202	0.396406	1.000000	0.559372	0.357248	0.287641	0.339188	0.268186	0.220293
flooring cost	-0.093294	-0.011042	0.068678	-0.093381	-0.147810	0.295862	0.388328	0.317752	0.559372	1.000000	0.309548	0.302836	0.292048	0.164047	0.196041
[Electricals cost]	-0.108332	0.138598	0.147890	-0.101068	-0.054282	0.472590	0.359619	0.426366	0.357248	0.309548	1.000000	0.881461	0.903629	0.850059	0.701753
[Plumbing cost]	-0.101217	0.159111	0.053175	-0.131406	-0.147520	0.439039	0.382127	0.513162	0.287641	0.302836	0.881461	1.000000	0.919864	0.860270	0.591193
[Sanitary cost]	-0.068414	0.077977	0.141922	-0.103161	-0.150442	0.463381	0.372095	0.490037	0.339188	0.292048	0.903629	0.919864	1.000000	0.848143	0.603377
[Painting cost]	-0.022965	0.201137	0.064371	-0.052158	-0.029117	0.501666	0.322405	0.390352	0.268186	0.164047	0.850059	0.860270	0.848143	1.000000	0.697119
[Overhead cost]	-0.028451	0.212929	0.050889	0.021092	-0.070102	0.407936	0.452495	0.318495	0.220293	0.196041	0.701753	0.591193	0.603377	0.697119	1.000000

#corrgram

```
rs = np.random.RandomState(0)
corr = data.corr()
corr.style.background_gradient(cmap='coolwarm')
```

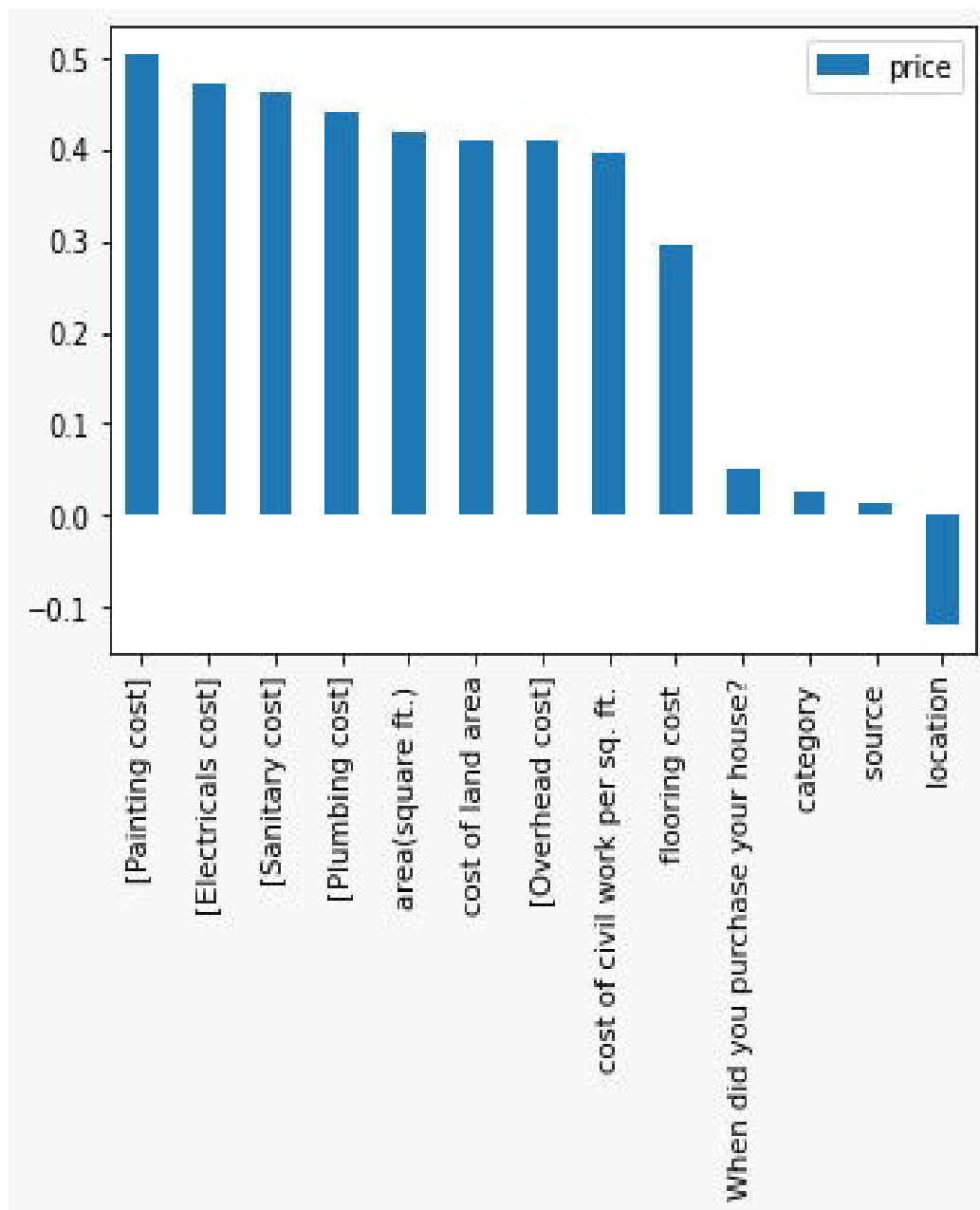


As we can see in the above three outputs, the correlation is not very high. It shows that the variables are not highly correlated.

Although if we observe, a few variables have a closer correlation as the value is closer to 1. However, looking at the overall outcome, we can say that the correlation is not highly satisfying.

#data visualisations

```
correlation.plot.bar()
```



```
import matplotlib.pyplot as plt  
plt.figure()  
data.hist(figsize=(20,20))  
plt.show()
```

<Figure size 432x288 with 0 Axes>



#splitting the data into train and test

```
#TRAIN TEST SPLIT
from sklearn.model_selection import train_test_split
X = data.drop('price',axis=1)
y = data['price']
```

```
X_train, X_test, y_train, y_test = train_test_split(X,y,test_size=0.25,random_state=123)
```

#Import required libraries to build a linear regression model

```
from sklearn.linear_model import LinearRegression
from sklearn.metrics import r2_score
linreg=LinearRegression()
linreg.fit(X_train,y_train)
```

```
LinearRegression()
```

```
y_pred=linreg.predict(X_test)
y_pred
```

```
array([24251335.93258798, 12491636.25497365, 8420198.82738134,
       7359519.09221091, 18785381.49860217, 16960431.24357005,
       23310778.63286512, 11630676.1206557 , 14815249.56207429,
       18381053.2266253 , 8552961.18339125, 24662125.57217037,
       30576039.90364188, 38437760.58396673, 14093957.3592489 ,
       15098128.72405639, 8279101.42366965, 13688132.74858864])
```

#checking the accuracy of the model

```
Accuracy=r2_score(y_test,y_pred)*100
print(" Accuracy of the model is %.2f" %Accuracy)
```

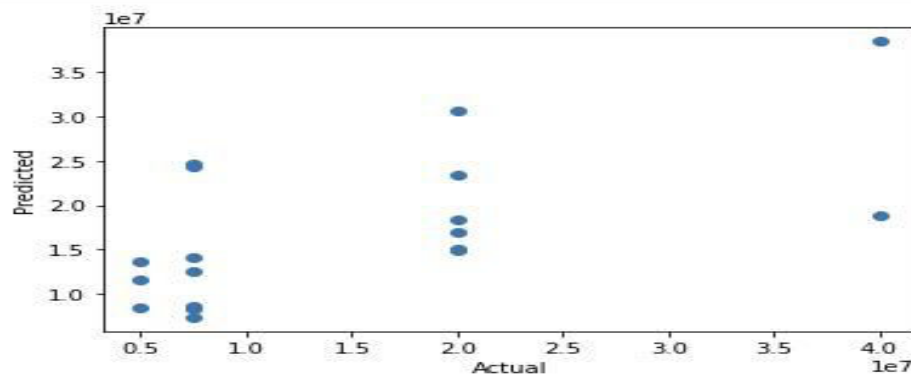
```
Accuracy of the model is 32.43
```

As we can see, the accuracy of the model is 32.43 which is very low.

This means that the model building for this data is not statistically significant.

#scatter plot for actual and predicted value

```
plt.scatter(y_test,y_pred);
plt.xlabel('Actual');
plt.ylabel('Predicted');
```



#checking the difference between actual and the predicted value.

```
pred_df=pd.DataFrame({'Actual Value':y_test,'Predicted Value':y_pred,'Difference':y_test-y_pred})
pred_df
```

	Actual Value	Predicted Value	Difference
8	7500000.0	2.425134e+07	-1.675134e+07
45	7500000.0	1.249164e+07	-4.991636e+06
44	5000000.0	8.420199e+06	-3.420199e+06
37	7500000.0	7.359519e+06	1.404809e+05
40	40000000.0	1.878538e+07	2.121462e+07
31	20000000.0	1.696043e+07	3.039569e+06
9	20000000.0	2.331078e+07	-3.310779e+06
29	5000000.0	1.163068e+07	-6.630676e+06
43	20000000.0	1.481525e+07	5.184750e+06
1	20000000.0	1.838105e+07	1.618947e+06
63	7500000.0	8.552961e+06	-1.052961e+06
69	7500000.0	2.466213e+07	-1.716213e+07
23	20000000.0	3.057604e+07	-1.057604e+07
48	40000000.0	3.843776e+07	1.562239e+06
64	7500000.0	1.409396e+07	-6.593957e+06
24	20000000.0	1.509813e+07	4.901871e+06
62	7500000.0	8.279101e+06	-7.791014e+05
65	5000000.0	1.368813e+07	-8.688133e+06

STEP BY STEP REGRESSION USING ORDINARY LEAST SQUARE (OLS) MODEL AND BACKWARD ELIMINATION TECHNIQUE

Equation for ordinary least square method:

The diagram shows the linear regression equation $Y_i = \beta_0 + \beta_1 X_i + \epsilon_i$. Labels with arrows point to each term: Y_i is the 'Dependent Variable', β_0 is the 'Population Y intercept', β_1 is the 'Population Slope Coefficient', X_i is the 'Independent Variable', and ϵ_i is the 'Random Error term'. A bracket under $\beta_0 + \beta_1 X_i$ is labeled 'Linear component', and a bracket under ϵ_i is labeled 'Random Error component'.

#importing the required libraries

```
from sklearn.preprocessing import PolynomialFeatures
import random
from sklearn.metrics import mean_squared_error, mean_absolute_error
```

#backward elimination technique

```
def DoBackwardElimination(the_regressor, X, y, minP2eliminate):
    assert np.shape(X)[0] == np.shape(y)[0], 'length of X and y do not match'
    assert minP2eliminate > 0, 'Minimum P value to eliminate cannot be zero or negative'

    original_list = list(range(0, np.shape(the_regressor.pvalues)[0]))

    max_p = 10          # Initializing with random value of maximum P value
    i = 0
    r2adjusted = []     # Will store R Square adjusted value for each loop
    r2 = []             # Will store R Square value for each loop
    list_of_originallist = [] # Will store modified index of X at each loop
    classifiers_list = [] # fitted classifiers at each loop

    while max_p >= minP2eliminate:
        p_values = list(the_regressor.pvalues)
        r2adjusted.append(the_regressor.rsquared_adj)
        r2.append(the_regressor.rsquared)
        list_of_originallist.append(original_list)

        max_p = max(p_values)
        max_p_idx = p_values.index(max_p)

        if max_p_idx == 0:
            temp_p = set(p_values)

            # removing the largest element from temp list
            temp_p.remove(max(temp_p))

            max_p = max(temp_p)
            max_p_idx = p_values.index(max_p)

            print('Index value 0 found!! Next index value is {}'.format(max_p_idx))

        if max_p < minP2eliminate:
            print('Max P value found less than 0.1 with 0 index ...Loop Ends!!')
            break

    if max_p < minP2eliminate:
```

```

        if max_p < minP2eliminate:
            print('Max P value found less than 0.1 with 0 index ...Loop Ends!!')
            break
    if max_p < minP2eliminate:
        print('Max P value found less than 0.1 without 0 index...Loop Ends!!')
        break
    val_at_idx = original_list[max_p_idx]
    idx_in_org_list = original_list.index(val_at_idx)
    original_list.remove(val_at_idx)
    print('Popped column index out of original array is {} with P-Value {}'.format(val_at_idx, np.round(np.array(p_values)[max_p_idx], decimals=4)))
    X_new = X[:, original_list]
    the_regressor = smf.OLS(endog = y, exog = X_new).fit()
    classifiers_list.append(the_regressor)
    print('-----')
return classifiers_list, r2, r2adjusted, list_of_originaillist

```

```

from sklearn.preprocessing import MinMaxScaler
mscalar = MinMaxScaler()
X_minmax_scaled = mscalar.fit_transform(X)

X_minmax_scaled = np.append(arr = np.ones((X_minmax_scaled.shape[0], 1)).astype(int), values=X_minmax_scaled, axis=1)

```

```

X_lst = list(range(0, X.shape[1]))
X_opt = X_minmax_scaled[:,X_lst]
flag = 2

```

```

idx_to_pop = 5
if flag == 1:
    X_lst.pop(element_to_pop)
    flag = 99
X_opt = X_minmax_scaled[:,X_lst]

```

#splitting the data into train and test

```

X_opt = X_minmax_scaled[:,X_lst]

X_train, X_test, y_train, y_test = train_test_split(X_opt, y, test_size=0.25, random_state=22)

```

#OLS method

```

# Fitting the regressor
regressor_SLR_OLS = sm.OLS(endog = y_train, exog = X_train).fit()

# Looking at the summary of regressor
print(regressor_SLR_OLS.summary())

```


#result obtained using ols

OLS Regression Results						
Dep. Variable:	price		R-squared:	0.532		
Model:	OLS		Adj. R-squared:	0.360		
Method:	Least Squares		F-statistic:	3.087		
Date:	Tue, 27 Sep 2022		Prob (F-statistic):	0.00289		
Time:	18:12:13		Log-Likelihood:	-918.76		
No. Observations:	53		AIC:	1868.		
Df Residuals:	38		BIC:	1897.		
Df Model:	14					
Covariance Type:	nonrobust					
	coef	std err	t	P> t	[0.025	0.975]
const	5.561e+06	6.14e+06	0.906	0.370	-6.86e+06	1.8e+07
x1	9.589e+05	4.6e+06	0.208	0.836	-8.36e+06	1.03e+07
x2	-4.246e+06	5.6e+06	-0.758	0.453	-1.56e+07	7.09e+06
x3	-2.971e+06	5.14e+06	-0.578	0.567	-1.34e+07	7.43e+06
x4	-5.436e+06	5e+06	-1.086	0.284	-1.56e+07	4.7e+06
x5	-6.198e+05	5.56e+06	-0.111	0.912	-1.19e+07	1.06e+07
x6	5.867e+06	4.02e+06	1.461	0.152	-2.26e+06	1.4e+07
x7	1.155e+07	6.72e+06	1.720	0.094	-2.04e+06	2.52e+07
x8	9.486e+06	6.5e+06	1.458	0.153	-3.68e+06	2.27e+07
x9	7.954e+06	5.72e+06	1.391	0.172	-3.62e+06	1.95e+07
x10	1.119e+06	5.02e+06	0.223	0.825	-9.05e+06	1.13e+07
x11	7.089e+06	1.31e+07	0.542	0.591	-1.94e+07	3.35e+07
x12	-1.438e+07	1.5e+07	-0.962	0.342	-4.46e+07	1.59e+07
x13	3.848e+06	1.51e+07	0.255	0.800	-2.67e+07	3.44e+07
x14	1.604e+07	1.23e+07	1.304	0.200	-8.86e+06	4.09e+07
Omnibus:	3.107	Durbin-Watson:	1.939			
Prob(Omnibus):	0.211	Jarque-Bera (JB):	2.985			
Skew:	0.552	Prob(JB):	0.225			
Kurtosis:	2.633	Cond. No.	26.6			

Notes:

[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

As we can see, the value of Adjusted R square is 0.36 which is nearly significant. So, we can say that this model is nearly fit for this dataset.

#calculating the errors

```
def Calculate_Error(original_values, predicted_values):
    assert len(original_values) == len(predicted_values), 'Both list should have same length'
    temp = 0
    error = 0
    n = len(original_values)
    for o, p in zip(original_values, predicted_values):
        temp = temp + ((o-p)**2)

    temp = temp/n
    error = np.sqrt(temp)
    return error
```

#obtaining the Mean Squared Error (MSE) for train and test data

```
train_data_error = Calculate_Error(original_values=y_train, predicted_values=y_pred_train)
test_data_error = Calculate_Error(original_values=y_test, predicted_values=y_pred_test)

print('MSE for training data is {}'.format(np.round(train_data_error, 4)))
print('MSE for testing data is {}'.format(np.round(test_data_error, 4)))

MSE for training data is 8175562.6815
MSE for testing data is 10433329.3493
```

FINDINGS

In this study, we performed a multiple linear regression model as there was one dependent variable; price and many independent variables like civil work cost, flooring cost, electrical cost, sanitary cost, overhead cost, painting cost, plumbing cost and also the land area and construction area. The whole data was split into train and test to predict the price. The objective of this study was also to determine the factors influencing the house price.

The price of the house was greatly influenced by various factors involved in the construction of the house.

As the construction area of the house increased, the price of the house also increased. There were also cases where the price of two houses were same even when the construction area of them were different, this was due to the difference in the interior costing of the house.

The performance of the multiple regression model was not statistically significant in predicting accurate prices of the house because in this model the accuracy level was very low. Also the correlation between the variables were not very satisfactory as the correlation values were very low. But the performance of Ordinary Least Square Method was nearly significant as the Adjusted R square value was 0.36 which is close to determine the accurate house price. So we can say that this model is fit for the dataset.

CONCLUSIONS

In this study, we have done an exploratory data analysis and data visualisation to understand the data and find out the statistics of data. We have seen that there is a high variability in data which is acceptable. The outliers are included in the data. We have done descriptive statistics using various functions. The correlation between variables was found using corrgram.

This data included all the needed information to find out more about the factors influencing the housing price and make predictions and draw conclusions from it. Through these predictions we also learnt how to predict house price.

A multiple regression was created to predict the prices. The model was split into train and test to build a linear regression model. The accuracy of the data was also checked.

The accuracy of the data was 32.43 which is very less. This shows that the model is not a good fit for this data. Also the correlation between each variables was less which means they are not highly correlated.

Then, a Ordinary Least Square regression was created to check the reliability of the data. The model was split into train and test to build a regression model. The mean squared error was also checked.

The Adjusted R square value of the model was 0.36 which is nearly significant for the data. This shows that the model is nearly fit for this dataset. This means that only 36% is explained in this

model and 64% is not explained by this model. Further, research can be carried on in the future to explain the unexplained, by taking new variables or build a new questionnaire.

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A STUDY ON PHYSIOLOGICAL DIFFERENCES BETWEEN TRAINED AND UNTRAINED UNDER-GRADUATE STUDENTS OF ALIGARH MUSLIM UNIVERSITY

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ABSTRACT

Background Blood pressure, heart rate, and vital capacity are cardinal vital signs guiding acute and long-term clinical decision-making. Given its importance in directing care, it is essential to measure these parameters accurately and consistently. The heart's optimal functioning is essential for athletic and daily living performances. Physical activity is a necessary and sufficient condition to maintain physiological parameters and make them function optimally. Training or any kind of physical activity differs trained persons from untrained individuals. This paper investigated Physiological Differences between Trained and Untrained Under-Graduate Students of Aligarh Muslim University.

Methods: Forty (40) Trained Under-Graduate Students ranging in age from 21 to 24 years old were selected from the Department of Physical Education and Various Sports Clubs of AMU, Aligarh and Forty (40) Untrained Under-Graduate Students ranging in age from 21 to 24 years old were selected from Faculty of Social Science AMU, Aligarh. Evaluation of blood pressure, heart rate, and vital capacity was done in both trained as well as untrained undergraduate students by using appropriate equipment.

Results: The analysis of data for physiological variables like Resting Heart Rate and Vital capacity revealed that there was a significant difference ($Z > 1.96$) and resting Blood Pressure showed that there was no significant difference between trained and Un-trained under-Graduate students ($Z < 1.96$)

Conclusion: It can be concluded that there is a significant difference in physiological variables of trained and untrained undergraduate students of Aligarh Muslim University, Aligarh India.

INTRODUCTION

Physical performance variables, structural factors, and psychological factors are just a few of the many components that make up the complex phenomena of performance. Performance is influenced by physiological parameters such as blood pressure, vital capacity, pulse rate, lung capacity, etc. due to the fact that various activities place varying demands on the body's neurological, respiratory, circulatory, metabolic, and temperature systems. Studies show that physiological factors have an impact on people's ability to exercise, train, and perform. Human physiology is the study of the mechanical, physical, and biochemical processes that occur in healthy individuals, their organs, and the cells that make them up (Thakur, 2016.. The foundation for successful athletic endeavours is cardiovascular efficiency, one of many physiological variables. parameters, cardiovascular efficiency forms the basis to undertake sports efforts successfully.

Every sport requires specialized training. Even at rest, heart rate is significantly influenced by training; for instance, in highly skilled athletes of either sex, resting heart rates may be as low as or lower than 40 beats per minute. In comparison, untrained, healthy people may have resting heart rates as high as 90 beats per minute. The trained person often has a low resting heart rate. It should be noted that an effective circulatory system is indicated by a relatively modest heart rate and a comparatively big stroke volume. The vital capacity and frequency of resting breathing, together with other physiological parameters, are crucial indicators of human

function. A person's vital capacity can be measured by a Spiro meter which can be a wet or regular Spiro meter. The normal adult has a vital capacity between 3 and 5 litres whereas participation in sports activity subsequently raises the vital capacity. The individual dimensions are, however, not exclusively decrease for the size of the lung volumes. The lung volumes are about 10 percent smaller in women than in men of the same age and size. Training during adolescence will eventually increase the vital capacity and total lung capacity. After the age of about 30, the residual volume and functional residual capacity increase and the vital capacity usually decrease, (Astrand and Rodahl, 1986). As a result, it is clear that athletes' performance is understood to be significantly influenced by their size, shape, and form. Players' performances are influenced by a variety of circumstances. Basic cricket skills like batting, bowling, throwing, and catching call for a particular sort of physique with particular proportions and conditional abilities, dependent on physiological factors like vital capacity, heart rate, blood pressure, and frequency of resting breathing.

MATERIAL AND METHODS

PARTICIPANTS

40 Trained Under-Graduate Students were selected from Department of Physical Education and Various Sports Clubs of AMU and 40 Untrained Under-Graduate Students were selected from Faculty of Social Science AMU, Aligarh.

Selected Variables

The physiological variables selected for this study are as under:

- I. Heart Rate measured was by finding the pulse of the heart.
- II. Blood Pressure was measured by a sphygmomanometer.
- III. Vital Capacity was measured with the help of Spiro meter.

Tools Used for Data Collection

1. Heart rate of the subjects was measured with the help of a sphygmomanometer and measurement was in number of pulse /minute.
2. Blood pressure was also be measured by using digital blood pressure apparatus and the unit was measured in mmHg.
3. Vital capacity of the subjects was measured by Spirometer in litre.

DATA ANALYSIS

Mean and standard deviation were calculated in order to study the selected physiological variables of Trained and Un-trained Under-Graduate students of AMU. To assess the significance of differences between the means "Z-test" was applied. The level of significance was 0.05

RESULT AND DISCUSSION

Results

Table 1: Shows Resting Heart Rate of Trained and Untrained Under-Graduate students of AMU

Variable	Trained Group		Untrained Group		Cal. z-value	z-critical value at 0.05 level of significance
	Mean	SD	Mean	SD		
Resting Heart Rate	65.47	5.29	74.2	14.59	3.56*	1.96

The Resting Heart Rate of trained group Mean = (65.47) SD = (5.29) was compared with untrained group Mean = (74.2) SD = (14.59). Significant difference was found between the groups. The calculated z-value was (3.56) which is greater than z-critical (1.96) at 0.05 level of significance 78 df.



Figure 1: Shows mean and SD of Resting Heart Rate of Trained and Un-trained Under-Graduate Students

Table 2: Shows Vital Capacity of Trained and Untrained Under-Graduate students of AMU

Variable	Trained Group		Untrained Group		Cal. z-value	z-critical value at 0.05 level of significance
	Mean	SD	Mean	SD		
Vital Capacity	3.89	0.40	3.39	0.32	6.25*	1.96

The Vital Capacity of trained group Mean = (3.89) SD = (0.40) was compared with untrained group Mean = (3.39) SD = (0.32). Significant difference was found between the groups. The calculated z-value was (6.25) which is greater than z-critical (1.96) at 0.05 level of significance 78 df.

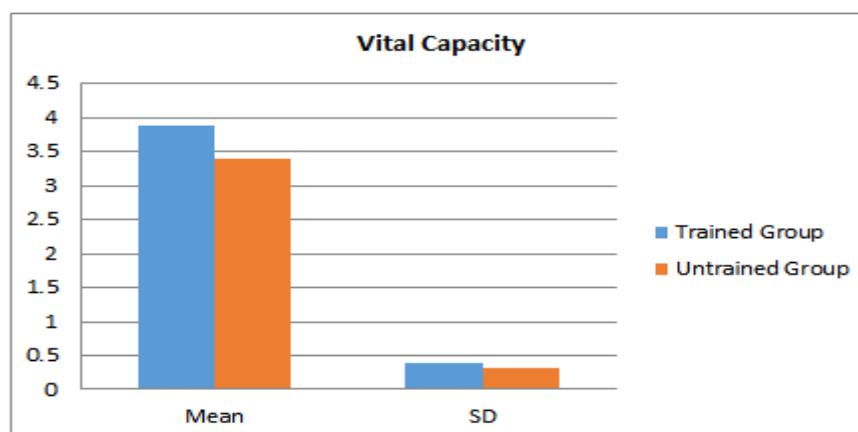


Figure 2: Shows mean and SD of Vital Capacity of Trained and Un-trained Under-Graduate Students

Table 3: Shows Resting Systolic and Diastolic Blood Pressure of Trained and Untrained Under-Graduate students of AMU

Variable	Trained Group		Untrained Group		Cal. z-value	z-critical value at 0.05 level of significance
	Mean	SD	Mean	SD		
Resting Systolic Blood Pressure	120.1	12.47	118.47	12.14	0.59	1.96
Resting Diastolic Blood Pressure	75.42	12.64	76.07	11.33	0.24	1.96

The Resting Blood Pressure of trained group Mean = (120.1) SD = (12.47) was compared with untrained group Mean = (118.47) SD = (12.14). No significant difference was found between the groups. Z-value (0.59) was smaller than z-critical (1.96). Diastolic Blood Pressure of trained group Mean = (75.42) SD = (12.64) and was compared with untrained group Mean = (76.07) SD = (11.33). No significant difference was found between the groups. Z-value (0.24) was smaller than z-critical (1.96)

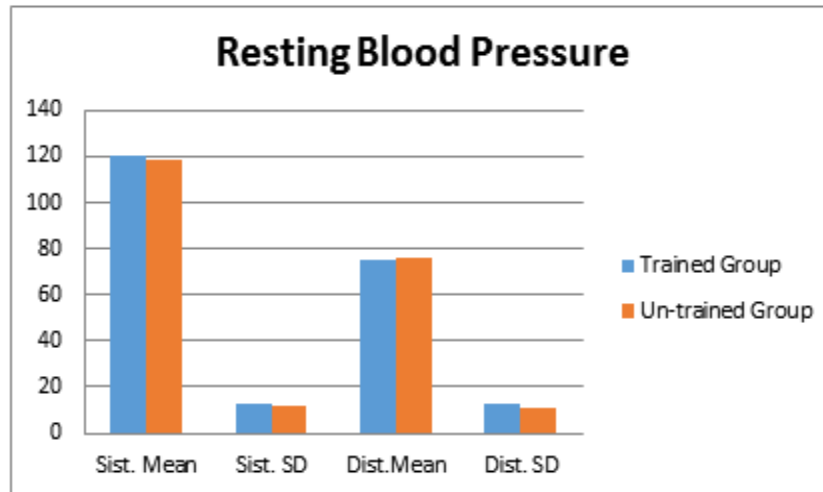


Figure 3: Shows mean and SD of Resting Blood Pressure of Trained and Un-trained Under-Graduate Students

DISCUSSION

The analysis of data for physiological variables like Resting Heart Rate and Vital capacity revealed that there was significant difference and Resting Blood Pressure showed that there was no significant difference between trained and Un-trained under-Graduate students.

The Major Findings Were:

1. Trained under graduate students showed better Resting Heart Rate than untrained Under-Graduate students.
2. Trained under graduate students showed higher Vital Capacity than untrained Under-Graduate students.
3. No significant Mean differences were found in Trained and Untrained Under-Graduate students of AMU.

Resting Heart Rate

The resting heart rate of trained Under-Graduate students was found significantly lower than untrained Under-Graduate students, similar results were found by (Vishakha, 2016) in his study. (Prasenjit, 2016) also stated that age and workout greatly influence the pulse rate. Furthermore, (Kaur and Singh, 2016) observed significant changes in pulse rate.

Vital Capacity

Trained Under-Graduate students had higher vital capacity than untrained Under-Graduate students (Vishakha, 2016) found that the morning conditioning significantly effects the exhale capacity of the participants. (Prasenjit, 2016) also stated that age and workout greatly influence the vital capacity.

CONCLUSION

Within the limitations of the study and from statistical analysis the following conclusion was drawn:

- I. There was significant difference of Resting Heart Rate between Trained and Un-trained Under-Graduate students of AMU through the Statistical Analysis.
- II. There was no significant difference of Resting Blood Pressure between Trained and Un-trained Under-Graduate students of AMU through the Statistical Analysis.
- III. There was significant difference of Vital Capacity between Trained and Un-trained Under-Graduate students of AMU through the Statistical Analysis.

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A SURVEY ON THE KNOWLEDGE OF CARE LABELS AMONG COLLEGE-GOING GIRLS

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ABSTRACT

The present research was undertaken to find out the analysis the knowledge between consumers's toward care labels. It examines knowledge of care labels , identify the symbols which are used on it, label placement on fabric, ecofriendly labels, etc. A self-developed questionnaire was used to collect data. The purpose of this study is to identify the knowledge of care labels between consumers. 30 sample size (college going girls) was selected from Home Science girls hostel, MPUAT, Udaipur. Results were systematically illustrated with the help of tables. Results confirmed that the respondents have knowledge about labels and care labels and they give some suggestion also that was to modified the quality of label some time labels got irritated them. They specified that they love to purchase quality product some time when they like the design and material of the product then they don't care about label too.

Keywords: care label, eco-friendly, consumer.

INTRODUCTION

Care label is a component or trimming of garment which contains some internationally recognized symbols that indicate the care instructions of the garment. These symbols are called care label codes.

Apparels and textiles are soiled during their normal use. From economic point of view these items must be cleaned and refurbished for reuse without substantially altering their functional and aesthetic properties. Consumers should be provided the knowledge of various processing conditions for care of the apparels. This is the joint responsibility of the apparel industry and the textile care industry and the consumer.

According to Federal Trade Commission's (FTC) rule 16 CFK 423, apparels should have permanent care label that provides information about their regular care. The purpose of the rule is to give the consumers accurate care information to extend the useful life of the apparel. Care labels should not be considered as a guarantee or a quality mark of the product.

According to ASTM D 3136-96, a care label is a label or other affixed instructions that report how a product should be refurbished. FTC defines "care label means a permanent label or tag, containing regular care information and instruction that is attached or affixed in some manner that will not become separated from the product and will remain legible during the useful life of the product.

METHODOLOGY

A self structured interview schedule was formulated to collect information from college going girls related to care levels. 30 sample size (College going girls) was selected from Home Science girls hostel, MPUAT, Udaipur. Results of the survey have been systematically illustrated with the help of tables.

RESULTS AND DISCUSSION

This section of the study shows very clearly the finding and interpretation in the context of objective of the study, thus providing a bird's eye view of the complete study which make this section the most significant crucial part of this study. The results of the study have been systematically illustrated with the help of tables tracing the objective of the present study.

Table-1: Frequency and Percentage Distribution of Respondents by age (n=30)

Age of responded	Frequency (f)	Percentage (%)
20-25	19	63.33
25-30	11	36.66

Table-2: Frequency and Percentage Distribution of Respondents by education (n=30)

Education of responded	Frequency (f)	Percentage (%)
UG	2	6.66
PG	13	43.33
Ph.D.	15	50

Age of the respondents was recorded and it was observed that maximum respondents (63.33%) belonged to the age group of 20-24 years and minimum respondents (36.66%) belonged to the age group of 25-30 years.

The data pertaining to education revealed that all the respondents were educated. Maximum number of respondents (50%) was Ph.D., 43.33 per cent respondents had qualification post graduate and only 6.66 per cent respondents were undergraduate.

Table-3 Frequency and Percentage Distribution of Respondents by knowledge about care labels (n=30)

S.No.	Variable	Frequency	Percentage
1.	Yes	26	86.67
2.	No	4	13.33

It is clear from Table 3 that **86.67** per cent respondents had knowledge about care levels and very few 13.33 percent respondents have not proper knowledge about labels.

Table-4 Frequency and Percentage Distribution of Respondents by identify the symbols used (n=30)

S.No.	Preference Criteria	Frequency	Percentage
1.	Yes	24	80
2.	No	2	6.67
3.	Moderate	11	36.67

***Multiple Responses**

It can be envisaged from the data presented in Table 4 that 80 per cent respondent's were identified the symbol used in the labels, 36.67 per cent said they were also know the symbols but not all labels and very few 6.67 per cent respondent's were denying to identify the symbols.

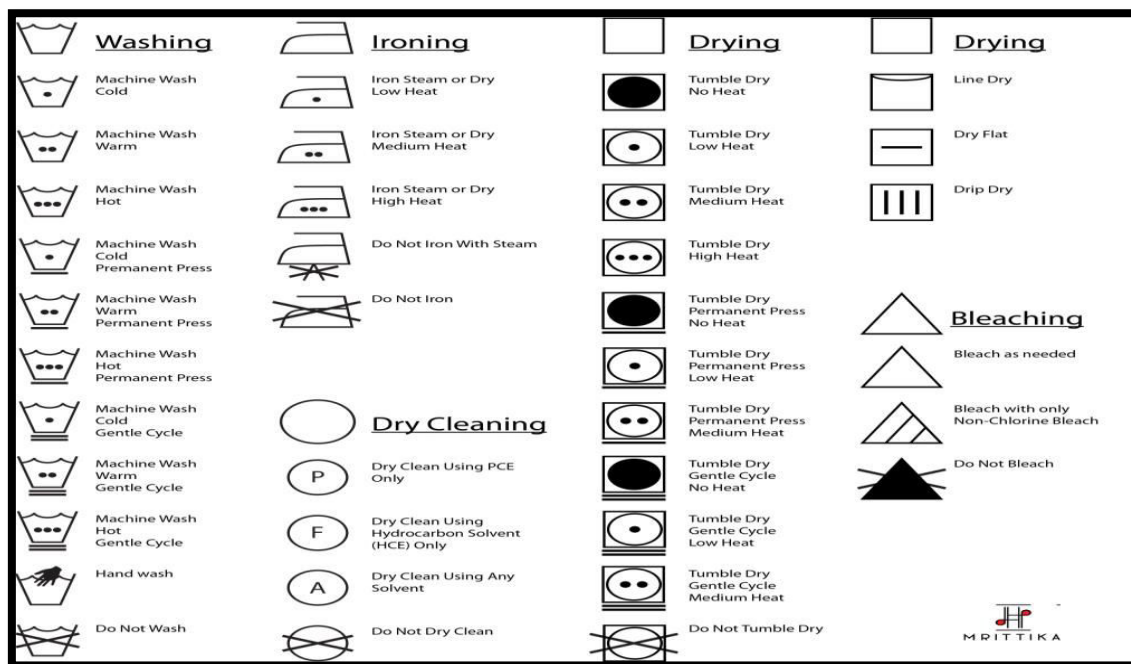


Table-5 Frequency and Percentage Distribution of Respondents by label placement on fabric
(n=30)

S.No.	Responses	Frequency	Percentage
1.	Agree	15	50
2.	Disagree	22	73.33
3.	Both	13	43.33

***Multiple responses**

The data revealed that 73.33 per cent respondents said that they have problem with labels because they became irritated after wearing cloths so they prefer printed labels which were easy to understand and no irritation problem and 50 percent respondent had no problem with placement of labels they want only quality of the product also some of these 43.33 percent respondent were satisfied but some how they also prefer printed label they think that when they spend money on the product so why they face any type of discomfort



Table-6: Frequency and Percentage Distribution of Respondents by their knowledge about eco friendly labels (n=30)

S. No.	Variable	Frequency	Percentage
1.	Yes	18	60
2.	No	12	40

It is clear from table 6 that 60 per cent respondents used to know about ecofriendly labels which were totally disposable to the soil and because of these labels environment didn't face any problem and also they prefer to buy these product on which eco labels were used, 40 per cent respondent were not using eco labels product only they use to buy these product which is nice looking and comfortable.



CONCLUSION

The survey evaluated on textile care labels in which total no of respondent were 30. During survey various type of question asked to the respondent for the data collection . Most of the respondents had knowledge about care labels and some didn't interested to know about labels they only buy these clothes which were looking good and comfortable. All respondent were active and well participated while questioning and also suggest some additional things like labels must be biodegradable and companies have to change the material of the labels because they became very irritated after wearing the fabric respondent prefer printed labels compare to tag labels .

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AFFILIATION OF BLOCK CHAIN TECHNOLOGY IN MARKETING INDUSTRY

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ABSTRACT

Block chain is one of the most celebrated and promising technologies of the 21st century, with the potential to disrupt business models in a wide range of industries, including finance, supply chain management, commerce, health care, and real estate. Block chain applications, which are based on Distributed Ledger Technology (DLT), offer new solutions to variety of business concerns including security, immutability of record keeping, efficiency and disintermediation, shifting the power balance within the value chain. How does network ownership affect the flow of information? Joining a network gives users with more than just utility, it also provides them with some benefits. This study examines the impact of Block chain technology on marketing from a variety of perspectives. The article identifies the important techniques that marketers must employ in order to thrive in today's fast changing business environment. Finally, judgments are reached about the future of marketing as result of Block chain technology advancements.

Keywords: *Block chain Technology, Block chain Applications and Marketing, Network ownership effect with block chain.*

INTRODUCTION

Marketing and Marketing control are inextricably linked. The internet, statistics generation and the upward thrust of social media and social networking sites(SNSs) have all modified the manner entrepreneurs speak with clients and control their advertising and marketing campaigns with inside the virtual age (Belch, Vlahvei and Notta, 2014) . Firms, manufacturers and entrepreneurs face aggressive benefit and disturbing surroundings due to virtual advertising and marketing and advertisement in addition to the merging of the virtual and actual global for clients.

The use of block chain generation may want to bring about even extra drastic extrade within side the methods we speak with clients and control advertising and marketing blend and programmes, redefining the that means and relevance of holistic advertising and marketing. Walmart and IBM NASDAQ have already created and carried out block chain answers to control their operations, which has had an effect on advertising and marketing programmes (O'Leary 2018), at the same time as Facebook is with inside the manner of growing its very own block chain-primarily based totally cryptocurrency machine to be used inside its social media platform (Andriotis et al, 2019). Despite the significance and capability of this new generation for advertising and marketing, studies at the problem continues to be in its early stages(Lietal.,2018) and is mainly centered on economic makes use of of the generation (Zhen et al.,2018. In this paper, we are able to try to provide a short evaluate of the way block chain works, its distinguishing developments and the capability makes use of and packages of block chain in advertising and marketing, in addition to a few actual-global examples.

By validating and comparing each customers adventure via demonstrated advert delivery, block chain could make data-pushed advertising and marketing extra obvious via way of means of confirming that a genuine man or woman noticed the advert in keeping with the requirement of a media contract. Marketers can be capable of manage how

their belongings are introduced via way of means of tracking wherein their commercials are placed, stopping advert fraud from automatic bots via way of means of making sure that actual fans and customers are attractive with their commercials, and making sure right advert engagement tracking, as a way to result in extra unique virtual attribution.

1.1 Erosion of Trust to Marketers

Consumers want to believe that variety, like an old friend, have their best interests at heart. Despite consumers' desire to feel protected and belief the intentions of a brands actions, they frequently are let down instead. Consumers have become more skeptical of quality promises since automation access has made it easy to detect a brand's lies via social media. Facebook, Amazon, and Uber are great examples of trade name that have disappointed their consumers in the past few years and need to work harder to regain consumers' trust. They are few of the many tradenames that have led to a nationwide decrease in consumer trust.

The market players are also focused on enhancing their product offerings to better cater to the changing needs of users and stay competitive. For instance, in July 2016, IBM Corporation announced the launch of a cloud solution for block chain networks. This cloud solution ensured the security of asset transactions against theft, counterfeiting, and other threats. Some of the prominent players operating in the block chain technology **Market Are:**

- IBM Corporation
- Microsoft Corporation
- Linux Foundation
- BTL Group Ltd.
- Chain, Inc.
- Circle Internet Financial Limited
- Deloitte Touche Tohmatsu Limited
- Digital Asset Holdings, LLC
- Global Arena Holding, Inc. (GAHI)
- Monax
- Ripple

Report Attribute	Details
Market size value in 2021	USD 5.88 billion
Revenue forecast in 2028	USD 394.60 billion
Growth rate	CAGR of 82.4% from 2021 to 2028
Base year of estimation	2020
Historical data	2016 – 2019
Forecast period	2021 – 2028
Quantitative units	Revenue in USD million and CAGR from 2021 to 2028
Report coverage	Revenue forecast, company ranking, competitive landscape, growthfactors, and trends
Segments covered	Type, component, application, enterprise size, end-use, region
Regional scope	North America; Europe; Asia Pacific; South America; Middle East& Africa
Country scope	U.S.; Canada; Mexico; France; Germany; U.K.; China; Australia;India; Japan; Brazil; UAE; Saudi Arabia

1.2. Defining Block Chain Technology

In simple words, a block chain is a deconcentrated distributed digital ledger, that is, a database across several nodes or computing devices. Each validation transaction (data exchange) is stored into units known as blocks. Each block holds the transaction data, a timestamp, and the cryptographic hash of its foregoing block.

Rather than relying on a centralized system, a block chain uses a Peer to Peer network to store data at multiple locations. Each location is called a node, and it stores a copy of the data right from the genesis block (Block 0). Every time a new record is added in the database, it impulsive gets updated across all nodes on the network.

2.1 Evolution of Block Chain Technology

The roots of block chain technology can be traced back to 1991 when Stuart Haber and W. Scott Stornetta suggest a concept called a block chain. It was a system that include off a chain of blocks secured by cryptography and digital timestamps that could not be altered.

In 2008, an anonymous entity (a person or persons) named Satoshi Nakamoto used this concept to introduce Bitcoin — a cryptocurrency that enabled people to carry out task without the need of a mediator such as a Financial institution (Bank).

Over the course of a decennium, several cryptocurrencies entered the market such as Ethereum, Litecoin, Ripple, EOS, and so on

Beyond money and markets, block chain 3.0 refers to digital applications. Government, smart cities, health records, education and science are just a few of the domains where block chain 3.0 can be used.

2.2 Key terms in Block Chain Technology

- **Decentralization**

During a centralized or client-server model, there's one (or more) entity referred to as the server that hosts all the information(facts), and you (the client) should transmit with the server to realize access to the info. as an example, if you wish to send cash to somebody via the web, you wish to try to therefore by probing a intercessor like a bank. alongside the addition of a middleman, the centralized model is at risk of several threats like knowledge leaks. On the opposite hand, a Peer to look network is suburbanised. There's no single host of the data. In fact, as seen earlier, each node within the network stores the data regionally. So, if you wish to send cash to somebody, you'll do therefore straightly while not routing it through a middleman.

- **Unchangeability**

The second facet is security through the soundness of records. Once a block is verified, the info keep in it can't be altered. albeit somebody tries to deceive a block within the block chain, it'll considerably modification the info alongside the hash of its previous blocks. Since the entire block chain has currently modified, it can't be verified with the other fork(node). Anyone attempting to hack into the block chain has to alter records at each node, that is much not possible.

- **Transparency**

Since block chain could be an allot digital ledger, all users within the block chain have access to the transactions that have taken place. whereas this facet may raise some eyebrows, there's no ought to do therefore as a result of though the transactions are accessible to the block chain users, the identity of users remains hid.

3.1 Network Ownership Effect

Block chain generation has the capacity to democratize beginning a brand new commercial enterprise with the aid of using coining a brand new concept, community possession results

additionally referred to as token community results (Dixon, 2017). It does so with the aid of using incentivizing all of the stakeholders of a challenge with the aid of using worthwhile for engagement to the community. Catalini et. al (2016) give an explanation for this with the aid of using declaring that, relative to open supply tasks that rely upon donations of time and resources, Block chain primarily based totally tasks provide direct, economic incentives.

As against community results, in community possession results, the possession of the community is sent to contributors of the environment the usage of tokenization.

Utility purchasers get from becoming a member of the community isn't the handiest advantage they receive. Participants who want to very own challenge tokens additionally advantage with the aid of using the boom in token fee. When challenge is in its infancy, folks who trust with inside the challenge's tale are willing to shop for its tokens at the same time as the fee is cheap. As they very own extra tokens, they evangelize the challenge to others. As such, in the beginning ownership of the network by participants is the key driver for the network to gain momentum.

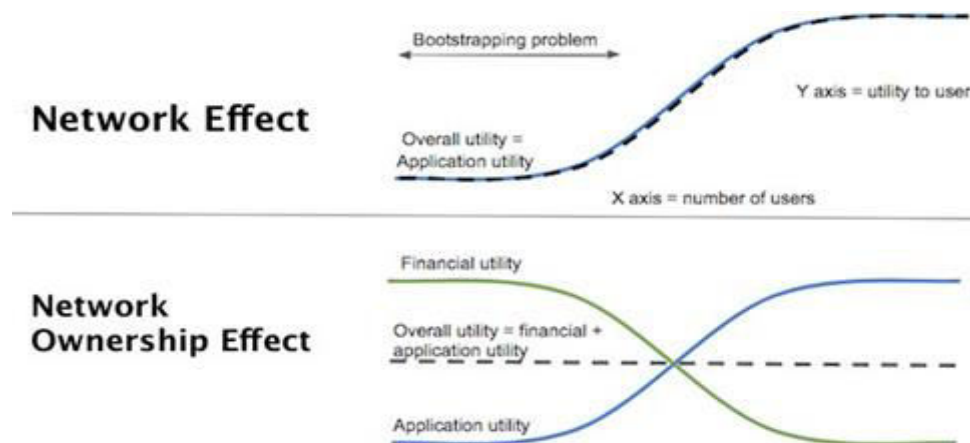


Figure 1: Network Ownership Effect (adapted from Dixon, C. (2017))

After reaching the critical mass, network effects take place. Naturally, at this point, token price increase and stabilize. As a Block chain based competitor to Uber, Lazio project is an example to this phenomenon. Drivers are paid with Zooz tokens in the network. At the beginning, drivers do not differentiate between accepting fiat currency or Zooz token. There are many Block chain based projects that employ complex mechanisms to incentivize all the stakeholders in the network. Pazaitis et. al (2017) describe such systems as decentralized cooperation systems

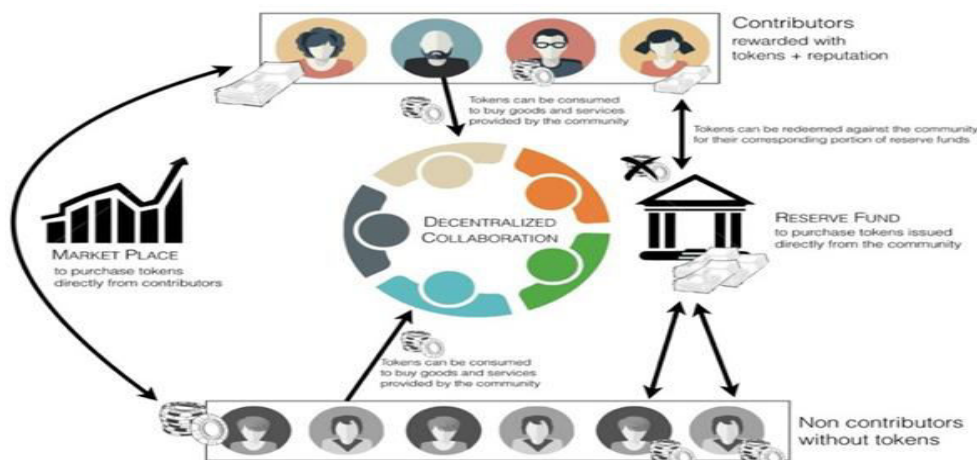


Figure 2: Decentralized Cooperation (Adapted from Pazaitis et al. 2017)

In such systems, contributors and non-contributors earn and trade tokens to buy goods and services served by the community. As an example, Blockchain based social media platform, Steemit, rewards content creators and content curators with steem tokens. Consumers, especially younger generations tend to gather around specific causes they care about and are willing to actively participate by forming dynamic communities. As such, for brands to succeed in this age, in addition to a good gamification (mechanism) design, cause related marketing and storytelling is going to be among key marketing strategies (Ertemel, 2017; Ertemel, 2016). We can see the effects of these strategies on Steemit project. The project has spent no marketing budget; instead, community members themselves authored a free e-book entitled Steemit 101. The community self-organized an international festival – SteemFest and even paid to advertise on billboard in Chicago, US. Furthermore, the Steemit community created a 3rd party ecosystem for alternative interfaces and analytical tools to create a richer social media experience (Bruckhman, 2016).

RESEARCH OBJECTIVES

- To know the concept of Block Chain technology affiliation in the Marketing Industry.
- The purpose of this project is to investigate and analyse the role of Block Chain technology in the Marketing Industry.
- The motive of this study is to look into relationship between marketing and the network ownership effect.

RESEARCH METHODOLOGY

The present study is descriptive in nature. The study is based on secondary data and has been collected from various Websites, reputed Journals, Articles and Websites.

Applications of Block chain in Marketing

1) Influencer Marketing

Influencer marketing has been increasing in its scope in tandem with the amount of influencers on various social media platforms. However, there are some difficulties that brands hiring influencers to assist spread the word run into. A rather significant problem is that the matter in tracking the influencer's efficacy.

There is no thanks to know whether the influencer's reach is style of the utmost amount as claimed. Block chain technology are often of great aid in analysing the information generated by every individual customer's promotions and thereby assess their efficacy as an influencer.

2) Affiliate Marketing

Affiliate marketing can suffer from many of the identical problems that influencer marketing does. there's little question that affiliate marketing is effective, providing it's utilized in nearly every domain now. Just how effective it's is that the question. Block chain can track and improve the efficiency of affiliates in several ways.

It can introduce the employment of cryptocurrency to make payments, thus simplifying transactions. Block chain is also accustomed introduce smart contracts, making it very easy to trace the quantity of users brought in by each affiliate. this might save brands from investing in affiliates that don't bring any evident value.

3) Loyalty Programs

We are all a component of 1 loyalty program or the choice. One might join a brand's loyalty program either because one will be a frequent shopper of a brand or because one sees some reasonably monetary benefit in joining the loyalty program. But an outsized portion of loyalty program reward points generally goes unredeemed. This creates large financial liability for the brand that owns these points.

With blockchain in marketing, multiple brands can hindrance and form an alliance with a typical reward points system. Once this method has been created, reward points from one brand are often used with another, resulting in a win-win situation for the brands and thus the customer.

4) Targeted Advertising

This is among the holy grails of selling. How does one reach customers who are more likely to use your product than others? Targeted advertising for brands can often be like shooting arrows within the dark, hoping that a minimum of 1 will hit the target. within the strategy, brands find yourself spending huge amounts of cash with little or no return. Block chain changes all that.

5. Ad fraud

Another major application of block chain in marketing is its use to stop advertising fraud. A score of networks can swindle brands that are paying for legitimate advertising by posting these ads on illegitimate websites with absolutely no return. this could even be drained the shape of faux or malicious advertisements, which don't have any return on investment for brands and damage their reputation.

Block chain technology is additionally employed during this relevance remove all the middlemen involved during a transaction. Only the brand and also the advertisement publisher are involved and are in direct contact, and payments are made automatically.

Democratization of Supply and Cost Reduction

Another way value can be co-created in Block chain is the state in which customers take the role of suppliers. Undoubtedly, the ultimate form of collaborative economy is when old customers become new competitors. For example, decentralized cloud based storage initiatives on Block chain technology like Storj and Filecoin aim at democratizing the storage business by letting everyone with idle storage capacity to share their unused disk space and become suppliers. Participants who share their disk capacity get monetary rewards with tokens. Instead of relying on monopolies like Amazon.com, democratization of supply is expected to lead to 90 percent decrease in cloud storage prices (Epstein, 2017).

Catalini and Gans (2016), Block chain allows market participants to perform costless verification, and thereby it lowers the costs of auditing transaction information. Thus it makes it efficient to make transactions in the market- places where it would previously have been inefficient due to low the transaction value compared to the transaction costs.

An example of this are different sharing economy platforms that require a verification of trust and mechanisms to monitor reputation and payment systems.

Drawbacks of Block chain Technology

Block chain technology is still in its infancy and faces scalability problems. We need to wait at least for several years till the technology is matured enough to be production-ready scalable. On the other hand, not all Block chain based initiatives are necessarily decentralized. Fairly centralized projects can also be designed and implemented on top of Block chain technology making central authorities even more powerful. This aspect deserves caution when assessing Block chain based projects.

CONCLUSION

Block chain, marketers face new challenges. Customer data is envisioned to be owned by customers themselves making brand behaviour easier than ever. Seamless customer experience is the only key to differentiate for the marketers. All in all, brands have to appeal to audiences with their story and cause in order to succeed. This is the only way to make consumers unite and build up communities they care for and actively participate. On technological level, Block chain enables these concepts to come true.

Block chain is still in its infancy and it will take some time until we see Block chain based projects on the mainstream. However, Block chain technology has a lot of serious implications for marketers that need to be studied from now on.

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AN ASSESSMENT STUDY OF HEALTH RELATED PHYSICAL FITNESS OF SCHOOL CHILDREN WITH THE COMPONENTS OF MUSCULAR STRENGTH AND ENDURANCE

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ABSTRACT

With 14.4 million obese children, India stands as the second largest country in the world and it is next to China as the home for obese children. Through various study and research, it is emerged as an established fact that obesity is linked to heart disease, high blood pressure, diabetes, respiratory problem and slow mental growth etc. In the study, schools were selected by using purposive sampling in consideration of feasibility aspect. The sample size of the study was 1000 school children comprising of government school and private school with age range of 6 to 10 years. It is concluded in the study by its findings that government school children carry higher significance on muscular strength and endurance than that of private school counterparts.

Keywords: Muscular strength, Muscular endurance, Obesity etc.

INTRODUCTION

Childhood obesity is a growing epidemic in the world. Alarming it is affecting more than 18% of children in some western countries. Childhood obesity is emerging as a global health issue. As per the report of World Health Organization (WHO), obesity in children nearly has been tripled since 1975 in the world. Further the report suggests that the prevalence of overweight and obesity among children and adolescents aged 5-19 increased alarmingly from just 4% in 1975 to just 18% in 2016 (WHO, 2016). The National Family Health Survey of India (NFHS-5) conducted in 2019-21 published a report of the survey that 3.4% children under five years are now overweight compared to 2.1% in 2015-16. WHO report had also suggested that 39 million under the age of 5 were overweight or obese in 2000 globally. Over 340 million children and adolescents with age range from 5-19 were overweight or obese in 2016.

As a developing country, in recent time, India is witnessing the double burden of diseases including childhood and adolescent obesity in one front and on other front the menace of non communicable diseases, malnutrition and overweight (Rajanitt et.al. 2016). The majority of overweight and obese children live in developing countries having an increased rate of more than 30% which is higher than that of developed countries (WHO Report, 2018). Obesity in children and adolescents is slowly emerging as a major public health challenge in many developing countries including India (Pepkin BM et. al. 1998).

Obesity is defined as abnormal or excessive fat accumulation that may impair health. It further clarifies the primary cause of obesity and overweight as an outcome of energy imbalance of calorie consumption and calorie burnt. Another contributing factor of obesity is an increase in physical inactivity due to the increasingly sedentary nature of the various types of work, changing mode of transportation and rapid urbanization (Global Health Observatory 2021).

The prevalence overweight and obesity in children is 15%. In private schools catering to upper income families, the incidence has shot upto 35-40% showing a worrying upward trend in growth. The childhood obesity carries a serious bearing on their health. Obese children are prone and very susceptible to the risk of hypertension, osteoarthritis, high cholesterol and

triglycerides, Type-2 diabetes, stroke, gallbladder disease, respiratory problems, emotional disturbances and some cancers (Narayana Health, 2019).

As per the guidelines of WHO, the obesity is physical state or condition where a Body Mass Index (BMI) greater than or equal to 30. Body Mass Index (BMI) is a calculation that uses height and weight to estimate the body fat. Body Mass Index (BMI) is calculated by Weight in Kg /Height in m².

The childhood obesity is a result of the interaction of natural selection favoring those with more economical energy metabolism and the present consumerist society with availability of energy rich foods and less energy demand in daily life (Han JC, et al 210).

The factors contributing to the childhood obesity are over usage of technology, frequent consumption of snacks and portion size of meals and the reduction in physical activity of children. A study revealed that use of electronic devices 3 or more hours a day carried 17-44% increased risk of being overweight or a 10-16 increased risk of obese (Cespedes ML, et al 2011).

In India, medically it is found that Indians are genetically predisposed to obesity. However through various studies, it is commonly found that rapid increase in childhood obesity is largely due to environmental influences.

The Centre for Health Promotion & Wellness at MIT Medical terms physical fitness is to human body what fine tuning is to an engine. It enables an individual to perform to one's potential. Fitness can be described as a condition that helps an individual to look, feel and do at one's best. Physical fitness also comprises the performance of heart and lungs and also the muscles of the body.

Health related physical fitness is defined as a multi dimensional construct containing the components cardio respiratory endurance, muscular strength, muscular endurance, flexibility and body composition (Britton U et.al 2019).

Health related physical fitness (most commonly, aerobic fitness, body composition, muscular strength, muscular endurance, and lower back and hamstring muscular flexibility) that are associated with some aspects of overall good health or disease prevention (Medical Dictionary for the Health Professions and Nursing 2012). For improving of health related physical fitness including cardiovascular endurance, muscular strength and endurance, flexibility and body composition is conducive and precondition for improving health. Through the findings of the study, it is reported that muscular strength and endurance are linked to established and emerging cardio vascular disease risk factors. In addition to that improvement in muscular strength, muscular endurance and flexibility give positive effect on skeletal health (Ortega FB et. al 2008). Muscular strength is one of the most pertinent components of physical fitness with enormous positive influence on health status (Galancho-Reina I. et al 2019).

Health related physical fitness is a physiological state of well being that reduces the risk of hypokinetic disease, a basis for participation in sports, and vigor for the tasks of daily living (F W Booth, 2014).

The components of Health related physical fitness are Cardio vascular endurance, Muscular strength, Muscular endurance, Flexibility and Body Composition. There is unanimous consensus in the fitness community that these are five components of Health related physical fitness.

Muscular strength is generally defined as the maximum amount of force that a muscle can exert against some form of resistance in a single effort.

Muscular endurance is the ability to resist fatigue while holding or repeating a muscular contraction.

THE OBJECTIVE OF THE STUDY

1. To carry out an assessment study on muscular strength and endurance of Primary school children.
2. To find out the health related physical fitness level of Primary school children of Lower Assam Districts through two components muscular strength and endurance.

Statement of the Problem

The purpose of the study was to assess the Muscular endurance Muscular strength of Primary school children of Lower Assam.

Hypothesis of the Study

In this study, the following hypothesis was put forth:

1. It was predicted that there would be a significant difference in Muscular Endurance and Muscular strength between the Private school children and Government school children.

Delimitation of the Study

1. The study was conducted by randomly selecting 1000 school children as subjects of the study of Lower Assam districts comprising of Bongaigaon, Chirang, Baksa and Kokrajhar.
2. The study was delimited to Muscular endurance and Muscular strength out of the five components of the Health related physical fitness.

Limitation of the Study

1. Limitation of the study comprised of those aspects of the subjects living style, economic condition, eating habits, genetic and environmental factors that were not controlled or identified throughout the investigation and testing period.

Materials and Method of Data Collection

Total 1000 students studying in primary level from Class I to Class V of government and private schools with age group of 6 to 10 years who volunteered to participate in the study. Before commencement of the study, the participants were informed of the test protocols and procedures and to ascertain equal efforts in the test, participants were encouraged throughout the test. Participants were made acquainted with the test prior to the study. The voluntary written consent was obtained from each participant and parents prior to the start of the study. The study was conducted in the primary schools of Baksa, Bongaigaon, Chirang and Goalpara districts of Lower Assam. As an important and cardinal part of ethical research work, the nature and scope of study were explained to the subjects and their respective parents. Further, the necessary permission was obtained from the school authorities and Office of the District Elementary Education. Officer (DEEO) of the above mentioned four districts for conducting the study.

Out of the five components of the Health related physical fitness, to assess the Muscular strength and endurance the Bent Knee -Push-up and Bent Knee Sit-up were applied in the study. Those two test batteries were selected considering the age of the subjects and easy applications.

Statistical Analysis and Interpretation of the Results

In the study, for the purpose of data analysis the IBM SPSS STATISTIC 2022 version used. Independent t Test was employed to find out the significant differences.

Table1: Independent t –test for Muscular Endurance of children of Government school and Private school

	Group	Number of subject (N)	Mean	Standard Deviation (SD)	Standard Error (SE)	t	Sig.
Muscular endurance	Private school children	500	13.74	4.05	0.18	<.001	15.94
	Government School children	500	18.64	5.54	0.25		

$p < 0.05$

N=Number of students, SD (σ) =Standard Deviation, SE=Standard Error, t=Student't distribution

In the table 1, it is found that the Mean of Muscular Endurance of Private school children was found 13.74 whereas it was 18.64 for Government school children. Standard Deviation of Private school children and Government school children was 4.05 and 5.54 respectively. There was significant difference in Muscular endurance between Private school children and Government school children.

Table 2: Independent t-test for Muscular Strength of children of Government school and Private school

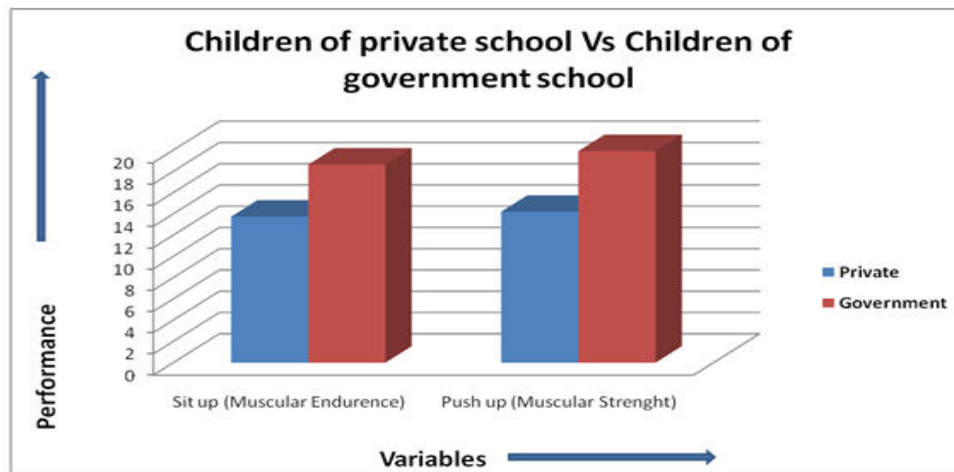
	Group	Number of subject (N)	Mean	Standard Deviation (SD)	Standard Error (SE)	t	Sig.
Muscular Strength	Private school children	500	14.21	4.10	0.18	<.001	18.79
	Government School children	500	19.91	5.40	0.24		

$p < 0.05$

N=Number of students, SD (σ) =Standard Deviation, SE=Standard Error, t=Student't distribution

In the table 2, it was observed that the Mean of Muscular Strength of Private school children and Government school children was 14.21 and 19.91 respectively. Standard Deviation of Private school children was 4.10 whereas it was 5.40 for Government school children. There was significant difference in Muscular strength between Private school children and Government school children.

Figure 1: is the graphical representation of the findings of the Independent t Test on Muscular Endurance and Muscular Strength between the Private school children and Government school children.



CONCLUSION

Within the limitations and delimitations of the study, the following conclusion was drawn:

1. The children of Government school were found higher Muscular endurance and significantly greater values than the children of Private school.
2. Again, it is concluded with the findings of the study that the children of Government school were found significantly higher Muscular strength and greater values than the Private school.

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A STUDY ON PROBLEMS AND PROSPECTS OF BLOCK CHAIN TECHNOLOGY APPLICATION AT SBI

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ABSTRACT

Block Chain technology is process of recording the transactions across the entire network of computer system in such a way that it doesn't allow any changes, hacks or unauthorised access. It is latest technology which is gaining attention of business sectors throughout the world. This study aims at studying application of block chain technology and its different methods. Type of technology applied at SBI Bank. Advantages and challenges faced by the Bank in adopting this technology have been focused. Information required for this research has been gathered from secondary sources. Research article aims at finding suggestions for the challenges faced by SBI in application of Block chain technology.

Keywords: Block chain technology, Methods, Application, Challenges

INTRODUCTION

Block chain is essentially a digital ledger maintained by banks that provides an unalterable record of transactions between the parties. Computers on a network validate each transaction before it's added to the block chain and cannot be changed once completed.

There are four types of Block chain Technologies, Namely Public Block chain, Private Block chain, hybrid Block Chain and Consortium Block chain.

Public Block Chain: It is a form of decentralised network, where in any people in the network can read, write and Audit the contents and they can also add blocks. Ex: Bitcoin and Ethereum

Private Block Chain: It is a closed data base secured with cryptographic concepts and needs of the organisation. It is not a decentralised network. Under private block chain technology based on permitted credentials people can access complete data, make transactions and only with proper authentication changes in Block chain can be made.

Hybrid Block Chain: This technology uses the features of Private block chain system but provides decentralized access to its participants by ensuring the data is safe in its actual form. Banks such as **HDFC, ICICI, and SBI**, the Reserve Bank of India (RBI) is interested in developing a proof-of-concept block chain project aimed at trade financing.

Consortium Block Chain: It refers to a group of private block chains, each owned by individual institutions that have combined together to share information to improve existing workflows, transparency and accountability.

Block Chain Technology Used in SBI:

SBI is the Indian largest public sector bank having more than US\$ 51 billion transactions. It the largest bank with more number of branches, ATMs and the bank providing greater amount of financial services.

SBI is having more than 6 crore net banking users and also providing various services like net banking fund transfers, electronic banking, real time gross settlements and services through YONO – SBI apps. There are millions of customers who regularly use the UPI payment systems by linking their SBI accounts.

Advancement in technical aspects and digital transformation has been resulted in reducing the cost of operations of the banks and it is also helping the banking sectors in India to reach crores of customers. All the banking sectors trying to the best possible extent to reach its customers with better digital technology and ensuring banking services available at anywhere and anytime with the assurance of 24/7 and thereby meeting global standards.

SBI uses **Finacle software – an universal Banking solution from Infosys** to empower its International operations across 20 countries, Coming to adoption of Block chain technology it has tie up with JB Morgan – US based bank to speed up overseas transactions.

REVIEW OF LITERATURE

Gupta, Abhishek & Gupta, Stuti. (2018). In their research article on – Block chain Technology Application in Indian Banking Sector discussed about the benefits of this technology adoption by Indian Banking sector. Article also covered the challenges and global perspectives pertaining to block chain technologies especially with banking sectors.

Zhao, J. & Fan, Shaokun & Yan, Jiaqi. (2016). Overview of business innovations and research opportunities in blockchain and introduction to the special issue. Financial Innovation. Blockchain has become a new frontier of venture capitals that has attracted the attention of banks, governments, and other business corporations. The recent blockchain related attempts included legal blockchains by Fadada.com and Microsoft and pork tracking blockchains by Walmart and IBM. Blockchain is poised to become the most exciting invention after the Internet; while the latter connects the world to enable new business models based on online business processes, the former will help resolve the trust issue more efficiently via network computing. In this paper, we give an overview on blockchain research and development as well as introduce the papers in this special issue. We show that while blockchain has enabled Bitcoin, the most successful digital currency, its widespread adoption in finance and other business sectors will lead to many business innovations as well as many research opportunities.

Yli-Huumo, Jesse, et al (2016). Where Is Current Research on Blockchain Technology?—A Systematic Review. Blockchain is a decentralized transaction and data management technology developed first for Bitcoin cryptocurrency. The interest in Blockchain technology has been increasing since the idea was coined in 2008. The reason for the interest in Blockchain is its central attributes that provide security, anonymity and data integrity without any third party organization in control of the transactions, and therefore it creates interesting research areas, especially from the perspective of technical challenges and limitations. In this research, we have conducted a systematic mapping study with the goal of collecting all relevant research on Blockchain technology. Our objective is to understand the current research topics, challenges and future directions regarding Blockchain technology from the technical perspective. We have extracted 41 primary papers from scientific databases. The results show that focus in over 80% of the papers is on Bitcoin system and less than 20% deals with other Blockchain applications including e.g. smart contracts and licensing. The majority of research is focusing on revealing and improving limitations of Blockchain from privacy and security perspectives, but many of the proposed solutions lack concrete evaluation on their effectiveness. Many other Blockchain scalability related challenges including throughput and latency have been left unstudied. On the basis of this study, recommendations of future research directions are provided for researchers.

Olnes, Svein. (2015). BEYOND BITCOIN - Public Sector Innovation Using the Bitcoin Block chain Technology. The virtual currency Bitcoin has got a lot of attention since it was presented in late 2008 and implemented in early 2009. However, the main attention has been on the currency and not the underlying technology called the block-chain. This paper argues that we need to look beyond the Bitcoin currency and investigate the potential use of the block chain technology also for public sector as a mean for a secure, distributed, open, and inexpensive

database technology. The technology is discussed as an information infrastructure and the generatively it allows and supports. After a thorough overview of academic publications on the subject of Bitcoin, and especially Bitcoin used in public sector, the paper presents a relevant use case highlighting the innovation potential of the new, distributed technology. The literature review reveals that the Bitcoin technology is absent from the e-Government literature, despite the undeniable high innovation potential it represents also in public sector. The use case presented shows that Bitcoin could be a promising technology for many types of permanent, or relatively permanent, documents in public. Blockchain is now in the news, and a lot of companies are working on blockchain technology. The first time the blockchain come into existence in the case of cryptocurrency where the decentralized architecture is followed for mining and storage. The trend of cryptocurrency is increasing day by day and, in other fields, the blockchain is in development. In this book, the chapter author has discussed the future and recent trends, history of blockchain technology. How to make a block and what is the initial requirement to build up the blockchain. The Book chapter gives an overview of the challenges associated with this technology. Later in the section, you will learn about how the blockchain work and the basic functionality of the block with some case study like smart farming, credit fraud detection, etc..

Sharma, Ajay & Guleria, Vandana & Jaiswal, Varun. (2022). The Future of Blockchain Technology, Recent Advancement and Challenges. Blockchain is now in the news, and a lot of companies are working on blockchain technology. The first time the blockchain come into existence in the case of cryptocurrency where the decentralized architecture is followed for mining and storage. The trend of cryptocurrency is increasing day by day and, in other fields, the blockchain is in development. In this book, the chapter author has discussed the future and recent trends, history of blockchain technology. How to make a block and what is the initial requirement to build up the blockchain. The Book chapter gives an overview of the challenges associated with this technology. Later in the section, you will learn about how the blockchain work and the basic functionality of the block with some case study like smart farming, credit fraud detection, etc.

Zalte-Gaikwad, Sheetal & katkar, pallavi. (2021). Blockchain Technology: Rising Trend in Various Applications. In this tech world, size of block chain is exponentially growing in this covid pandemic year which was not predicted. This pandemic environment causes digital transformation drive in various areas, particularly via the utilization of block chain or distributed ledger technology. To enhance and accelerate business process in various organization and industry showed a growing interest to adopt this technology. This paper summarized various block chain applications which are widely used in number of sectors and also focus on some challenges becomes hurdle while adopting block chain technology. In this tech world, size of block chain is exponentially growing in this covid pandemic year which was not predicted. This pandemic environment causes digital transformation drive in various areas, particularly via the utilization of block chain or distributed ledger technology. To enhance and accelerate business process in various organization and industry showed a growing interest to adopt this technology. This paper summarized various block chain applications which are widely used in number of sectors and also focus on some challenges becomes hurdle while adopting block chain technology. In this tech world, size of block chain is exponentially growing in this covid pandemic year which was not predicted. This pandemic environment causes digital transformation drive in various areas, particularly via the utilization of block chain or distributed ledger technology. To enhance and accelerate business process in various organization and industry showed a growing interest to adopt this technology. This paper summarized various block chain applications which are widely used in number of sectors and also focus on some challenges becomes hurdle while adopting block chain technology.

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Kaushik, Anjali & Khatri, Arun. (2021). Systematic literature review on blockchain adoption in banking. In this paper we discuss the impact that blockchain will have on banking in future and show the increasing importance of distributed ledger based transactions for the banking industry. Finally, this paper brings together the research work published in several reputed databases, in hope of motivating more active engagement by academics, researchers and bankers alike. A comprehensive review of the blockchain adoption in banking to date and across the geographic areas is presented as a result of comprehensive review of literature. Conclusion- The collaboration of blockchain and banking is not very old, comparatively novice and we have tried to include all the significant studies till date across various databases of research.

RESEARCH GAP

From the reviews made by the researcher, block chain technologies in various business entities including banking service sectors, its implications, advantages and challenges have been focused. Hence the gap of the study is pertaining to individual banking especially largest public sector bank SBI. Public sector banks always need to face the challenges related to financing digital infrastructure, meeting its huge customer needs and to be in line with the regulations given by central government. Hence this title has been selected for the study.

OBJECTIVES OF THE STUDY

1. To study various forms of block chain technologies and its application at SBI.
2. To understand the need of this technologies
3. To identify the problems involved in application of Block chain technology at SBI
4. To draw the conclusions and suggestions to overcome the problems related to application of Block chain technology

RESEARCH METHODOLOGY

This research article is an conceptual based, information so required has been gathered from secondary sources from official website of the SBI Bank, articles pertaining to block chain technologies from journals and magazines.

FINDINGS

Need for Block Chain technologies at SBI:

SBI has tied up with JB Morgan – US based bank for introducing this block chain technologies in their operations to achieve an enhancement of fastest transactions across world. Application of this technology resulted in:

1. **Cost Minimization:** Block chain technologies do not need any third party entities to deploy and maintain systems that keep a record of the banking transactions; therefore cost per transactions can be minimized.
2. **Quick Payments:** SBI has a wide network of correspondent banking with about 600 foreign banks to facilitate remittances. At present SBI customers are availed with the facility of remittances like SBI express remit, demand drafts, Telegraphic/ wire transfers/ personal cheques and travellers cheques which used to take around 2 weeks earlier but now all these facilities can happen within few hours because of introduction of block chain technologies.

3. **Modernization in Mode of Services:** Introduction of this technologies enabled banks to provide high standard quality services and to offer many new products to its customers. Meanwhile it also resulted in improving their competency level and to achieve dominance over creative fintech start-ups.
4. **Latest Version of Settlement and Easy Clearance System:** Introducing Block chain technologies in banking sector resulted in more benefits. It avoids drags in any transactions by providing quick settlements. In case of money transfers across the world, banks faces certain logistical hurdles, a basic bank transfers need to happen through custodial services, bank accounts to get reconciled globally which needs huge network funds, asset managers, dealers and other businesses.
5. **Easy Trade Financing:** SBI finances 10 lakh to 10 crore trade finances in the form of Bill finance, cash credit, term loan, LOC and Bank Guarantee. Block chain technology can ease the trade financing by minimizing the formalities and procedures involved.
6. **Increase in Efficiency:** Adopting Block Chain technology resulted in eliminating the risk of errors and duplications. It is strengthening point to the digital transformation happening in current scenario. Assured encryption of the data is enabling settlement of any transactions within few minutes. It helps to have proper authentication with accuracy, 24/7 banking services, easy KYC maintenance, it also reduces the burden of complexity associated with multiple ledgers. Banks can have publically available single ledger with proper encryption and reliability of the data.

Challenges Involved in Adoption of Block Chain Technologies at SBI:

1. **High Installation Cost:** For any public sector Banks the major challenge is to bare high cost involved in framing its strong digital infrastructure, Even though SBI is the largest public sector bank, introduction of new technologies involving huge cost affects its financial policies.
2. **Regulations:** Lack of structured regulations is one of the challenges pertaining to block chain technologies. Bitcoin is gaining world's negative attention due to weak regulations resulting in drastic manipulations. SBI is already struggling with market manipulations, scams, duplication of URL links, hence introducing block chain technologies in huge may also add few hurdles.
3. **Technical Infrastructure:** Block chain technology is all about having large network of participants widely distributed throughout the world, establishing huge network with the help of dealers and asset managers may require little more time and funding.
4. **Scalability:** when it comes to speedy transactions Lightning network and Plasma for Ethereum stands first than Block chain technology. However Banks can think about adopting those technologies in future.
5. **Downfall in share prices of the Banks:** Since Block chain technologies are providing shared ledger transactions, People can trade directly with each other. Hence it eliminates the requirement of banks as intermediaries, which indirectly results in less scope for banks and reduction in its share prices.

SUGGESTIONS

- Banks can think about having tied up with software industries to achieve cost efficiency. It can also enter into mergers with fast leading banks to enhance the funds for enabling high quality digital infrastructure.
- Government can think about bringing well-structured norms and regulations for introducing block chain technologies at large scale.

- Connecting with the worldwide needs government support and entering into financial agreements may also result in successful functioning of banks.
- Scalability pertaining to Block chain technologies can be resolved with advanced research to enhance its speed
- Market share prices of the banks can be improved by having tied up with software industries and also certain norms can be reframed to ensure banks market share will be in healthy condition.

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AN EMPIRICAL STUDY OF JOB STRESS AND ITS EFFECTS ON JOB SATISFACTION AND TURNOVER INTENTION AMONG FACULTY MEMBERS AFTER PANDEMIC

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ABSTRACT

Recently, the Covid-19 epidemic had a significant emotional and social effect on the global population. Numerous research studies have demonstrated the detrimental effect on the psychological well-being of the most visible sets or classes, which include kids, academy pupils, and health care employees, who have a greater risk of developing post-traumatic stress disorder, nervousness, unhappiness, and other distressing symptoms. The current study attempted to investigate several psychological employment metrics such as job stress, job satisfaction, and turnover intention of faculty members after the covid epidemic, particularly in Bangalore, India. The random sampling strategy was utilised to choose the sample in this investigation. Primary and secondary data collection approaches are used. Here the structured questionnaire is been prepared and the data from 150 faculty members were collected during the study period and the same has been analyzed through SPSS software using statistical test like reliability test – Cronbach's Alpha, for testing the normality researcher calculated Kolmogorov-Smirnova test, the parametric test like regression analysis is been calculated.

Keywords: Job Stress, Turnover Intention, Job Satisfaction, faculty members Covid19 Pandemic

1.1 INTRODUCTION

In the current scenario, the COVID- pandemic emergency has fundamentally altered the way people live and work. While most of the research studies have attentively concentrated on predominant negative significances, possible positive moves in everyday life have gotten less consideration. Thus, the researcher here trying to examined the genuine and professed general influence of the COVID- pandemic crisis on psychological parameters of jobs like turnover intention, stress of work, and job satisfaction of faculty members after covid pandemic specially in Bangalore city of India.

At the workplace, stress is a well-known event that manifests itself in a variety of ways and has an adverse effect on workers in a variety of work situations. A study of workplace stress in a variety of situations will provide us with a more complete knowledge of the phenomenon and in what way we might alleviate its damaging effects on employees' regular performance, productivity, fulfilment, competence, and responsibility to continue working. Stress may be described in a variety of ways depending on the language used and the organizational context in which it occurs, and it is a multi-dimensional phenomenon. Employment stress is the general name for the body's unpleasant generic reaction to the demands of any job. Essentially, there are two primary stress systems: eustress and distress. Employees that experience eustress are more capable of meeting workplace expectations, which may help them improve the value of their effort. And employees who are distressed will be unable to meet work obligations, which may prompt them to cut the value of their effort.

In a structural setting, occupational stress is classified as work pressure. There are two primary types of job-related stress: physical and mental. Physiological stress has a number of adverse effects on the human body, including hemicrania, headaches, fatigue, and chest discomfort. Physiological stress causes anxiousness, rage, tension, and worry, among other symptoms. If the

worker is unable to handle his or her stress, it will have a detrimental effect on the worker's attitude and conduct. "According to Sager (1994), stress is a significant factor in a variety of job-related behaviours (turnover) and attitudes (job satisfaction, organisational commitment), and Kazmiet al. (2008) stated that among the numerous stressors, the following factors contribute to work stress: a lack of resources, work overload, a lack of harmony and ease with the immediate superior and coworkers."

Historically, research has concentrated on two major dimensions of workplace stress: individual differences, which include locus of control, personality, and self-control, and work-related stressors. The sources of stress inherent in the workplace can be systematically removed or changed by organizations to reduce workplace stress.

Job Stress

Various scholars have characterised stress in a variety of ways. "stress may contribute to mental illness and depression (Eckles, 1987), physical illnesses and chronic diseases such as heart disease, or other issues such as substance addiction (Patton, 1988) and alcoholism (Scanlon, 1986; Patton and Questell, 1988)." Job stress refers to the general unpleasant reaction of the body to work-related stresses. It is not a result of the source of pressure, but rather of how that pressure is perceived. "Job stress, as defined by Richardson & Rothstein (2008), is a situation in which work-related factors impact individuals to the extent that their psychological state deviates from their normal performance." "Montgomery et al. in 1996 identified severe occupational stress as dysfunctional, resulting in a decline in commitment and efficiency."

Job Satisfaction

Job satisfaction has long been a source of fascination for several scholars due to its critical role in an organization's efficiency (Maslow, 1954). "Job satisfaction is a multifaceted and complicated notion that is seen differently by various individuals. It is often discussed in terms of motivation, yet it is completely distinct from that. It's more like to a person's discernment, internal feeling, and emotion, which may be related to things like a person's sense of accomplishment (Mullins, 2005)." "There are two kinds of attitudes about work: positive and negative. (2010) (Abdul, Ismail, & Jaafar)." It is a well accepted statistic that a person has an optimistic attitude about their work if they experience a high degree of job satisfaction, while an individual has an unfavourable attitude toward their job if they experience job unhappiness. "The phrase 'employee attitude' is often used interchangeably with 'work satisfaction' (P. Robbins & Coulter, 2004)."

Turnover Intention:

Employees who choose to join or quit the company will also eventually depart at the moment that the organisation deems most appropriate. "Tett and Meyer et al. (1993) express turnover intention as "a conscious and purposeful desire to quit an organisation." "Glissmeyer et al. (2008) proposed that turnover intention should be referred to as the mediating element between attitudes impacting the intention to quit and leaving an organisation." "Given the research's goal, turnover intention will be defined as the degree to which an organisational member feels he or she will resign at some unspecified point in the future" Hinshaw, Smeltzer, & Atwood, et al. (1987).

1.2 LITERATURE REVIEW

Muhammad, et al. (2021) did study on "The Effect of Job Satisfaction on Employee Turnover Intentions at Bank Al-Habib." The researcher gathered data from 375 workers at Bank Al-Habib, which operates over 835 branches and sub-branch locations around the country and employs over 15,000 people. Salary, Promotion, Work Environment, Supervision, and Task Satisfaction were all examined by the researcher. Additional data analysis was performed using

the partial least squares approach and the Smart PLS programme. Finally, the researcher found that employee happiness had consequence on turnover intention.

Shaikh et al. (2020) published a study titled "Relationship between Job Satisfaction and Intention to Leave: Evidence from Bangladesh." The researcher gathered data from around 355 workers from various industries using a standardised questionnaire in order to elicit unique perspectives on turnover intentions as well as on job satisfaction. The data collected was analyzed using multiple regression and correlation. The researcher discovered a reciprocal association between several characteristics of work satisfaction and plans to leave.

Tarigan & Ariani, et al. (2015) performed a practical study on "Relationships Between Job Satisfaction, Organizational Commitment, and Intention to Leave". The researcher gathered data from 206 workers of industrial companies in the Indonesian cities of Yogyakarta and Surakarta. Additionally, the researcher employed structured questionnaires and structural equation modelling using the AMOS software to quantify four models of the interaction.

Saeed & Farooqi, et al. (2014) do research on "Examining the Relationship between Work-Life Balance, Job Stress, and Job Satisfaction Among University Teachers (A Case of the University of Gujarat)." The researcher gathered data from around 171 university lecturers in Gujarat. The data was analyzed using descriptive statistics, correlations, and regressions. Researchers found that increasing job stress led to decreased job satisfaction, and increasing work-life balance led to increased job satisfaction.

Yücel, et al. (2012) published an article titled "Examining the Relationships Between Job Satisfaction, Organizational Commitment, and Turnover Intention: An Empirical Study." The researcher collected data from 188 employees of a Turkish manufacturing company using a structured questionnaire that included questions about organizational commitment, job satisfaction, and turnover intention. The researcher then analyzed the data using various statistical tests, including structural equation modelling and regression analysis. The researcher stated that high levels of work satisfaction result in increased commitment and decreased desire to leave.

Asikgil & Aydogdu, et al. (2011) published an empirical study titled "An Empirical Study of the Relationship Between Job Satisfaction, Organizational Commitment, and Intention to Leave". To accomplish the research's objective, the researcher gathered data on work satisfaction, organisational commitment, and turnover intention from 100 and 82 employees of organisations in the manufacturing and service sectors, respectively. The researcher used statistical tests such as correlation and regression to determine that the greater the work satisfaction and organisational commitment, the lower the desire to leave.

Naser Hoboubi, Alireza Choobineh, Fatemeh Kamari Ghanavati, Sareh Keshavarzi, and Ali Akbar Hosseini, et. al. (2017) discovered that shift employees are somewhat inefficient in terms of production. This inefficiency is attributed to health concerns, a lack of interpersonal relationships, and sleep problems. Additionally, the research discovered that youthful employees were more motivated throughout their first time of employment than middle-aged workers. Job satisfaction is lowered as a result of repetitive tasks and many constraints in their jobs. Additionally, the study's findings indicate that supervision has an effect on staff productivity.

Mohammad Amiri, Monica Munjial Singh, Sherry Sabbarwal et. al. (2019), examined the consequence of work satisfaction on job satisfaction. The researchers examined numerous forms of stress in the study, including psychological symptoms, bodily symptoms, and behavioural symptoms. Additionally, it shed light on variables that lead to stress, such as workplace discrimination, job instability, an excessive work load, and longer work hours. Additionally, the

research examined the elements that lead to employee work satisfaction. Good working conditions, opportunities for skill development, more responsibility, increased understanding among colleagues, recognition for superior achievement, and increased remuneration.

Pavithra Krishnaraj, et al. (2017), conducted a study on nurses, collecting 100 samples. The study's primary purpose is to elucidate the relationship of work stress and job happiness. It is well established that job overload and disagreement with supervisors lead to employee stress.

Dr G.S Gireesh Kumar & Anu Jossy Joy, et al. (2018). The researcher conducted the survey on 438 software industry personnel. According to his research, four types of workplace stress have an effect on workers' job performance: role uncertainty, income and benefits, fear of obsolescence, and work load.

According to Zoha A Merchant and Shailaja Shastri et al. (2013), the research was conducted on faculty members who work in engineering colleges. Independent t tests and one-way ANOVA were used to determine the link between the variables. The research examined three dependent variables: work satisfaction, stress, and coping mechanisms. Employees are content with their jobs, and there are no significant differences in terms of demographic features. However, one aspect has an effect on occupational stress, such as the employees' classification. Stress coping mechanisms also have an effect on occupational stress, which is particularly true for demographic variables.

According to Dr Anuj Sheopuri and Anita Sheopuri's et al. (2015) research, faculty members are dissatisfied, and there are variances in the amount of stress across faculty members. Stress is caused by a variety of factors, including an inadequate wage, a lack of available leave, changes in the work schedule, and a lack of suitable acknowledgment.

According to M Vasan's et al. (2018) research, occupational stress affects employee happiness. It is discovered that the following elements contribute to employee stress: the nature of the job, interpersonal relationships at work, and a lack of career growth opportunities.

According to Huynh Thi Thu Suong & To Anh Tho, et al. (2021), emotional intelligence and work happiness have a favourable effect on an employee's creativity. Work stress has no bearing on job happiness.

Dr Smritikana Mitra Ghosh, et al. (2015), conducted a research on private and public school teachers and found that both groups reported similar levels of work satisfaction. Further, gender does not affect work satisfaction.

Prathana Dodia and Neha Parashar, et al. (2020), conducted a research comparing day and night shift personnel. The researcher conducted his investigation using the occupational stress index, the General Health Questionnaire, and the Jos satisfaction scale. Those who work the night shift experience more occupational stress and psychological suffering than employees who work the day shift. Employees on the day shift had a higher level of satisfaction with Jos.

According to Shenbhagavadivu, et al. (2017), there is a favourable association between occupational stress and work satisfaction among employees. The researcher employed a sample size of ninety workers and an occupational stress scale and a job satisfaction scale as instruments in the investigation.

1.3 RESEARCH METHODOLOGY

After going through from different articles, journals, research papers etc researcher found that no research is been conducted considering the said topic. In the present research researcher tried analyze different psychological parameters of jobs like Job Satisfaction, Job stress, and Turnover Intention of faculty members after covid pandemic specially in Bangalore city of India.

1.3.1 Nature of Research and Sampling Techniques:

The study is descriptive in nature since here researcher is trying to describe the psychological situation of faculty members after covid pandemic in Bangalore city of India. Further in the research faculty members of from Bangalore city of India are been considered and the random sampling technique were used for the selection of sample study.

1.3.2 Data Collection:

The data collecting is done through primary as well as secondary methods. Here the structured questionnaire is been prepared and the data from 150 faculty members were collected during the study period. Researcher tried to measure the Job stress, Turnover intention and Job satisfaction among the faculty members after covid pandemic.

1.3.3 Measurement and Scale:

The present research's measurement and scales were derived from earlier studies and literatures; there are essentially three factors. The first is job stress, which is comprised of four things derived from (Beehr et al. 2001). The study's second variable is job satisfaction, which is comprised of five items drawn from (Fairbrother and Warm, 2003; Dua, 1994; Sullivan and Bhagat, 1992; Smith et al. 1992). The last variable, Turnover intention, is derived from Bluedorn (1982).

1.3.4 Techniques and Tools for Data Analysis:

In order to study the data researcher used SPSS software. To justify the topic and objective of the research researcher had calculated statistical test like reliability test – Cronbach's Alpha, for testing the normality researcher calculated Kolmogorov-Smirnova test, the parametric test like regression analysis is been calculated.

1.3.5 Objectives of the Research:

To scrutinize the Job stress among faculty members after Covid Pandemic.

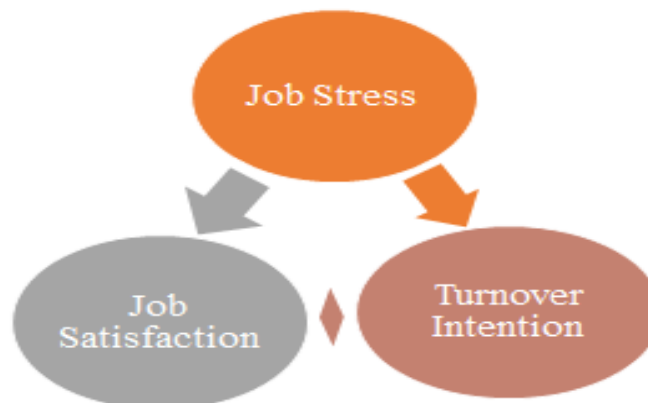
To scrutinize the Job Satisfaction among faculty members after Covid Pandemic.

To scrutinize the Turnover Intention among faculty members after Covid Pandemic.

1.3.6 Hypothesis

H₀: Job stress had no discernible effect on job satisfaction or turnover intention among faculty members during the Covid Pandemic.

H_a: Job stress has a substantial effect on job satisfaction and turnover intention among faculty members during the Covid Pandemic.

1.3.7 Variables:

1.4 DATA ANALYSIS RESULT AND EXPLANATION:**Table: 1.4.1** Demographic profile of the respondents

Demographic factor	Factors	Frequency	Percentage
Gender	Male	75	50
	Female	75	50
	Total	150	100
Age	Below 18	29	19
	18-29	34	23
	30-49	27	18
	50-59	28	19
	60 and above	32	21
	Total	150	100
Designation	Principal	27	18
	Professor	26	17
	Associate Professor	19	13
	Assistant Professor	29	19
	Lecturer	23	15
	Teacher	26	17
	Total	150	100
Domain	Commerce	40	27
	Management	40	27
	Science	35	23
	Arts	35	23
	Total	150	100

Interpretation

The above table represents the demographic profile of the respondents. Here in this research researcher collected data from 150 faculty members from Bangalore city of India to analyze the job satisfaction, turnover intention and Job stress among them after covid pandemic. data is been collected from different faculty members of diverse age group, working at different domain and holding different designation the details of the same is given above.

Table: 1.4.2 Test the reliability of Cronbach's Alpha.

Statistics on Reliability	
Cronbach's Alpha	# Items
0.956	15

1.4.1 Interpretation:

Cronbach's alpha is used to calculate the inner consistency of gathered data. This indicates how closely linked a collection of items is. The alpha coefficient for the fifteen items is 0.956, indicating that there is a pretty high level of internal consistency.

Table: 1.4.2 Kolmogorov-Smirnova Statistical Test

Tests of Normality			
	Kolmogorov-Smirnova		
	Statistic	df	Sig.
How often have you experienced anxiety and stress on the job?	0.19	150	0.00
How often have you found that you cannot cope with all the things that you had to do?	0.22	150	0.00
How often have you been enraged by events beyond your control?	0.22	150	0.00

How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	0.21	150	0.00
My base wage is enough for my everyday working hours and task.	0.17	150	0.00
I am content with my prospects for wage rises.	0.17	150	0.00
My work is recognised.	0.17	150	0.00
It is feasible to advance quickly in my career.	0.17	150	0.00
I feel that people who do well on the job have a reasonable possibility of promotion.	0.16	150	0.00
I often consider quitting.	0.33	150	0.00
I'm rather certain that I'll be actively looking for work next year	0.17	150	0.00
I'm likely to hunt for a new work during the next year.	0.16	150	0.00
I often consider shifting jobs.	0.19	150	0.00

1.4.2 Interpretation:

The above table represents the result of normality test, Kolmogorov test used the test the normality of the data, here it can be observed that p – Value calculated is 0.00 which is less than 0.05 percent of alpha level hence null hypothesis subjected to be rejected hence collected data appear to be normally distributed.

Table: 1.4.3 Regression Analysis: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	0.518	0.268	0.248	1.132	13.259	0.000
2	0.38	0.144	0.121	1.379	6.105	0.000
3	0.351	0.123	0.099	1.4	5.078	0.001
4	0.308	0.095	0.07	1.426	3.788	0.006
5	0.317	0.1	0.076	1.409	4.045	0.004
6	0.617	0.381	0.364	1.188	22.278	0.000
7	0.859	0.739	0.731	0.719	102.452	0.000
8	0.912	0.833	0.828	0.588	180.313	0.000
9	0.863	0.744	0.737	0.746	105.504	0.000

1.4.3 Interpretation:

The following table summarises the regression models; as can be seen, the R square for models 2nd, 3rd, 4th, and 5th is larger than 75, indicating that the regression models are fit and shows a strong connection between the Job Stress which is an independent variable and Job Satisfaction which is a dependent variable. While in the seventh, eighth, and ninth grades, the R square is between 0.50 and 0.57, indicating a moderate degree of correlation between the independent variable ie Job Stress and the dependent variable ie Turnover Intention. And in case of first and sixth variables, the R square is less than 0.31, indicating that the average correlation between the independent variable and the dependent variable is less than 0.31. which are Job Satisfaction and Turnover Intention respectively.

A P-value of 0.00 indicates that the null hypothesis cannot be accepted, which is less than 0.05 alpha. As a result, the null hypothesis will be accepted, indicating that stress is a significant predictor of job satisfaction and turnover intentions.

Table: 1.4.4 Regression Analysis: Coefficients

Model		t	Sig.
My base wage is enough for my everyday working hours and task.	(Constant)	19.165	0.000
	How often have you experienced anxiety and stress on the job?	1.034	0.303
	How often have you found that you cannot cope with all the things that you had to do?	-0.294	0.769
	How often have you been enraged by events beyond your control?	-0.143	0.886
	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	-1.020	0.310
I am content with my prospects for wage rises.	(Constant)	11.942	0.000
	How often have you experienced anxiety and stress on the job?	4.206	0.000
	How often have you found that you cannot cope with all the things that you had to do?	0.180	0.858
	How often have you been enraged by events beyond your control?	-0.829	0.408
	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	-0.679	0.498
The work I do is appreciated.	(Constant)	12.929	0.000
	How often have you experienced anxiety and stress on the job?	1.661	0.099
	How often have you found that you cannot cope with all the things that you had to do?	0.285	0.776
	How often have you been enraged by events beyond your control?	-0.955	0.341
	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	1.879	0.062
It is feasible to advance quickly in my career.	(Constant)	12.322	0.000
	How often have you experienced anxiety and stress on the job?	2.495	0.014
	How often have you found that you cannot cope with all the things that you had to do?	0.428	0.669
	How often have you been enraged by events beyond your control?	-0.987	0.325

	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	0.299	0.765
I feel that people who do well on the job have a reasonable possibility of promotion.	(Constant)	12.331	0.000
	How often have you experienced anxiety and stress on the job?	3.235	0.002
	How often have you found that you cannot cope with all the things that you had to do?	0.555	0.579
	How often have you been enraged by events beyond your control?	-1.052	0.295
	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	-0.941	0.348
I often consider quitting.	(Constant)	1.300	0.196
	How often have you experienced anxiety and stress on the job?	-0.868	0.387
	How often have you found that you cannot cope with all the things that you had to do?	0.031	0.975
	How often have you been enraged by events beyond your control?	0.840	0.402
	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	-1.384	0.168
I'm rather certain that I'll be actively looking for work next year.	(Constant)	3.997	0.000
	How often have you experienced anxiety and stress on the job?	2.169	0.032
	How often have you found that you cannot cope with all the things that you had to do?	0.372	0.710
	How often have you been enraged by events beyond your control?	0.902	0.369
	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	-3.132	0.002
I'm likely to hunt for a new work during the next year.	(Constant)	2.398	0.018
	How often have you experienced anxiety and stress on the job?	2.635	0.009
	How often have you found that you cannot cope with all the things that you	0.452	0.652

	had to do?		
	How often have you been enraged by events beyond your control?	1.275	0.204
	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	-4.135	0.000
I often consider shifting jobs.	(Constant)	3.084	0.002
	How often have you experienced anxiety and stress on the job?	2.085	0.039
	How often have you found that you cannot cope with all the things that you had to do?	0.358	0.721
	How often have you been enraged by events beyond your control?	0.908	0.365
	How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?	-2.834	0.005

1.4.4 Interpretation:

The above table summarizes the regression analysis. A lower p-value indicates that the null hypothesis will not be accepted. P value 0.05 indicates that the null hypothesis will not be accepted. In other words, an interpreter with a lower p-value is more likely to be an expressive count for the regression model, since changes in the independent variable (predictor's value) are associated to changes in the dependent variable (response variable). As can be seen from the above, The P – Value for Job Stress (How often have you experienced anxiety and stress on the job? How often have you found that you cannot cope with all the things that you had to do? How often have you been enraged by events beyond your control? How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?) and Job Satisfaction (My base wage is enough for my everyday working hours and task.) are greater than 0.05, the Null hypothesis is accepted.

The P – Value of Job Stress (How often have you found that you cannot cope with all the things that you had to do? How often have you been enraged by events beyond your control? How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?) When Job Satisfaction (My base wage is enough for my everyday working hours and task.) are greater than 0.05, the null hypothesis is accepted. While the P-Values for Job Stress (How often have you experienced anxiety and stress on the job?) and Job Satisfaction (I am content with my prospects for wage rises.) are less than 0.05, this indicates that the null hypothesis will not be accepted.

The P-Value of Job Stress (How often have you experienced anxiety and stress on the job?, How often have you found that you cannot cope with all the things that you had to do? How often have you been enraged by events beyond your control? How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?) as well as Job Satisfaction (My work is recognized.) If greater than 0.05, the null hypothesis is accepted.

The P – Value for Job Stress (How often have you found that you cannot cope with all the things that you had to do? How often have you been enraged by events beyond your control? And How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?) & Job Satisfaction (It is feasible to advance quickly in my career.) If

greater than 0.05, the null hypothesis is accepted. While the P – Value for Job Tension (How often have you experienced anxiety and stress on the job?) and Career Satisfaction (It is feasible to advance quickly in my career.) are less than 0.05, indicating that the null hypothesis will be rejected.

The P – Value for Job Stress (How often have you found that you cannot cope with all the things that you had to do? How often have you been enraged by events beyond your control? And How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?) & Job Satisfaction (I feel that people who do well on the job have a reasonable possibility of promotion.). If greater than 0.05, the null hypothesis is accepted. While the P – Value for Job Tension (How often have you experienced anxiety and stress on the job?) and Job Satisfaction (It is feasible to advance quickly in my career.) are less than 0.05, indicating that the null hypothesis will not be accepted.

The P – Value of Job Stress (How often have you experienced anxiety and stress on the job? How often have you found that you cannot cope with all the things that you had to do? How often have you been enraged by events beyond your control? How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?) Turnover intention (I often consider quitting.) is greater than 0.05, indicating endorsement of the null hypothesis.

The P-value for job stress (How often have you found that you cannot cope with all the things that you had to do? How often have you been enraged by events beyond your control?) and Turnover intention (I'm rather certain that I'll be actively looking for work next year.) are greater than 0.05, implying that the null hypothesis is accepted, while Job stress (How often have you experienced anxiety and stress on the job?, How often have you felt as though your troubles were escalating to the point that you were unable to overcome them?) is greater than 0.05. and Turnover intention (I'm rather certain that I'll be actively looking for work next year.) are less than 0.05, indicating that the null hypothesis will be rejected.

The P – Value for Job Stress (How often have you experienced anxiety and stress on the job? How often have you found that you cannot cope with all the things that you had to do?) and Turnover intention (I'm likely to hunt for a new work during the next year.) are less than 0.05, implying that the null hypothesis is accepted, whereas the P – value of Job stress (How often have you found that you cannot cope with all the things that you had to do?) is greater than 0.05, implying that the null hypothesis is rejected. (How often have you been enraged by events beyond your control?) and Turnover Intention is more than 0.05, indicating that the null hypothesis will not be accepted.

The P – value for work stress (How often have you experienced anxiety and stress on the job? How often have you found that you cannot cope with all the things that you had to do?) and Turnover Intention (I often consider shifting jobs.) are less than 0.05, the null hypothesis is accepted, whereas the P – Value of Job Stress (How often have you found that you cannot cope with all the things that you had to do? How often have you been enraged by events beyond your control?) is greater than 0.05. and Turnover Intention (I often consider shifting jobs.) are more than 0.05, indicating that the null hypothesis will not be accepted.

1.5 DISCUSSION

The research study's primary purpose is to determine the influence of job stress on the workplace and to determine how job stress affects job satisfaction and turnover intention. The researcher explored three psychological factors in this study: Job Stress, Job Satisfaction, and Turnover Intention. The research and prior literature indicate the existence of a link between job stress, job satisfaction, and turnover intention. Cronbach Alpha indicated that the data were

trustworthy, while the normality test indicated that the data were normally distributed. The researcher attempted to analyse the impact of job stress on Job Satisfaction and Turnover Intention among faculty members following the Covid Pandemic using regression statistics. The results indicated that certain aspects of job stress have an effect on Job Satisfaction and Turnover Intention among faculty members following the Covid Pandemic, while others have no effect. This suggests that following the Covid Pandemic, there will be a considerable shift in Job Satisfaction and Turnover Intention among faculty members as a result of changes in some of the job stress elements. When workers are satisfied with their jobs, they perform better on their tasks, have a greater desire to remain with the firm, and the converse is true during difficult periods.

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AN EMPIRICAL SURVEY ON INVESTMENT IN SHARES AND MUTUAL FUNDS BY MODERN DAY INVESTORS

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ABSTRACT

Identify the Needs and Verify your Earnings and Save for Tomorrow, should be followed by all. In this current scenario life without investing is like life without goals. Financial planning has become a prerequisite for a hassle-free retirement and proper management of finances. Even investing a small portion of money regularly can receive considerable rewards over the long term. For that one need to decide about "how to invest", "how much to invest" and "where to invest it". This paper focuses on the preference of the genders for two most popular and high return generating investment options- shares and mutual funds.

INTRODUCTION

The consumption and investment patterns of the Indian society have changed due to availability of multiple competing alternatives that have resulted from liberalization, privatization and globalization of the economy. People have the choice to distribute their limited income among unlimited equally attractive consumption and investment options. With decrease in interest rates and consolidation of the Indian stock market, the investors have taken more interest in shares and mutual funds to maximize their returns as the cumulative returns from these investments have bettered the inflation rates over a period of time. The age-old pattern of investment in fixed deposits/ PPF/ gold etc. had their own advantages as they were time tested investment avenues of family members but many investors' families did not have idea of mutual funds or shares. So, investment in them required greater research work, accurate understanding of every element of investment, regular trend study, regular follow-ups of credit worthiness of the company where one is interested to invest in. Mutual funds are preferred by investors who lack the knowledge, skill or expertise of direct stock market investment or wish to invest in small amounts without conducting much research on stock market. Shares, on the other hand, are preferred by informed investors looking for higher returns.

Many variables have a considerable impact on the choice of investment avenues by individuals. The most notable ones among them are financial status, disposable income, available liquidity, financial aspirations, investment knowledge and opportunity, personal obligations, pressure from various influencers etc. Literature has shown that among the most prominent factors influencing the choice of investment avenues, gender plays an important role. Since Indian society usually follows the principles of patriarchy, the gender role orientations internalized through social observations have impacted every activity performed by individuals either consciously or unconsciously. When faced with an investment opportunity, men and women usually react differently based on their preconceived notions. Men and women are influenced differently by the risk-return component in an investment and mitigation of risk follows the 'Markowitz portfolio diversification rule' which states that investments should be done among multiple alternatives to compensate the high risk in one alternative by higher return in the other. Under this backdrop, the present study tries to analyze the investment behavior of men and women towards investment in stock market and mutual funds.

Mutual Funds

Powell and Ansic (1997) and Ammon and Bernasek (1998) opined similarly regarding stronger financial decision making of men compared to women as women were risk averse. Singh(2011) added to the study and highlighted the association of gender and their attitude towards mutual

funds. Singh (2011) highlighted that majority of the men have higher positive attitude towards mutual funds compared to women and due to high risk content of the investment women tends to be a conservative investor of mutual funds. Rehan et al. (2018) highlighted that gender does not have significant association with awareness of investment in mutual funds. Davar and Gill(2007) added with regard to mutual funds female investors tend to display lower confidence in their investment decisions thereby have lower satisfaction levels compared to men. Lewellen et al.(1977) added that men invest more time and money in security analysis, depend less on brokers ,make numerous transactions, believes that returns are highly predictable and speculate higher possible returns compared to women. Chaudhary(2013) added male investors preferred diversification and invested in different avenues compared to women and men and women had consensual satisfaction in money market mutual funds, indexed mutual funds and government bonds. Martenson (2008) added that women belonged to the disadvantaged group and had lower confidence towards investment in mutual funds which actually leave them behind with weaker retirement plans. Dwyer, Gilkeson and List (2002) women take less risk in their recent, riskiest, largest mutual fund investments decisions than men. Difference in risk taking among gender was significantly attenuated by them by inclusion of financial investment knowledge control variable in the regression model.. Bhushan and Medury (2013) brought another point into light that although men invested more in mutual funds than women but satisfaction from investment into it was higher among women over men. Reddy and Sudhakar (2016) that majority of investors who invested in mutual funds were men with high income level in comparison to women. Mane (2016) in his research highlighted that most of the people were hesitant in going for new age investments like mutual funds and prefers less riskier investments. Pasalkar(2015) added that investors needs to be more educated about mutual funds and equity investments were more favoured. Bhutada(2015) added that election result, crisis, inflation, budget and many big events affects mutual funds schemes performance. Sharma and Agarwal(2015) said that investors perception were demographic profile dependent and added that liquidity, flexibility, tax savings, service quality and transparency etc were the factors which have higher impact on investors perception. Mishra(2015) added that mutual funds were looked upon by investors as transparent and low cost investment vehicle were return and future respective were important factors.

Shares

Barber and Odean (1999) shared similar opinion with Bernasek and Bajtelsmit (2002) highlighting that how lower share of household income ,lack of confidence actually affected the decision making ability of women investors in stock market and somehow prevented them from trading in stock market. Fusilier and Mueller(2004) along with Desigan et al.(2006) highlighted that lower educational levels inculcates fear in their mind regarding the thought of facing difficulties in completing the formalities thereby not trusting their brokers which ultimately pulls them back from investing in securities that belong to high risk categories. Mishra(2007) highlighted that high risk involvement in stock market investments pulled back women from investing in stock market. Blease et al. (2008) and Lusardi et al.(2009) opined similarly that limited access to early stage capital, ignorance about basic financial concepts became the primary reason for poor borrowing ability, weaker retirement planning of women compared to men. Nath et al.(2009) opined that critical investment related information had better accessibility for men compared to women which actually contributed to weak decision making ability of women. Kathirvel and Mekala (2010) opined that lack of knowledge about different investment options available in the market made hindered women from making better investment decisions while Jacobsen et al.(2010) suggested that lack of optimism resulted into low stock holding among women.. Almenberg and Dreber (2012) opined that lack of financial literacy and tendency of risk aversion led to low stock market participation among women. Ashoka and Keihani (2020) and Kaur and Vora(2012) highlighted that if men and women

modify their investment pattern and channelize their savings in the stock market then that will change the whole nation at a large highlighting the fact of participation of women to enhance and contribute towards increasing the economic potential of the country. Long sustained inequalities has drawn back women from participating in stock market which actually make them ignore two most important factors like risk and return while making investment decisions. In their research they found that major portion of stock market investment are occupied by men followed by women. Women participation although has increased rapidly in the past few decades where women are equally employed and has knowledge of various spheres of business and finance. But inspite of the fact of women being big time player in the corporate sectors they still are the disadvantaged group when it comes to investment in stock market due to lack of sufficient information, limited participants in the securities market the main reason being gender discrimination. While Ashoka and Keihani(2020) highlighted that men and women were significantly independent in making decision of investing in shares. Berggren and Gonzalez(2010) majority of whom were high risk gambler, eager to take risk after research, and few were careful and were influenced by friends, relatives and family members in investment decision making. The majority of investors preferred investment in jewels, insurance, land, banking while only 4% had a good understanding about the capital market. Proportion of never investing in financial market among women were far more than that of men. 64.4% of men were willing to invest in stock markets compared to 17.1% of women. 32.2% of men invested in mutual funds compared to 31.7% of men and 14.6% of women preferred to save in bank account compared to 4.9% of men. Majority of investors preferred medium term investment schemes of upto 5 years while many preferred long term investments. Majority of women invests for child marriage, education, house purchase and very few for retirement purpose. Sharma and Vasakarla(2013), highlighted that a regularity of investment in money financial market has been observed in majority of men while women proportion of never investing in financial money market is much higher than men. Majority of men were found to be risk lover and willing to take calculated risk compared to women who also were risk neutral, risk averse and some preferred to take calculated risk as well. Majority of men preferred to invest more in mutual funds and stock markets while majority of women preferred to invest more in fixed deposits and savings bank account.

RESEARCH OBJECTIVES

The present study aims to address the following objectives:

- 1) To identify the objectives of investment of investors.
- 2) To identify the preferences of investment in shares and mutual funds among genders.
- 3) To identify any significant pattern of men and women for investment in shares and mutual funds.

Based on the above objectives, 3 hypotheses are framed to test each of them. They are:

H₀₁: There is no significant difference between the genders and their primary objectives and preferred avenues of investment.

H₀₂: There is no significant difference between the genders and their preference for mutual funds as an investment avenue.

H₀₃: There is no significant difference between the genders and their surety about return from shares.

DATA AND METHODOLOGY

Based on objectives of the study, a closed ended questionnaire containing questions relevant to the research problem was designed and a representative sample of 90 men and 60 women was

drawn through purposive sampling technique. The sample was drawn in such a manner that men and women of different age categories and financial status came under the purview of study. Confidentiality of personal data was ensured to the respondents. The data thus obtained were tabulated in Microsoft Excel and analyzed. Three aspects of investment were chosen for this study namely, the investment objectives of the investors; preferences of men and women towards investments in shares and mutual funds; and effects of different influencing factors on investments in shares and mutual funds. Each issue covered under these heads was independently tested through Pearson's Chi-Square test among the two observed groups (namely men and women) and meaningful inferences were drawn.

ANALYSIS AND INTERPRETATION

Demographic profile of the sample (Women=W, Men=M)

Age	20-30 years	20M,15W
	30-40 years	35M,28W
	40-50 years	24M,10W
	50-60 years	12M,6W
Monthly income	Below Rs 20000	14M,16W
	Rs 20000-40000	29M,20W
	Rs 40000-60000	32M,24W
	Above Rs 60000	9M, 6W
Marital Status	Single	25M, 22W
	Widow	3W
	Married	40M,50W
	Separated	6M,4W
Number of Dependents	None	25M, 22W
	One	35M,30W
	Two	22M,16W
	Three or more	None
Savings as a percentage of income	Below 10%	14M,16W
	10-20%	25M,30W
	20-40%	30M,20W
	Above 40%	10M,5W

Source: Primary survey

1. What is primarily your objective for investment?

	Men	Women	Total
Retirement	25 (27.78%)	25 (41.67%)	50 (33.33%)
Contingencies	15 (16.67%)	15 (25%)	30 (20%)
Child's education	28 (31.11%)	20 (33.33%)	48 (32%)
Tax benefits	15 (18.89%)	0	15 (10%)
Purchase of asset	7 (7.78%)	0	7 (4.67%)
Total	90	60	150

Comparing the primarily objective for investment of the investors based on gender, it is found that majority of women investors (41.67%) were investing for retirement benefits as compared to 27.78% of the men investors. Child's education was considered important by 31.11% of men as compared to 33.33% of women. Among men, 18.89% invested for tax benefits and 7.78% invested for purchase of assets whereas, no woman considered these as important objectives for investment. There is a statistically significant difference $\{\chi^2(4) = 18.056\}$ between men and women regarding their objectives of investment.

2. Taking which of these following considerations into account, do you invest your money?

	Men	Women	Total
Safety	20 (22.22%)	15 (25%)	35 (23.33%)
Liquidity	20 (22.22%)	8 (13.33%)	20 (13.33%)
Reliability	10 (11.11%)	12 (20%)	30 (20%)
Return	40 (44.45%)	25 (41.67%)	65 (43.34%)
Total	90	60	150

It is found that 44.45% of sample men investors invest their money for returns as compared to 41.67% of female investors. Safety and liquidity are considered important by 22.22% of men investors whereas more women investors (25%) prefer safety over liquidity (13.33%). Comparing the primary considerations of investment of the investors, it is seen that there is a statistically insignificant difference $\{\chi^2(3) = 3.6464\}$ between men and women.

3. What type of investor are you?

	Men	Women	Total
Conservative	15 (16.67%)	15 (25%)	30 (20%)
Moderate	40 (44.44%)	20 (33.33%)	60 (40%)
Aggressive	35 (38.89%)	25 (41.67%)	60 (40%)
Total	90	60	150

It is found that nearly 44.44% of the sample men investors were moderate as compared to 33.33% of women investors. Among the women, it is found that 41.67% of the investors were aggressive (who were high skilled professionals working in IT and corporate sectors); as compared 38.89% of men. 25% of women and 16.67% of men were conservative investors. Comparing the type of investors it is found that there exists a statistically insignificant difference $\{\chi^2(2) = 2.4306\}$ between the sample men and women.

4. Among the following alternatives, which is your most preferred investment avenue?

	Men	Women	Total
Pension and PF	15 (16.67%)	13 (21.67%)	28 (18.67%)
Bank deposit	15 (16.67%)	10 (16.67%)	25 (16.67%)
Mutual funds	10 (11.11%)	8 (13.33%)	18 (12%)
Life insurance	20 (22.22%)	16 (26.67%)	36 (24%)
Postal savings	15 (16.67%)	6 (10%)	21 (14%)
Real estate	15 (16.66%)	0	15 (10%)
Gold	0	7 (11.66%)	7 (4.66%)
Total	90	60	150

From the above chart it is found that the genders have difference in opinion regarding their most preferred investment avenue. Comparing the most preferred investment avenues, it is observed that there exists a statistically significant difference $\{\chi^2(8) = 22.569\}$ between men and women.

Table 1: Taking the above four observations together: (S*: Significant; NS: Not Significant)

Sl. No.	Questions	Chi-square value	Degree of freedom	Asymptotic Significance
1	Primarily objective for investment	18.056 (S*)	4	0.001
2	Consideration for investment	3.646 (NS)	3	0.302
3	Type of investor	2.430 (NS)	2	0.296
4	Preferred investment avenue	22.569 (S*)	8	0.001

H₀1: There is no significant relationship between genders and their primary objectives or preferred avenues of investment.

Result: Comparing the above results of questions 1 to 4, it is clear that 2 observations demonstrate a very significant difference between genders and their primary objectives or preferred avenues of investment while the other two are insignificant. So it cannot be conclusively stated that there is no significant difference between genders and their primary objectives or preferred avenues of investment.

5. Do you invest in mutual funds?

	Men	Women	Total
Yes	75 (83.33%)	35 (58.33%)	110 (73.33%)
No	15 (16.67%)	25 (41.67%)	40 (26.67%)
Total	90	60	150

83.33% of men investors invest in mutual funds as compared to 58.33% of women investors. Comparing the genders and their selection of mutual funds as a matter of investment, a significant difference $\{\chi^2(1) = 11.5057\}$ is found to exist between the two.

6. What is your probable tenure of investment while investing in mutual funds?

	Men	Women	Total
Less than 3 years	40 (44.45%)	24 (40%)	64 (42.67%)
3-5 years	25 (27.78%)	11 (18.33%)	36 (24%)
5-10 years	10 (11.11%)	0	10 (11.11%)
above 10	0	0	0
N/A	15 (16.66%)	25 (41.67%)	40 (26.67%)
Total	90	60	150

44.45% of the sample men prefer investment in mutual funds for less than 3 years as compared to 40% of women investors. 11.11% of men investors invest for 5-10 years while none of the women investors invest for 5-10 years in mutual funds. Comparing the genders and their preferred duration for investment, a significant difference $\{\chi^2(8) = 16.609\}$ is found between the two.

7. How much money do you invest every month in mutual funds?

	Men	Women	Total
Nil	15 (16.67%)	25 (41.67%)	40 (26.67%)
Below 5000	30 (33.33%)	10 (16.67%)	40 (26.67%)
5000-10000	17 (18.89%)	10 (16.67%)	27 (18%)
10000-20000	16 (17.78%)	8 (13.33%)	24 (16%)
20000 above	12 (13.33%)	7 (11.67%)	19 (12.66%)
Total	90	60	150

33.33% of male investors invest between Rs. 5000-10000 in mutual funds compared to 16.67% of women investors. Comparing the association of gender and amount of investment in mutual funds, a significant difference $\{\chi^2(4) = 12.8097\}$ is found between the two.

8. What kind of return do you expect from your investments in mutual funds?

	Men	Women	Total
Low return	13 (14.44%)	10 (16.67%)	23 (15.33%)
Moderate return	15 (16.67%)	15 (25%)	30 (20%)
High return	29 (32.22%)	10 (16.67%)	39 (25.33%)
Very high return	18 (20%)	0	18 (12%)
Not applicable	15 (16.67%)	25 (41.66%)	40 (26.67%)
Total	90	60	150

32.22% of men investors expect high return compared to 16.67% of the women investors. On the other hand none of the women investors expects very high return compared to 20% of the men investors. Comparing the association of gender and expected return from mutual funds a significant difference $\{\chi^2(4) = 26.098\}$ is observed between the two.

9. Which of the following mediums primarily influenced you to opt for mutual funds?

	Men	Women	Total
Brokers	10 (11.11%)	7 (11.67%)	17 (11.33%)
Relatives	15 (16.67%)	17 (28.33%)	32 (21.33%)
Advertisement	12 (13.33%)	0	12 (8%)
Prospectus	5 (5.56%)	0	5 (3.33%)
Magazine	7 (7.78%)	0	7 (4.67%)
Annual report	12 (13.33%)	0	12 (8%)
Newspapers	14 (15.56%)	11 (18.33%)	25 (16.67%)
Not applicable	15 (16.67%)	25 (41.67%)	40 (26.67%)
Total	90	60	150

16.67% of men and 28.33% of women investors were influenced by their relatives for investments in mutual funds. While magazines, prospectus, advertisement, annual report became influencers of investment for some men investors; while these mediums failed to influence any woman investor. Comparing the association of gender and the medium of influence for investment in mutual funds, a significant difference $\{\chi^2(7) = 34.911\}$ is found between the two.

10. How do you invest in mutual funds?

	Men	Women	Total
Directly	20 (22.22%)	10 (16.66%)	30 (20%)
Broker/agent	55 (61.11%)	25 (41.67%)	80 (53.33%)
Not applicable	15 (16.67%)	25 (41.67%)	40 (26.67%)
Total	90	60	150

61.11% of men investors invest through brokers as compared to 41.67% of women investors. Comparing the association of gender and their method of investment in mutual funds a significant difference $\{\chi^2(4) = 12.847\}$ is found between the two.

11. Which type of mutual fund scheme do you primarily invest in?

	Men	Women	Total
Equity fund	26 (28.89%)	10 (16.67%)	36 (24%)
Money market fund	25 (27.78%)	10 (16.67%)	35 (23.33%)
Index fund	0	5(8.33%)	5(3.33%)
Balanced fund	0	0	0
Income fund	0	0	0
Liquid fund	14 (15.56%)	10 (16.67%)	24 (16%)
Growth fund	10 (11.11%)	0	10 (6.67%)
Tax saving fund	0	0	0
Special fund	0	0	0
Not applicable	15 (16.67%)	25 (41.66%)	40 (26.67%)
Total	90	60	150

28.89% of men investors invest in equity fund compared to 16.67% of the women investors. 27.78% of men investors invest in money market mutual fund as compared to 16.67% of women investors. Comparing the association of gender and type of mutual fund scheme a significant difference $\{\chi^2(9) = 28.644\}$ is found between the two.

12. What is the frequency of your investment in mutual funds?

	Men	Women	Total
Monthly	25 (27.77%)	18 (30%)	43 (28.67%)
Quarterly	27 (30%)	12 (20%)	39 (26%)
Half-yearly	16 (17.77%)	5 (8.33%)	21 (14%)
Yearly	7 (7.77%)	0	7 (4.67%)
Not applicable	15 (16.67%)	25 (41.67%)	40 (26.66%)
Total	90	60	150

30% of women investors invest monthly in mutual funds compared to 27.77% of men investors. On the other hand 30% of men investors invest quarterly in mutual funds compared to 20% of women investors. Comparing the association of gender and frequency of investment a significant difference $\{\chi^2(4) = 17.16\}$ is observed between the two.

13. Which of the following problems did you encounter while investing in mutual funds?

	Men	Women	Total
Unclear ideas	24 (26.67%)	10 (16.67%)	34 (22.67%)
Incapable agents	18 (20%)	9 (15%)	27 (18%)
Lack of information	33 (36.67%)	16 (26.67%)	49 (32.67%)
Lack of initiative by industry	0	0	0
Not applicable	15 (16.67%)	25 (41.67%)	40 (26.67%)
Total	90	60	150

36.67% of men investors suffer from problems of lack of information while they invest in mutual funds compared to 26.67% of women investors. While 26.67% of men investors suffer from unclear ideas compared to 16.67% of women investors. Comparing the association between the genders and problems that they face while investing in mutual funds, a significant difference $\{\chi^2(4) = 11.628\}$ is found between the two.

Table 2: Taking the above nine observations together: (S*: Significant; NS: Not Significant)

Sl. No.	Questions	Chi-square value	Degree of freedom	Asymptotic Significance
5	Do you invest in mutual funds	16.608 (S*)	4	0.001
6	Preferred duration for investing in shares and mutual funds	11.505 (S*)	1	0.0007
7	Preferred amount of investment in mutual funds monthly.	12.809 (S*)	4	0.012
8	Expected quality of return from mutual funds investment	26.097 (S*)	4	0.000
9	Influencing medium for opting mutual funds	34.910 (S*)	7	0.000
10	Method of investing in mutual funds	11.545 (S*)	4	0.003
11	Preferred type of mutual fund scheme	26.777 (S*)	9	0.000
12	Frequency of investment in mutual funds	17.160 (S*)	4	0.002
13	Problems faced while investing in mutual funds (if any)	11.627 (S*)	4	0.008

H₀2: There is no significant difference between the genders and their preference for mutual funds as an investment avenue.

Result: Comparing the results of chi-square test from question number 5-13, a significant association has been found among all the results computed above thereby rejecting the null hypothesis and accepting the alternate i.e. there exists a significant difference between the genders and their preference for mutual funds as an investment avenue.

14. Do you invest in stocks/ share market?

	Men	Women	Total
Yes	75 (83.33%)	35 (58.33%)	110 (73.33%)
No	15 (16.67%)	25 (41.66%)	40 (26.67%)
Total	90	60	150

83.33% of men prefer investment in shares as compared to 58.33% of women. Comparing the association of gender and investment in share market a significant difference $\{\chi^2(1) = 11.506\}$ is found between the two.

15. How frequently do you study the trends of share market?

	Men	Women	Total
Daily	40 (44.44%)	10 (16.67%)	50 (33.33%)
Weekly	15 (16.67%)	7 (11.67%)	22 (14.67%)
Monthly	35 (38.89%)	18 (30%)	53 (35.33%)
Not applicable	0	25 (41.67%)	25 (16.67%)
Total	90	60	150

44.44% of men investors follow trends in share market on a daily basis compared to 16.67% of the women investors. While 38.89% of men investors follow a monthly pattern compared to 30% of women investors. Comparing the association of the genders and their frequency to follow trends in share market a significant difference $\{\chi^2(3) = 47.252\}$ is found between the two.

16. How sure are you about the returns derived from shares?

	Men	Women	Total
No certainty	15 (16.67%)	25 (41.67%)	40 (26.67%)
Moderate certainty	50 (55.56%)	23 (38.33%)	73 (48.67%)
High certainty	25 (27.77%)	12 (20%)	37 (24.67%)
Total	90	60	150

55.56% of men investors are moderately sure about the returns that they get as compared to 38.33% of women investors. 41.67% of women investors have no idea about the returns that they might get from investment in shares. Comparing the association of the genders and their surety of return from share market, a significant difference $\{\chi^2(2) = 11.514\}$ is found between the two.

Table 3: Taking the above three observations together: (S*: Significant; NS: Not Significant)

Sl. No.	Questions	Chi-square value	Degree of freedom	Asymptotic Significance
14	Do you invest in share market	11.505 (S*)	1	0.001
15	Frequency of following up of trends in share market	47.252 (S*)	3	3.07
16	Returns derived from share market	11.514 (S*)	2	0.003

H₀₃: There is no significant difference between the genders and their knowledge/surety about returns from shares.

Result: Comparing the results of chi-square test from question number 14-16, a significant association has been found among all the results computed above thereby rejecting the null hypothesis and accepting the alternate i.e. there exists a significant difference between the genders and their knowledge/surety about returns from shares.

CONCLUSION

This paper intends to encompass the risk appetite and preference of the genders towards shares and mutual funds. Both shares and mutual funds are avenues of investment which gives higher return than market return for a considerable period of time. Since there is a risk in this investment only well-informed investors can select this as an investment alternative. From the survey men are found to be more informed and certain about their return when compared to women. It is found from the study that money scarcity is restraining some of sample men in investing in shares but they are still following the trend in share market due to their interest in it. Whereas women who keeps their money in shares are following the trend on mostly monthly basis.

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AN EXPLORATORY STUDY ON USAGE WHATSAPP AS A MCRM TOOL**Saumya Satija¹ and Yashika Gupta²**¹Guest Faculty and ²BBA Student, Indira Gandhi Delhi Technical University for Women**ABSTRACT**

Mobile technology alongwith electronic commerce has transformed the way businesses operate. Mobile Customer Relationship Management (mCRM) combines mobility and CRM (customer relationship management) thatenablesorganizations to increase their business performance by delivering better products and services to their customers. Incorporating location-based information into CRM system has created higher valueand opened new business opportunities by personalizing the customer experience.WhatsApp, the world's most popular messaging application, is increasingly becoming a leading tool in the management of their communication with customers. This paper examines how WhatsApp for Business is used as a CRM tool. To validate the proposed research model, we had carried a primary research and collected data via questionnaire. The present study would help both academicians and professionals to understand and improve the business performance by employing the appropriate resources that can harness the full potentialof mCRM and upcoming mobile technologies.

Keywords: CRM, mCRM, mobile technologies, WhatsAppmessagingapplication, customer satisfaction

INTRODUCTION

Twenty First Century is the phase of digitalization and as the technology progresses more information is available at our fingertips. In order to win the industrial rivalry and exist in the dynamic business environment, the organisations are adopting new marketing strategies and promotional tools. CRM isthe science and art of creating and delivering value to fulfill the needs of a target market at a profit.The emphasis is not on how to sell the product but rather on generating value for the customer in turn creating value for the firm. In other words, it is a process of dual creation of value. Levitt (1969) introduced the concept of the augmented product,stressing that consumers are interested in the total buying experience, not just the core product. CRM relies on this concept because it tries to find the specific elements of the exchange process that produce valueforthe customer. This paper examines how organizations are targeting their customer using WhatsApp as a promotional tool. Meanwhile, it is very important for companies to maintain existing customers and attract new customer at the same time in order to survive in business. Therefore, Customer Relationship Management (CRM) system assists to discover and

attract new potential customers and retain existing ones by providing a comprehensive information and services offered by the companies. It is correctly said *"Implementation of CRM is an effort to find solutions that can help organizations develop customer relationships with high satisfaction"* (Mohammad hossein et al., 2018).^[6]

Nowadays, businesses use the web-based system (Baashar et al., 2020; Osman et al., 2017)^[6] for sharing their information with the customer. At the same time, smart devices such as mobile phones have grown from being just a means of communication to being a highly valuable business tool over the last few years, and it has also become more significant in our lives. It is easy to understand the reasons why more and more companies are choosing to use WhatsApp as their main channel of communication with the customer.

Literature Review

Customer Relationship Management (CRM) is a business approach that incorporates people, process and technology to create a meaningful dialogue with individual customers (Boulding et al., 2005)^[1] to retain customer and build customer loyalty (Sinisalo et al., 2007; Khurana & Chaudhary, 2010; Gebert et al., 2003)^[14]. It is based on the concept of Relationship Marketing (RM) (Berry, 1983; Behert et al., 2003; Zablah et al., 2004, as cited in Sinisalo et al. 2007)^[1]. The advent of novel technology and available data has brought CRM to another level. The Internet has become a popular channel for firms to communicate and manage relationships with their customers (eCRM). eCRM allows customers to access company services from different locations.

Recently, WhatsApp for business has emerged as a relatively new tool for companies to create personalized one-on-one communication with individual customers (mCRM) (Schultz & Bailey, 2000)^[1]. While eCRM has been the subject of extensive investigation by scholars, adequate empirical studies are lacking concerning the emerging phenomenon of mCRM, as a subset of eCRM (Sinisalo et al., 2007; Khurana & Chaudhary, 2010)^[14]. Exact research from the customer's perspective includes the effects of mCRM on loyalty (Chan & Lam, 2004; Liljander et al., 2007, as cited in Sinisalo et al. 2007) and customer satisfaction (Hsu & Lin 2008). Research also examined the benefits of mCRM and structures required for setting up mCRM from firms' viewpoints (Schierholz et al., 2007; Duran, 2010)^[1].

Mobile Customer Relationship Management (mCRM) was originally defined as "services that aims at nurturing customer relationships, acquiring or maintaining customers, support marketing,

sales or services processes, and use wireless networks as the medium of delivery to the customers" (Camponovo et al., as cited in Sinisalo et al., 2007, p 773)^[16]. Others have argued the importance of communication and redefined mRCM as "communication, either one-way or interactive, which is related to sales, marketing, and customer service activities conducted through the mobile medium for the purpose of building and maintaining customer relationships between a company and its customer(s)" (Sinisalo et al., 2007, p. 774)^[17].

The concept of mCRM is possible due to the growing use of smart phones and PDAs that are capable of being used as a cellular device. Companies have used a variety of mobile messaging such as Instant Messaging (IM), Multimedia Messaging Service (MMS), Short Messaging Services (SMS) and E-mail to promote one-to-one communication with their customer. Among different types of mobile messages, the use of WhatsApp messaging is growing at an astounding rates since almost every mobile phone can accept and send WhatsApp messages.

Companies have used WhatsApp messaging to deliver mCRM activities, such as coupons, alerts, reminders, contests, or product information, to those who have joined a customer program.

The use of WhatsApp messaging as a mCRM medium is of interest to business because of its unique benefits.

WhatsApp messaging services allow *personalized communication*, given that each mobile device is likely owned by an individual rather than a family (Sinisalo et al. 2007; Schultz & Bailey, 2000)^[18].

WhatsApp services permit *customers to access the firm's services* from a mobile phone or PDA with *internet access anywhere, anytime*, resulting in *high flexibility* (Balasubramanian et al., 2002)^[11]. Also, communication via mobile medium could be interactive and immediate when companies are able to establish a *direct dialogue with their customers*, and at the same time, customers are able to take action quickly using such information (Barnes & Scornavacca, 2004)^[19]. Further, the *increase in security of wireless network* allows customer data be sent over the network with more confidence (Ranjan & Bhatnagar, 2009)^[15].

Underlying issues pertaining to using WhatsApp messaging as a mCRM medium

The unique characteristics of WhatsApp messaging services has following challenges

- First, the use of WhatsApp messaging service requires customers to opt in for the mCRM program so that marketers could initiate communication with them. Thus, it is a challenging task for marketers to invite clients to enter into the dialogue over the mobile medium.
- Second, while *personalized, relevant, timely, and secured communication* could result in *positive emotional relationship between the companies and their customers* (Nysveen et al., 2005)¹¹, *any one annoying or unwelcome message could damage this relationship owing to the intimate nature of mobile devices* (Jelassi & Enders, 2006). Hence, *customers' preferences, interests, and needs have to be identified and understood by the company before positive communication can be commenced.*

Table 1: Related Works on mCRM

Author's Name	Research Study
Barnes, S.J. et al. ^[10]	• Mobile marketing is expected to be a key growth area. • The immediacy, interactivity and mobility of wireless devices provide a novel platform for marketing • wireless marketing is embryonic and experimental - the majority of wireless marketing is SMS based • The next generation of devices and networks will be important in the evolution of wireless marketing; higher bandwidth will allow rich and integrated video, audio and text • Considerable effort is needed in building consumer acceptance, legislation for privacy and data protection, standardizing wireless ads and creating pricing structures. If these conditions hold, wireless could provide the unprecedented platform for marketing that has been promised. Clearly, it is too early to tell, but future research aimed at examining these fundamental issues will help to

	further understand the implications of permission based mobile marketing
Nichaya Suntornpithug and Pasu Suntornpithug ⁽¹²⁾	This study aims to close this gap by investigating consumers' attitudes on how companies should embrace text messaging services to target consumers and win their trust and loyalty. The results will uncover useful information on whether marketing via mobile devices can be worthwhile for companies. The specific objectives of this research are follows: • Investigate consumers' level of interest in various forms of text messaging. • Determine what product and service categories are best promoted and received by consumers through various forms of text messaging. • Evaluate privacy issues relevant to text messaging as a mCRM medium. • Analyze the success of using text messaging as a mCRM medium
Dickinger, Astrid, Jamie Murphy, Arno Scharl et al ⁽¹¹⁾	This paper suggested an exploratory SMS marketing model of two independent variables; message and media success factors, which influence three dependent measures of success; consumer attention, consumer behaviors and advertising cost ratios. Future research challenges were improving the model and hypotheses testing of the success factors and their influence on the attitude towards SMS marketing.
Kim dj. et al. ⁽¹⁾	In this study, the authors investigated how the IT infrastructure and LBS support of mCRM, as technical resource capabilities, and mCRM knowledge and education, as human resource capabilities, can enhance business performance of the organization by improving mCRM's quality dimensions. They proposed a research model that integrated the resource-based view (RBV) of a firm and DeLone and McLean IS success model to investigate the effects of mCRM quality dimensions on business performance.

How mCRM Driven WhatsApp Messaging Can Benefit Business?

Mobile phones have become a vital part of our everyday lives and WhatsApp messaging has become one of the most widely used business communication channels moving beyond traditional marketing ways.

With this, it is safe to say that opting for a mCRM-driven messaging tool can help you reach your target customers seamlessly and help you drive traffic to your stores/websites, manipulate buying decisions, and increase conversion rate, rapidly.



Figure 1: Ways to strengthen customer relationship with mCRM

RESEARCH METHODOLOGY

Primary research has been carried out and 105 responses have been collected. The respondents of the study were Senior Secondary, Graduate, Postgraduate, PhD students and Professionals.

The research tool used was questionnaire which was divided in two sections. The questionnaire aimed at gathering demographic information, customer perception towards WhatsApp messages and their attitudes towards those messages.

Data Analysis and Results Demographic Profile of Respondents

Table 1 shows Respondent's demographic profile. There are 105 Respondents which were divided in three categories i.e. Male (12.3%), Female (85.71429%), don't want to disclose (No. Of respondents 2). Most of the Respondents were between the age 15-20(42.8 %), 21-25(35.2%), 26 to 30(93.3%) and 31 and above (6.6%).

This data signifies that all the groups (like Graduate, Post graduate, PhD and Professionals) are actively using WhatsApp mobile application on their mobile devices.

Table 1: Demographic Information of Respondents

Demographics	Frequency	Percent	Cumulative frequency
Gender			
Female	90	85.71429	85.71429
Male	13	12.38095	98.09524
Don't want to disclose	2	1.904762	100
Age			
15-20	45	42.85714	42.85714
21-25	37	35.2381	78.09524
26-30	16	15.2381	93.33333
31 and above	7	6.666667	100
Marital status			
Unmarried	88	83.80952	83.80952
Married	17	16.19048	100
Family Income			
10,00,000-15,00,000	19	18.09524	18.09524
5,00,000-10,00,000	75	71.42857	89.52381
Above 15,00,000	11	10.47619	100
Individual Income			
200000-300000	8	9.52381	9.52381
300000-500000	18	21.42857	30.95238
less than 200000	58	69.04762	100
Education Level			
Graduate	36	34.28571	34.28571
Phd	2	1.904762	36.19048
Post Graduate	42	40	76.19048
Professional	3	2.857143	79.04762
Senior Secondary	22	20.95238	100
Are you working?			
Yes	27	25.71429	25.71429
No	78	74.28571	100

RQ1: Understanding Mobile Usage of Respondents

The Graph clearly represents that respondents are using their phones for accessing Social Media, Calling, Text SMS, Studies and Other purposes and are doing majority of their day to day personal and official activities on these mobile devices.

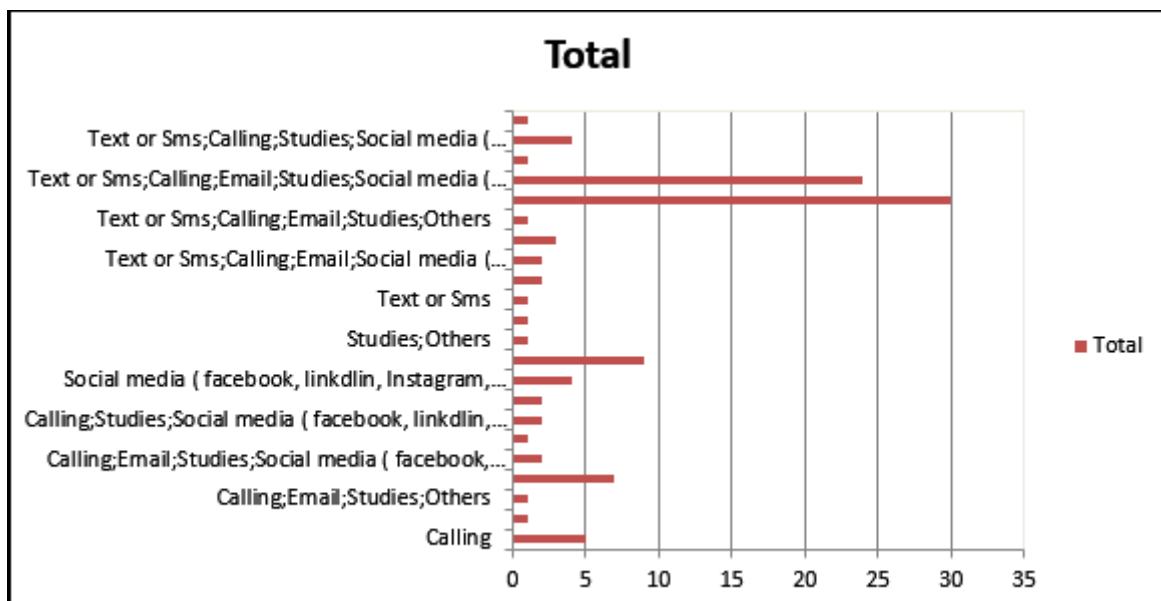


Figure 2: Graph showing Smartphone usage by respondents

RQ-2 Are You Receiving Promotional Messages via WhatsApp?

To understand current usage of WhatsApp for Business by organizations as a mCRM tool we tried to investigate this from our respondents. The following table summarizes the responses of respondents.

Table 2: Receiving Promotional Messages via WhatsApp

Variable	Frequency	Percentage	Cumulative Frequency
Yes	77	73.333	73.333
No	28	26.6667	100

RQ 3: Customers Acceptance Levels for Receiving Coupons, Alerts, Notifications about theProducts via WhatsApp

The following table shows the responses of the respondents and their attitude towards acceptance of receiving coupons, alerts and notification about the products via WhatsApp message.

Table 3: Customers Acceptance Levels

Variable	Frequency		Percentage	Cumulative Frequency
Are you interested in receiving Coupons via WhatsApp?	Yes	51	48.5	48.5
	No	54	51.4	100
Are you interested in receiving alerts, notification about the products via WhatsApp?	Yes	41	39.04	39.04
	No	64	60.95	100
Do you want promotional WhatsApp message?	Yes	35	33.33	33.33
	No	70	66.66	100
It is acceptable to you that companies can send me promotional messages?	Yes	27	25.71	25.71
	No	43	40.95	66.66
	May be	35	33.33	100

RQ4: For which product/service category you are receiving most of the WhatsApp message on your phone?

The following figure shows the major product/ service categories sending WhatsApp message to their customers on their WhatsApp numbers. We can infer from the responses that majorly ecommerce websites like Myntra, Flipkart, zomato, Swiggy, Zepto and Blinkit etc have adopted WhatsApp as medium of communication. Also banks have started sending notifications to their customers about their banking products via WhatsApp.

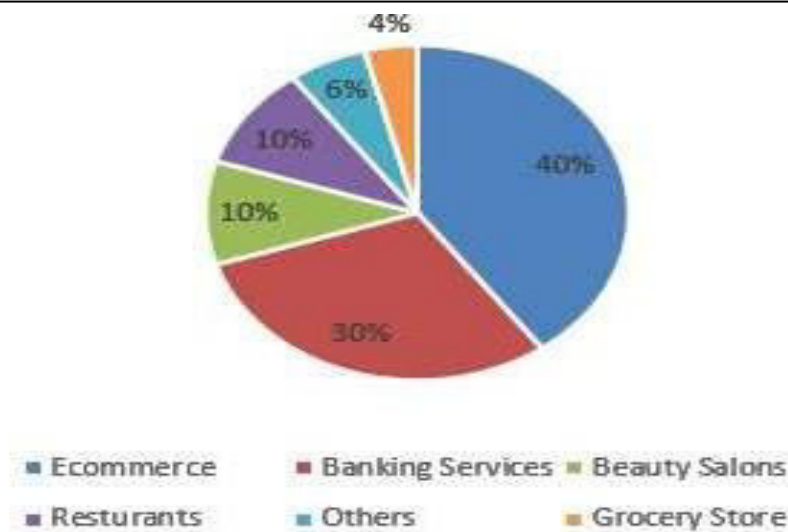


Figure 4: Type of product/ service category receiving most of the WhatsApp message

RQ 5 Are you interested in receiving notification about new launch products via WhatsApp without their consensus?

From the survey conducted we inferred that majority of the respondents were not interested (40%) in receiving notifications about new launch products via WhatsApp without their consensus, about 33% respondents are somewhat interested in receiving notifications about new launch products via WhatsApp without their consensus and 26% respondents are interested in receiving notifications about new launch products via WhatsApp without their consensus.

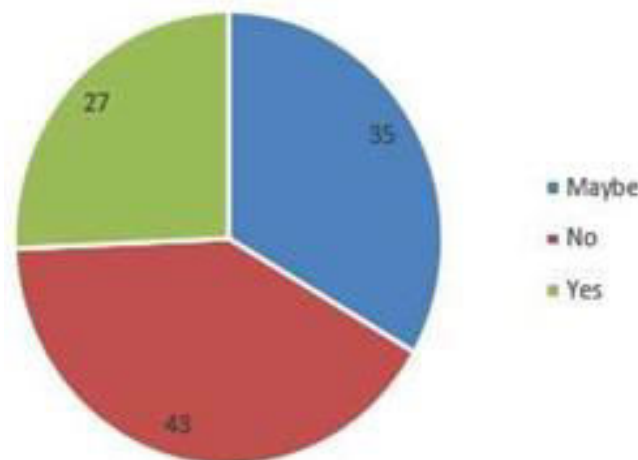


Figure 5: Percentage of respondents interested in receiving notification about new launch products via WhatsApp without their consensus

Also from the survey we can reveal that there is a correlation between the age of respondents and their interest in receiving notifications about new launch products via WhatsApp without their consensus.

The analysis reveals that older respondents are not interested in receiving notifications about new product launch as compared to younger respondents.

Table 5: correlation between the age of respondents and their interest in receiving notifications about new launch products via WhatsApp without their consensus.

15-20	45
Maybe	14
No	19
Yes	12
21-25	37
Maybe	16
No	12
Yes	9
25-30	16
Maybe	4
No	9
Yes	3
31-40	4
Maybe	1
No	1
Yes	2
40+	3
No	2
Yes	1
Grand Total	105

RQ 6-Likelihood of Coupon redemption received via WhatsApp messages?

The survey indicates that a majority of respondents (45%) are not likely to redeem the coupons received via WhatsApp messages. Approximately 25% of the respondents are likely to redeem the coupons received via WhatsApp messages. The following table shows the bifurcation of responses collected from the survey conducted.

Table 6: Likelihood of Coupon redemption received via WhatsApp messages

Likelihood of Coupon Redemption	Frequency	Cumulative Frequency	Percentage
Likely	18	18	17%
Not Likely	47	65	45%
Somewhat	32	97	30%
Very Likely	8	105	8%
Grand Total	105		100%

RQ 7 Number of Promotional WhatsApp Messages you would like to receive per month?

From the survey conducted we inferred that majority of the respondents (29%) did not want to receive any promotional messages on their WhatsApp. The following table shows the bifurcation of number of promotional messages and their acceptance.

Table7: Consumers perception towards number of promotional messages they would like to receive on WhatsApp

No of Promotional Messages via WhatsApp	Frequency	Percentage	Cumulative Percentage
None	30	29%	29%
1	18	17%	46%
2	16	15%	61%
3	12	11%	72%
4	17	16%	89%
5	12	11%	100%

CONCLUSIONS

In this current age of digitization there is exponential growth in the usage of internet and internet application. The companies are integrating CRM tools along with digital technologies

to leverage the power of growing technology to improve their customer experience. The past studies shows that the traditional CRM systems tend to fail as the technology is evolving which has led to growth of eCRM and mCRM tools. In recent years the usage of mobile devices have grown significantly which has pushed organisations to mold their strategies accordingly. The Study aims at investigating the usage of WhatsApp as a mCRM tool by organisations and the customer's perception towards it. From the study carried we found that only a limited categories of product and services have adopted WhatsApp as amCRM tool. The study further tried to investigate the customer's perception towards WhatsApp as promotional tool and we found that majority of customers are not interested in receiving promotional messages, alerts and notifications on WhatsApp as they feel these messages are spam and are intruding in their privatecommunication space. This hypothesis was further confirmed in our survey and we found that older respondents were more reluctant in receiving messages on WhatsApp as compared to younger respondents. From this study we concluded that though WhatsApp has provided WhatsApp forbusiness version and companies are using it as a mcrm tool but people are using it as a simple communication tool for their personal communication and are currently not likely interested in receiving promotional messages and the percentage of redemption of coupons via WhatsApp is also very less. The companies need to carry deep market research and need to effectively use WhatsApp as promotional tool and as a mcrm tool. Further they should take consent from their customers who want notifications and alerts via WhatsApp prior sending themmessages on their WhatsApp.

LIMITATIONS OF STUDY

In our study, we have used convenience sampling which has the limited number of respondents to a particular location i.e. NCR region. The study only tries to investigate the role of WhatsApp for business as mCRM tool which is still in its growing stage and still businesses are using traditional modes of communication like text and SMS messaging application and emails.

PRACTICAL IMPLICATIONS OF STUDY

This study will help to the businesses, academicians to understand how they can leverage the usage and features of WhatsApp as a mCRM tool and enhance their relationship, communication with their customers not only for promoting their business rather creating value for customers by providing 24X7 assistance.

FUTURE SCOPE OF STUDY

The study can be extended to study the use of Whatsapp for Business as mCRM tool by focusing on a particular industrial segment. Further other dimensions can be explored as now UPI and digital payment option feature has been enabled on WhatsApp which can enable marketers to leverage its features and better connect with their customers. Further understanding the customer's behavior towards Chabot feature will enable companies to stay connected with their customers 24X7.

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AN INSIGHT INTO TOXIC LEADERSHIP IN INDIAN HIGHER EDUCATION

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ABSTRACT

There is limited research on toxic leadership in higher education, despite the vast researches from the perspective of toxic leadership in corporate culture. Even sparse are the researches available on toxic leadership in Indian higher education. This study aims at studying and bringing into limelight the existence of toxic leadership in higher education in India from the faculty perspective. Qualitative research was done to understand the experience of faculties of working under a toxic leader. The results show that the faculties encounter of toxic leader is profound. They experienced adverse mental and emotional influences. Even the system of higher education in India was reported to be conducive for promoting toxic leader.

Keywords: Toxic leadership, Higher education, India, Dark side of leadership, Stress.

INTRODUCTION

“Nothing will kill a great employee faster than watching you tolerate a bad one”

- Perry Belcher.

A good efficacious leader is vital. The past is enriched with examples of inspirational leaders yet at the same time history is also filled with leaders who have wreaked harm to the organization, employees, society, nation (Green, 2014). The field of leaders and types of leaderships have been widely researched in the past but study of educational leaders is one aspect which is gaining momentum. Educational leadership is a study which has its origin in organizational psychology (Smith and Lowman, 2019). The heightened interest in the analysis of leaders in the higher education has recently started to receive tremendous attentiveness from researchers (Smith & Lowman, 2019). Recently a lot of transformations has been noticed in the higher education sector due to globalisation of education institutions and opening of several profit private institutes (Black 2015). This shift has led to research scholars initiating the study of diverse approaches to leadership ranging from constructive leadership to toxic leadership (Padilla, Hogan, & Kaiser, 2007; Pelletier, 2010). Since years studies on leadership have focused on understanding the positive style of leadership and how a positive leader can enhance the productivity of the organization. But organizations have begun to understand that some leaders are biased towards their employees and subordinates, and are looking for means to comprehend how toxic leaders are impacting their organization productivity.

Toxic leadership deals with individuals whose selfish perspective and behaviour have adverse influence on subordinates, organization performance and mission (Smith & Lowman, 2019). The major determinants of toxic leaders are: indifferent for the subordinate's well-being, subordinates' belief that the boss is majorly concerned about personal gains and such personality traits which has negative influence on the workplace environment (Whicker, 1996). Toxic leaders harm the employees and are least concerned about anything outside their personal interest. They spread negativity by exercising extreme control (Killic & Günsel, 2019). Prior researches on toxic leadership has brought in focus various other aspects of destructive leadership like Bullying leadership (Ashforth, 1994; Ferris, Zinko, Brouer, Buckley & Harvey, 2007), abusive surveillance (Tepper, 2000), poor leadership (Kellerman, 2004; Erickson, Shaw, & Agabe, 2007), weak leadership (Kelloway, Sivanathan, Francis and Barling, 2005), narcissistic leadership (Paunonen, Lönnqvist, Verkasalo, Leikas, & Nissinen, 2006), destructive leadership (Einarsen et al., 2007) deterrent leadership (Thoroughgood, Hunter, and Sawyer,

2011), toxic leadership (Lipman-Blumen, 2006) have been studied as the dark side of leadership (Conger, 1990).

Hitchcock, 2015 promulgate toxic leaders as individuals who put the blame of a wrong decision on subordinate's shoulder and hamper the employee's creativity and productivity through their negative behaviour. Akca, 2017 described toxic leaders as individuals who display unfavourable attitude towards employees. Their behaviour is toxic because of the powers vested over them. They spread negativity in the organization air and are detrimental for the employees and organization long term success. Zagross & Jamileh, 2016 depicted toxic leaders- persons who prioritize personal objectives in contrast to institution objectives and are unable to handle criticism. Kasalak & Aksu (2016) depicted the characteristics of toxic leaders: negative gender biasedness, poor organization communication, rumours, conflict, poor problem-solving skills and delayed decision making.

The aim of the paper is to study and analyse how toxic leaders in higher education in India impacts the employees mentally and emotionally. Studies related to toxic leaders in higher education have been done in different countries (Fahie, 2019; Herbst & Roux, 2021; Orunbon et al., 2022) but studies of toxic leadership in higher education particularly in Indian context is missing. This paper tries to fill this gap as the education system of India varies substantially in compared to other countries. So, a thorough in-depth analysis of the employees in higher education system in India and their experiences of working under a toxic leader is the need of the hour.

METHOD

This study uses qualitative interpretive methodologies of phenomenology and narrative research to understand the lived experience of employees. Interpretive research is a means to develop the truth that we know with the help of meanings and our understanding gathered from our social environment (Angen, 2000). In interpretive research researcher divulges into the subjects' social surroundings to garner a better understanding (Creswell et al., 2007). Moreover, the narrative method used in the study supplement each other, since the interviewees lived experiences is their truth and their truth is implanted in their narration. (Cresswell, 1998).

Participants and Data Collection

The data was collected using criterion and snow ball sampling. The inclusion criteria specified participants should have a minimum of two years' experience of working as faculty in higher education. Initially, the researchers approached 25 employees to participate in the study, of which 17 individuals agreed to participate; however, no additional participants were approached due to data saturation. The participants averaged 35 years in age and approximately 2-10 years of employment.

Profile of the participants is given in table 1.

Table 1: Participants profile				
S.No.	Pseudo names	Age (in years)	Gender	No. of years as faculty
1	Hemant	29	Male	2
2	Mayuri	35	Female	6
3	Reeta	30	Female	3
4	Divyanka	31	Female	7
5	Suraj	46	Male	10
6	Himadri	35	Female	7
7	Nimita	29	Female	4
8	Anuradha	35	Female	9
9	Kanchan	35	Female	6

10	Mohit	45	Male	13
11	Poonam	23	Female	4
12	Renu	30	Female	6
13	Pratima	49	Female	15
14	Vineeta	35	Female	5
15	Shikha	29	Female	5
16	Sumitra	39	Female	9
17	Rashmi	28	Female	4

Before conducting the interview, a semi-structured interview manual was developed for conducting the study. Open-ended questions were asked to encourage the participants to share their personal experiences while contemplating upon their feelings and emotions of working under a toxic leader. Questions were designed in such a way that they addressed the existence of toxic leadership from Indian perspective while reflecting on the participants experiences. For instance, “Do you think you work under a toxic leader?” This usually led to the participants thinking deeper into their leader behaviour and answering the question with instances where he/she felt the leader was toxic.

All the interviews were recorded and then duplicated in textual data to gain better knowledge, and identify themes to acknowledge the veracity of the interviews and narratives. The initial step was to read the text thoroughly and delve into the hidden meanings of the interview. Phrases and sentences forming identical meanings were associated in together, helping in identifying common themes and assisting in clubbing similar themes together. When every new interview was coded, it was compared to meaning and theme of already coded previous interviews. this was done for every set of interviews till a saturation point was reached in data coding.

FINDINGS

The thematic analysis of the interviews transcript divulged few themes, they have been organized as: Leadership style, Personal and professional aftermath, Institutional culture, System.

Personal and Professional Aftermath

Interviewees for the study explained how working under a toxic leader affected their personal and professional life. These include inferiority complex, self-doubt, loss of confidence, frustration, aggression, enhanced mood swings, anxiety, depression, emotional trauma. All the 16 interviewees had similar experiences and one interviewee also had to take medical treatment to get out of the mental trauma endured by her during her tenure of job.

Reeta 32, female described “Most importantly it affects your inner peace. Along with my professional life, my personal life is also affected. Working under a toxic leader brings behavioural change, I get irritated in small things, when I am taking classes full day it automatically brings aggression and ultimately you do bring that aggression and frustration in your daily personal life or on students.”

Himadri 35, female explained “for 6 months to 1 year I was completely lost, individually I am a very happy go person, I love talking to people and because of that one toxic leader my entire health was disturbed [...] My mental health was at a very bad state, I was completely traumatised and it took me more than a year time to get back into life”.

Interviewees also spoke of the professional impact of the toxic leader, they always felt overburdened and stressed out and felt suffocated in their job. They wanted to leave but due to financial crunches they had to continue their job.

Suraj 45, male described “I am the only bread earner of the family the whole family is dependent on me. So, leaving the job was never an option but yes, I did feel suffocated while working under the leader”.

Interestingly one interviewee felt that working under a toxic leader made her stronger both emotionally and mentally and ready to face the outer world. Anuradha, 32 believes “today I believe that it’s good that I didn’t leave the job because I got to learn a lot, received a lot of experience and learned that the world is like that only, and all this is a part and parcel of life”.

However, maximum interviewees were traumatized enough and who had the opportunity to leave, left the job and others who could not because they were the sole bread earners of the family continued despite the toxicity.

Institutional Culture

Institution/Organizational culture is the shared values which are embraced by the people within the organization and how the employer and employees act together against the outsiders (Fernades, 2018). The work environment within an organization is crucial for the work life experience and quality of the employees (Pheko et al, 2017). Interviewees for the study reported facing negative work environment and least and no support from colleagues and fighting ones battle alone. Few participants are of the opinion that their supervisor/leader intentionally spreads negative environment in the university so that the employees do not form a strong tight unit and raise voice against the leader.

Rashmi 28, female reported “when my organization was in the starting phase there was very a smaller number of employees comparatively, and we had a sense of unity among each other but our leader tried to break that by targeting on one or two employees who he believed will tell him the internal secrets. I think his motto was to bring negativity and work politics within the campus.”

One participant also described that the culture of her department was biased towards female and she had to endure much mental trauma because of that. Anuradha 32, female “my leader (HOD) was very negative, when I first met him, he was not ready to allot me the subject because the first factor was, I was a female and he always wanted a male faculty to work under him because he believed that I won’t listen or follow his instructions”.

Few interviewees were of the opinion that the it was the new leader who encouraged the negative and toxic culture in the university and destroyed the peaceful and smooth functioning of the university. Kanchan 36, female “I won’t say that the environment was toxic, because I have worked in the same institution with two different leaders, working under the first leader was very good and supportive whereas the second leader was difficult to work with. It was the leader that made the organization toxic, because after he entered into the organization it was after that thing started becoming difficult”.

Factors like fear of one’s own job, competition among colleagues, personal growth, good relation with leader were few other aspects reported by the interviewees for no support from colleagues leading to negative work environment.

Leadership Style

Leadership is a procedure of societal influence where leader attempts to receive the involvement of their subordinates voluntarily to attain the goals of organization (Omolayo, 2007). An efficient leadership style influences work satisfaction among employees and also enhances their commitment towards the organization (Nanjundeswaraswamy, 2014). The question of leader style raised a level of sarcastic responses among many of the participants. Ten of the total interviewees reported that their leader lacked the ability to manage difficult situations. The leader lack of sensitivity and courtesy towards the employees, not giving proper

acknowledgement and reward (monetary and non-monetary) were a major reason of dissatisfaction among the employees.

Hemant 28, male reported that maximum times he feels like leaving his job because of his leader “[...] most of the time the things within the institute are such that they are not pre-planned and many times you don’t get appreciated for things or work that you have done by giving your best”.

One participant Divyanka 32, female had an experience where his leader blew out the things in proportion which caused her emotional and mental trauma. The abuse of leader’s power was experienced by all the participants. Instances where the leader/management head deliberately misused their power and were aggressive, dogmatic and inconsiderate towards the employees’ problems were experienced by eight out participants. Reeta 30, female reported “[...] and the adverse effect of taking the vaccine was that for a week I was ill because of taking the vaccine while observing fast, which affected my classes, and it was so much of a trauma for me emotionally and mentally. If my leader would have supported me and had been considerate than the situation would have been different, I also had my doctorate exams at that time, it was all affected because of him”.

Interviewees also felt that their leader lacked the ability to handle the employee’s grievances and pushed it under the rug. The support that the interviewees were looking from their leader/department head was completely missing. Mayuri 34, female “creative and innovative ideas were not supported which is so frustrating and demotivating.”

System

Interviewees gave mixed responses when they were questioned regarding the role of power structure in promoting toxic leadership within the university. Participants expressed their feelings regarding power distance between the employees and top-level management. Few interviewees reported that the system in their university is centralized and centralization is what makes and promote toxicity within the system. Sometimes leader is scared of losing his own job if he supports his employee where required and hence keeps num. Hemant 28, male “people at every senior position have to maintain their status and power [...] he (leader) feels that if the problem reaches the higher authority, it will question his ability and fingers will be pointed at him. So, in order to save his inability, he does not handle the situation well”.

Interestingly, Mohit 44, male is of the opinion that the leader toxicity has nothing to do with the system but rather than the individual himself “[...] I have worked under two different leaders and one leader was difficult to work and one is so well managed and systematic, the university is same, rules and procedures are same, everything is same then why two different leaders behave in the different way.” Thirteen participants were highly dissatisfied with the appraisal system of their university, the system was flawed and slow. Suraj 44, male described as “[...] highly dissatisfied. No matter how good quality work I do I don’t receive any reward for that, even it is not even considered while promoting me”. Same parameters for appraisal for all the employees are highly dissatisfying. The interviewees feel that research paper is one major criterion for appraisal and all the faculties may not be good researchers, leading to poor appraisal. Also, few interviewees reported that the pay disparity within the university is so massive that they don’t feel like continuing in the field of academics, they have lost their motivation and zeal.

Poonam, 24 female “more than the poor and late appraisal system salary disparity is a major demotivator for me. In my campus same faculty with similar qualification has so much salary difference, at time this makes me feel like, I wish I had never entered the academic line. It is frustrating to another level.”

DISCUSSION

Toxic leaders have negative influence on the employees, organization and the overall productivity and growth of the system (MacLennan, 2017). Reed and Bullis, (2009) described that a toxic leader impacts the motivation and commitment of the employees negatively. The findings of Başar, Sıgı & Basım, (2016) revealed that working under a toxic leader lead to, anxiety, irritation, unhappiness, loss of motivation, stress, lack of confidence which is in line with the findings of our study. Weaver and Yancey (2010), study findings revealed that toxic leadership is positively related with employee's motive of leaving the job and negatively related with commitment of employees towards the organization. Kilic & Günsel (2019) described toxic leader as one who fail to realize the toxicity of their nature and their main focus is personal success while neglecting the harm they bring to the employees. Çiçek & Almalı (2020) findings is in line with our study, toxic leaders lead to conflict in workplace leading to negative work environment. The hardship and disappointment experienced by the interviewees induced breakdown of the employees into small groups, is detrimental for the development of healthy and productive workplace environment. Moreover, given the environment in Indian universities they have high probability that the higher education might encounter difficulty in attaining and maintaining qualified and interested employees. The employee's tied hands do not allow them to challenge unfair, unsystematic, leader leading to discontentment and employees running out of motivation. Such inequality within the Indian higher education needs to be addressed on priority basis.

Support from the leader, social support from colleagues, act as resources for the faculties (Evers et al., 2016). However, the data consistently revealed that the employees in Indian higher education receive negligible support from the supervisor, leader and even colleagues. Even they were highly dissatisfied with the pay structure of their campus/department and the appraisal system. The findings of Green and Zhou, 2019 is in line with our results, higher level of pay disparity leads to low employee morale. In addition, it is notable that the procedures for handling the employee grievances were reported by all the participants as ineffective and unsupportive. Further, the faculties in Indian higher education are overburdened with academic and non-academic load which is in contrast to the official guidelines of a designated load for faculties. Arroyo & Segovia (2019) described work overload leads to enhanced emotional exhaustion, interviewees have constantly mentioned their department head/leader giving them extra burden of work leading to feeling of leaving of job.

As per the available literature it is timely that more researches on toxic leadership in Indian higher education should be conducted, it is an area which is still untouched and it hold vast avenues for the researchers. Though, the present study is done to bring into focus the toxicity that exists in the Indian higher education and its influence on the employee's overall personality and mind set, it would be beneficial if a comparative study between the private universities and government universities is conducted to get a better and thorough understanding of the toxic leadership in both the arenas.

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ANTHROPOMORPHISM AND THE OTHER-NESS: THE CASE OF BUCK

Pavithra R

ABSTRACT

Anthropomorphism is defined as "attributing human attributes or behavior to a divine being, creature, or thing." This is used by authors to elaborate on characters that are not human. In Call of the Wild, Jack London used anthropomorphism to convey feelings of attachment and constancy, causing the reader to be more empathetic toward the dogs in the narrative. The continual advancements in innovation have paved the way for the deconstruction of concepts such as human being, accommodating, and mankind. These are typical ways of looking at 'oneself' and the 'other.' Many post-colonial scholars and Marxist masterminds have examined the evolution of 'other-ness.' Essentially, anthropocentrism asks and debates how the human (self) and the creature (other) are made and understood. The purpose of this research is to focus on how London employs Anthropomorphism, allowing the reader to see that people and animals share features that allow them to behave both civilized and wild. Misrepresenting animals in literature can have far-reaching effects, sometimes even affecting how people are treated. In the case of The Call of the Wild, the portrayal of dog characters mirrored that of Native American characters.

Keywords: Jack London, Anthropomorphism, Marxism, post-colonial scholars

ANTHROPOMORPHISM AND THE OTHER-NESS: THE CASE OF BUCK

In our minds, the word “dog” may mean a lot of different things. The expression should not be mistaken with a dog's physical presence, though. Such errors result in the rejection of dogs' lived experiences and their replacement with our own egos; they result in the exploitation of dogs as sources of profit, objects of misplaced rage, or instruments of war and world-building. This study focuses on the effects of one common setting where this error happens: the wilderness. When seen through a worldview that incorrectly views the world as a creation of either nature or civilization, dogs take on a metaphorical significance for humanity's relationship to and separation from nature. Dogs, being household animals, serve as conduits for mankind. This motif appears frequently in American wilderness stories.

Buck escapes the boundaries of civilisation and enters the wild, where he picks up the biological characteristics and outlook of his more untamed forebears. Buck exhibits reversed life pathways in that he starts out as a fully domesticated animal and finishes up as a stray canine living with wolves. Through this, London demonstrates a prejudice towards animal subjectivity that leads to the rejection of the function of the objective scientific observer. These implications stem in part from the desire to divide nature and culture. There may not be a need for a signalling guide if there is no ideological division. The idea of a nature and culture recognises the tenuous connections between what we consider to be commodities or culture that have been impacted by humans and naturally occurring, uninfluenced things. In natural cultures, we see the results of ecological and social intertwining.

Haraway investigates how we might build more wholesome, egalitarian, and fruitful significant otherness relationships if we had a better appreciation for and understanding of dog-human relationships. According to this viewpoint, dogs occupy a special place in human perceptions because we frequently place them in opposition to nature and culture, denying them a place in either, while also using them to create our ideas of the very spaces we exclude them from. We cannot, however, ignore their materiality and agency because we consider them to be a companion species. “They are not a projection, nor the realization of an intention, nor the telos of anything. They are dogs, a species in obligatory, constitutive, historical, protean relationship

with human beings” (Haraway & Begelke, 2003, p. 12). We are evolutionarily bound to dogs in a way that requires us to acknowledge and understand their material existence if we also wish to fully acknowledge our own. This is because of our shared evolutionary histories. She also helps us understand our disastrously failed past, present, and potentially successful future with dogs. Curious lines of inquiry into how we owe our canine companions and what appropriate responses to them might look like.

This paper demonstrates how the literary style helps the reader to relate to Buck. In the signifier guide figure, the object-tool that allows privileged characters to leave their cultural limitations and lead a more “natural” existence, dogs and Native Americans appear to textually connect. This transcendence is usually at the expense of the guide’s life or health. This study focuses on the problematic nature of this type of dog narrative and proposes some strategies for writing about dogs more successfully in literature. This study looks at how dogs have been portrayed reductively in literature, particularly in wilderness narratives that confuse nature and people as distinct things, in an effort to address this question.

Call of the wild suggests that the human was using the dog as a tool, but it is clear that the dog was also making use of the man after saving its companion. Our understanding of the dog and man as companions is complicated by their reciprocal use, which implies their mutual objectification. we must recognize that this is one illustration of the co-evolution of dogs and humans, complete with all of its brutalities as well as multiform beauties, even though we see the relationship both forming and shattering companionship bonds, from the way the two take turns following each other to the moment the man tries to kill the dog for its warmth. Both the beauty and the brutality are depicted in the call of the wild.

The canine protagonists in London’s stories blur the lines between nature and culture. They also object to concise definitions of subject and object. They are frequently used as invented or “self-born” tools that “man makes himself repeatedly,” similar to the dog in “to build a fire.” the dog assists the man in navigating the frozen river. However, the cringing scavenger reflected in the average village dog inverts them, demonstrating how such objectifications deconstruct themselves. When his current companion is no longer able to provide warmth, the dog seeks warmth from other people. In a world of objectification and separation, this is an affectless relationship.

The call of the wild, on the other hand, shows a world where dogs and people are aware of one another as fragments of a larger whole. Hal and Charles, along with those who don’t, will experience the same fate as the character from “to build a fire.” Although the boundaries still exist, they can be crossed. It takes adaptability and opportunism to survive in London’s Alaskan wilderness.

The concept of heredity cannot be conceived apart from relationships, which can only be recorded by those who are capable of doing so and are rooted in a culture of histories. To model hybridity, only heredity and co-evolution can be used. Fertility requires two factors in order to “fall from” and “fall into”: culture and nature. Buck’s characters bring these three categories—heredity, hybridity, and ferality—and their constituent parts together.

Through the dogs’ tenacity, anthropomorphism was first employed.

They swung out on the trail with remarkable lack of exertion, turned their heads uneasily, and stopped in surprise. The driver was surprised, too; the sled had not moved. The called his comrades to witness the sight. dave had bitten through both of sol-leks’s traces, and was standing directly in front of the sled in his proper place. (London, 2021, p. 44)

Readers who can relate to the dogs’ exhaustion but perseverance will be more sympathetic after reading this example. Because of London’s use of the dog’s tenacity, readers can identify with these characters in their difficult circumstances.

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ARE MERGERS OF PUBLIC SECTOR BANK CONTRIBUTOR OF GROWTH OR BOTTLENECK IN THE SYSTEM?

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ABSTRACT

Increase in non-performing banks (NPB) led the government of India to make a major decision to merge these NPBs with stronger banks in order to stabilize the economy and decrease the amount of unpaid loans held by the public banks in the year 2019. The mega merger scheme was carried out on 1st of April, 2020 which led to the merge of 10 Public Sector Banks (PSB) into 4 banks. Through this paper we investigate the purpose and impact of the Mega Merger 2020 on citizens from different sectors and backgrounds. We aim to provide an understanding of how the merger had a positive as well as negative influence over the Indian economic system through the means of primary and secondary research.

Keywords: merger, mega merger, public sector banks, non-performing banks, Deposit

I. INTRODUCTION

The merger is the mode by which two companies and more than two companies choose to come together and consolidate to make altogether new company with new name, or may remain independently operated and claimed. The merger makes the difference in decreasing the shortcoming and gets a competitive edge within the market. Within the merger process, the consolidating companies share information related to obligation, assets, and innovation, etc. with each other. Mergers are a way for companies to extend their reach, extend into new fragments, or gain market share. Formation of new entity by the merging of two companies is a legal entity. The merger is done to strengthen the financial development of country and to increase its presence globally.

Defining Bank Merger

Bank merger is a process where in “the assets and the liabilities of two banks are combined to become one bank. The Federal Reserve considers merger involving bank holding companies to more stringent regulations and risk to fight the mammoth issues of non-performing assets. Since, this can have a significantly high impact on financial industry

A. Why is it Important?

Mergers and acquisitions are important for consolidation and growth. It leads to better efficiency ratio and minimization of overall risk for operations of bank. The goal of financial inclusion and expanding banking geographic reach can be better realised by merging major public-sector banks and using their experience. Merger can lead to large size of bank that can offer more services and product. It leads to holistic growth of the banking sector.

B. Why do we need Bank Merger?

In order to achieve the following goals bank merger is required:

- **Profits Increment:** The value of shareholders will increase as there will be increase in assets by combining the amalgamation entity
- **Increase in Synergy:** The value of companies will increase whenever they combine as there will be increase in efficiency and performance after merger
- **Reduction in risk:** Mergers significantly help in the reduction of bank risk of being bankrupt.
- **Increase in diversification:** Merger can help the banks to attain rapid growth with expanded market access by diversifying their services.

- Reduction of competition: Mergers help in the reduction of competition in the market as potential competitors will be absorbed into one entity.

C. History of Mergers

The history of Indian bank amalgamation can be traced back to the 19th century. It commences when three banks of that time; “The Bank of Calcutta, The Bank of Madras and The Bank of Bombay” and got merged to form the “Imperial Bank of India” in 1921, which was later named as “The State Bank of India”. That moment had marked the beginning of merger in the Indian Banking sector. Different committees that were formulated in this regard had given their recommendations.

The committees formulated were as follows:

The Narasimham Committee (1991 and 1998): Recommendations were provided to public sector banks by this committee in terms of managing and non managing financial institutions.

Verma Committee: This committee recommended that there will be lessening of the cost.

During the amalgamation of bank.

Laws that guide the mergers of banks are as follows.

- “Section 44-Banking Regulation Act 1949” emphasises on the arrangements for consolidation of two banks.
- “Section 391 to section 394 of Companies Act 1956” emphasises on the consolidation of a banking company and non -banking company.

In 1969 the Government of India nationalised 14 major private banks. Later in 1980 other six more private banks were nationalised since then these banks have become the larger lenders within the country.

Past Mergers

The phase of Indian bank mergers had been started late in 1960. Some of the vital changes in this regard till date are:

- Pre-Nationalisation Period: All banks were private banks between the period 1961 and 1969 as this period is considered as pre nationalization period. In 1969, 14 banks were nationalized by government of India. The stated period has undergone maximum number of mergers (greater than 40) to improve the financial status of weaker and underperforming banks.
 - Post Nationalisation Period: Period between 1969 and 1991 saw more 13 bank mergers and six more banks got nationalized during this period. Most of the banks during this section were private and public.
 - Post Liberalisation Era: The zone of LPG or liberalization, privatization and globalisation policy was presented which liberalised numerous things. The policy was intended to move towards higher economic growth rate and to make sufficient foreign exchange reserves.
- a) PNB and NBI consolidated in 1993.
 - b) Banaras Bank Ltd. and BOB consolidated in 2002.
 - c) Oriental Bank of Commerce and Global Trust Bank consolidated in 2004 to form the GTB.
 - d) State Bank of Saurashtra combined into SBI in 2008.
 - e) State Bank of Indore consolidated into SBI in 2010.

- Consolidation Period: The period from 2015 to 2017 was marked turning era for SBI. SBI was turned out to be bigger bank as Government had chosen to merge the relate banks of SBI into the parent bank. So, in 2017 five associate banks were at that point combined into SBI which has made SBI the biggest bank in the entire list.
- Government of India had announced to merge Vijaya Bank and Dena Bank with the Bank of Barodain the year 2018.
- Mega Merger Wave :In 2019 government of India had decided to merger 10 public sector banks into four banks and process of merger stated in 2020
- “The list of all the mergers that happened so far in the history are as follows.

Table1: History of Past Mergers

s.no.	Target Bank	Acquired Bank	Year
1.	“Sikkim bank	Union Bank of India	25/05/1999
2.	Global Trust Bank	Oriental Bank of Commerce	27/08/2004
3.	Bank of Madura Ltd	ICICI Bank Ltd	14/03/2001
4.	Times Bank Ltd	HDFC Bank Ltd	26/02/2000
5.	South Gujrat Local Area Bank Ltd.	Bank of Baroda	25/06/2004
6.	United Nation Bank(uwb)	IDBI Bank	03/01/2006
7.	Benares State Bank ltd	Bank of Baroda	21/06/2002
8.	ICICI & its retail finance subsidiaries	ICICI Bank ltd	JAN 2002
9	ANZ Grindlays Bank	Standard Chatered	27/04/2000
10	Bareilly Corporation Bank ltd	Bank of Baroda	07/06/1998
11	Bank of Punjab ltd	Centurion Bank of Punjab ltd	19/04/2007
12	Lord Krishna Bank	Centurian Bank of Punjab	29/8/2007
13	Sangli Bank ltd	ICICIBank ltd	31/10/2007
14	Centurion Bank of Punjab ltd	HDFC Bank	23/05/2008
15	Ganesh Bank of Kurundwad ltd	Federal Bank ltd	25/01/2006
16	BharatiyaMahila Bank(BMB)	State Bank of India	2017
17	State Bank of Bikaner and Jaipur(SBBJ)	State Bank of India	2017
18	State Bank of Taravncore (SBT)	State Bank of India	2017
19	ING Vyasa Bank	Kotak Mahindra Bank	2014
20	Bank of Rajasthan	ICICI bank	2010
21	State Bank of Mysore(SBM)	State Bank of India	2017
22	Andhra Bank, Bank of Maharashtra	Bank of India	2020
23	UCO Bank ,Syndicate Bank	Indian Overseas Bank Canara bank	2020
24	Oriental Bank of Commerce, Allahabad Bank, Corporation Bank, Indian Bank	PNB	2020”

II. MEGA MERGER WAVE 2020

We have already stated above the need and importance of bank mergers. There are various types of bank in our country including the small, medium and large but few of them are profitable and efficient. Therefore, the government of India decided to take up a mega merger in 2020. The government hoped to acquire three main objectives through this merger-

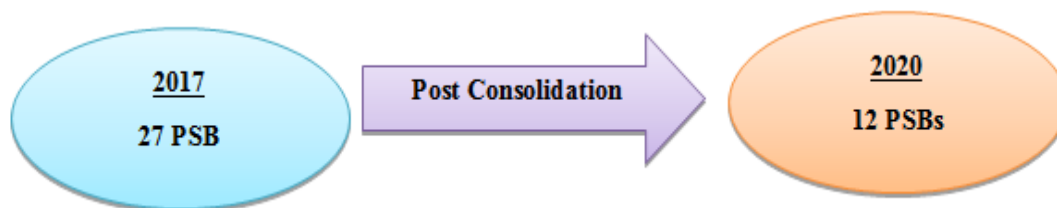
- Reduce the number of public-sector banks and make India's banks world-class. The merger intended to bring together banks with strong nationalities and international reach.
- The merger's other purpose is to provide capital assistance up front through financial strength, reforms, governance and consolidation.
- It is considered that constant occurring of frauds will be reduced by the merger.

Banks were first amalgamated to rescue non-performing or inefficient banks but as time passed it become the system. Business growth, profitability, and organizational structure have all been factors in recent mergers and acquisitions. There were 27 public sector banks in 2017. The government of India announced in 2018 that “Vijaya Bank” and “Dena Bank” will merge to form “Bank of Baroda”.

In April 2020, Indian banking scenario got redefined as the government of India gave its assent to the significant reform of merging the 10 PSBs. The merger was carried out in such a way that four public-sector banks were formed as the six public sector bank got merged.

The merger strategy was as follows:

- “Punjab National Bank” combined with the “United Bank” and the “Oriental Bank of Commerce”.
- The “Syndicate Bank” combined with the “Canara Bank.”
- The “Andhra Bank”, the “Union Bank”, and the “Corporation Bank” combined to form the “Corporation Bank”.
- The “Indian Bank” and the “Allahabad Bank” were combined.



After Effects of the Merger

In terms of capital acquisition, expansion of branch, extension of geographical area, development of human resources, these mega mergers has transformed the image of the banking system of country.

- PNB became the second biggest PSB with over 13000 ATMs, over 10,000 branches, and over 1 lakh staff, with Rs 16 lakh crore combined business.
- Union Bank has grown with turnover of over Rs. 14 lac crore and over 9600 bank branches to hold the fifth largest bank position in India.
- Canara Bank has grown with revenue of over Rs. 16 lac crore, over 10,000 branches and a workforce of over 90,000 to become India's fourth largest bank
- Indian Bank has grown with a turnover of over Rs. 8 lac crore and with over 6000 branches and 2800 ATMs to become the sixth biggest PSB in the country

According to the Finance Minister, Nirmala Sitharaman, the following changes were noted after the reforms in the public-sector finance system were implemented:

- “Public sector banks' profitability has improved.

- The Nonperforming assets is being reduced from Rs.8.65 lakh in Dec. 2018 to Rs.7.9 lakh in March 2019
- Housing finance institutions (HFIs) and Non-banking financial companies (NBFCs) have benefited from increased liquidity assistance”.

III. BANK MERGERS: POSITIVE OR NEGATIVE?

The banks' merger, which took place on April 1, 2020, resulted in the formation of seven large public sector banks with national reach and scale.

A. Effects of Bank Merger in India

1) Positive Effects

- After the merger, the combined size of each merged bank entity is going to strengthen the Indian banking system in general
- A large number of higher positions would be eliminated, saving crores of rupees.
- New organisation formed will be imbued with new blood and new ideas. Better systems may also be created to make employees' work lives more comfortable and pleasurable.
- Fewer Bank left after merger will cater to the customers more effectively with more products and services at lower cost.

2) Benefits of Bank Merger

- **Banking operation cost reduction:**Bank profitability will be enhanced after merging with a larger bank by lowering deposit rates. Increases profitability and elevate living standard, which is necessary for developing country like India.
- **Expanding the geographical reach:** The merging of large public-sector banks can improve the geographical reach of financial services. The goals of financial inclusion and geographic expansion of banking can be met more effectively.
- **Fall in NPAs and better risk management:** The onus that lies on the shoulders of central government of recapitalizing the public-sector banks has come down to greater extent due to higher liquidity and larger capital base.
- **Fill up technology gaps:** Mergers and acquisitions help banks in bridging gaps from product and technology point of view.
- **Better control of Central Bank:** RBI will exert greater control over the system and implement policies more effectively. From the regulatory point of view, it is easier for reserve bank of India to manage fewer banks formed after the merger.
- **Reduce degree of inefficiency:**The magnitude of inefficiency, which is greater in small banks, will be reduced. The system may benefit from bank consolidation, which would result in fewer but sound institutions.
- **Holistic growth of the Banking sector.** Large size of the Bank will help to improve the products and services quality and maintain the same. The benefits of the merger are considerable, with the most significant being the formation of a whole new client base, company empowerment, greater market share, and the chance for technology upgrading. As a result, it is advantageous to the economy as a whole.
- **Effective management of human resource:** Human capital in banks will be better managed, with improved staff system, centralised transfer system, pay scale uniformity, and employment policy uniformity, among other things. Consolidation will also improve capital efficiency, as well as banks' ability to recover bad loans, which are on the rise.

- **Greater recognition of Indian Banking:** Banks will receive better recognition and a higher grade in the global market. Mergers and acquisitions reduce overall risk, which is always beneficial from a company standpoint.
- **Consolidation of infrastructure:** Unproductive rivalry is eliminated with a centralised system, and a centralised management system eliminates extra time in transaction, paper work, and delegation. This has a snowball effect, leading to a smoother day-to-day operation like a well-oiled machine.
- **Improving the professional standards:** Professional standards have improved between the merging business and the new entity by applying the finest service conditions continue to all of them. Employees in smaller banks will thus have the option to enhance their working conditions through knowledge and technology transfer.
- **Financial savings:** Centralised positions of CMD, CEO, GM, and Zonal Manager leads to elimination of multiple resulting in significant financial savings. Instead of experiencing inequalities in service conditions and compensation, bank employees would be covered under a unified umbrella.

3) Negative Effects

- Diverse banks have different aims, priorities, and business methods, and merging them might cause misunderstanding about their principal goal.
- Small banks' shortcomings may be passed to larger banks, resulting in a reduction in their efficiency.
- Different organisational cultures will collide as a result of mergers. There will be conflicts in the areas of systems and processes as well.

Challenges of the Proposed Mergers

- **Technology Integration:** The process of technology integration between the two institutions would take a lengthy time, possibly 2 to 3 years. Websites, mobile apps, and IVR must all be combined into one, and the backend integration required to accomplish these merged procedures is massive. Core banking software is used differently by different banks. The government has made these decisions in order to merge these efficient and inefficient banks that use the same technology to seamlessly integrate and synchronise products (Table 5). OBC and UNI, on the other hand, employ Finacle-7, while PNB uses Finacle-10. As a result, OBC and UNI must improve their software systems to ensure seamless interaction. Furthermore, once these are integrated, cyber security becomes an important matter.
- **Synchronize of Products:** The task of integration may be easier in the case of shared core banking software, but it is not that simple due to differences in financial products among the merged group. As a result, financial product synchronisation is critical during integration. The impact of a bank merger on an existing borrower is likewise a major concern.
- **Mounting of Bad Loans:** Due to a surge in NPAs, banks have received worrying signals on durability and sustainability in recent years. Overall, the picture of NPA management is unsatisfactory (Maity&Sahu, 2019). The accumulation of bad loans, or NPAs, over time is a major factor for planned mergers. SCB gross NPAs was 73,954.1 billion in March 2019. The worst-hit could be Indian Bank, as Allahabad Bank which will be merged into the former, has net NPAs exceeding the net worth.
- **Deterioration of Asset Liability Management (ALM):** Banks with higher funding gaps are going to be amalgamated into anchor banks, resulting in deterioration of the ALM. According to India Rating Analyst the three mergers of PNB, Canara Bank and UNI could

have a detrimental effect on the acquiring banks due to the gap between the advances (inflows) and deposits (outflows) of these banks just like the previous merger of BOB acquiring Dena Bank and Vijaya bank.

- **Harmonizing Human Resources:** As in the past, coordinating human resource issues will be an essential element of these mergers. There are asymmetrical entities coming together, thus there will undoubtedly be some difficulties. Banks are only consolidated on paper. It is tough to change their people and culture. It is a formula for catastrophe because it results in a culture that is unsuitable for the organisation or the economy.
- **Short-term Cost:** The combination will incur expenditures in the short term, including IT integration, loan fair valuation, and business loss throughout the integration phase. According to a November 2017 Gartner research, Indian banks and financial institutions spent approximately \$ 19.1 billion on IT in 2017, which included money spent on modernising current infrastructure.
- **Customer Service:** Essentially, retail customers of the merging banks are likely to be immediately impacted due to changes in account numbers, customer IDs, MICR codes, IFSC codes, and so on, whereas consumers of the anchor bank are unlikely to see significant change.

IV. RESEARCH OBJECTIVES

Objective 1: To study the financial performance of acquired banks pre and post merger

- a) To study the Non performing asset of merged banks pre and post merger
- b) To study the deposits of merged banks pre and post merger

Objective 2: To study the impact of merger on rural and urban customers of different age groups pre and post merger.

V. RESEARCH METHODOLOGY

It is proposed to be a combination of qualitative and quantitative method study in a capacity to determine the financial performance pre and post mega mergers. The study will be done to access how these mega mergers are successful and how much they have achieved the objectives of their incorporation. Also to determine the smoothness of these mergers, how the employees are effected by the merger and how their dissatisfaction has impacted the efficiency of the bank.

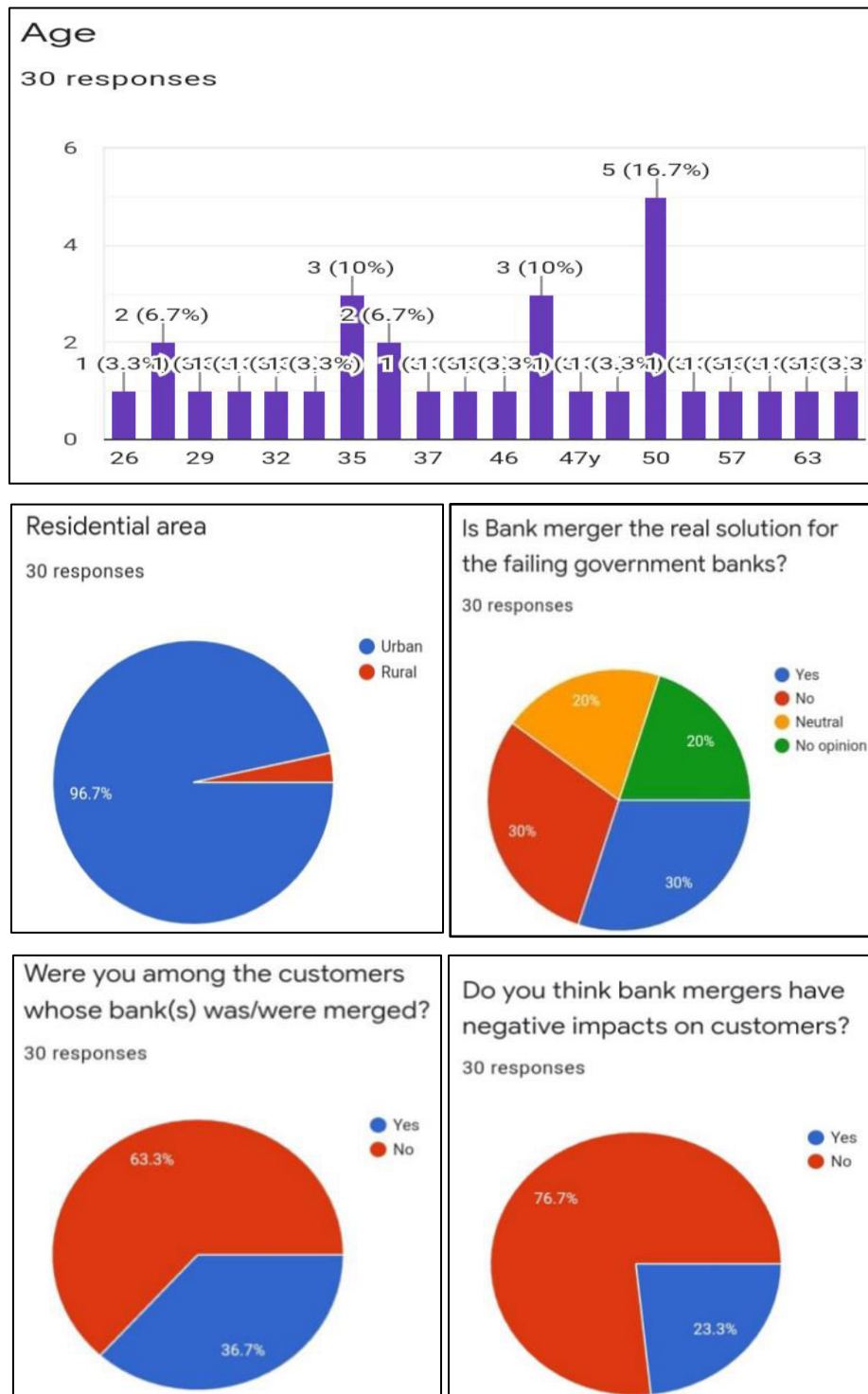
(A) Pilot Study for analyzing the effect of merger on customers.

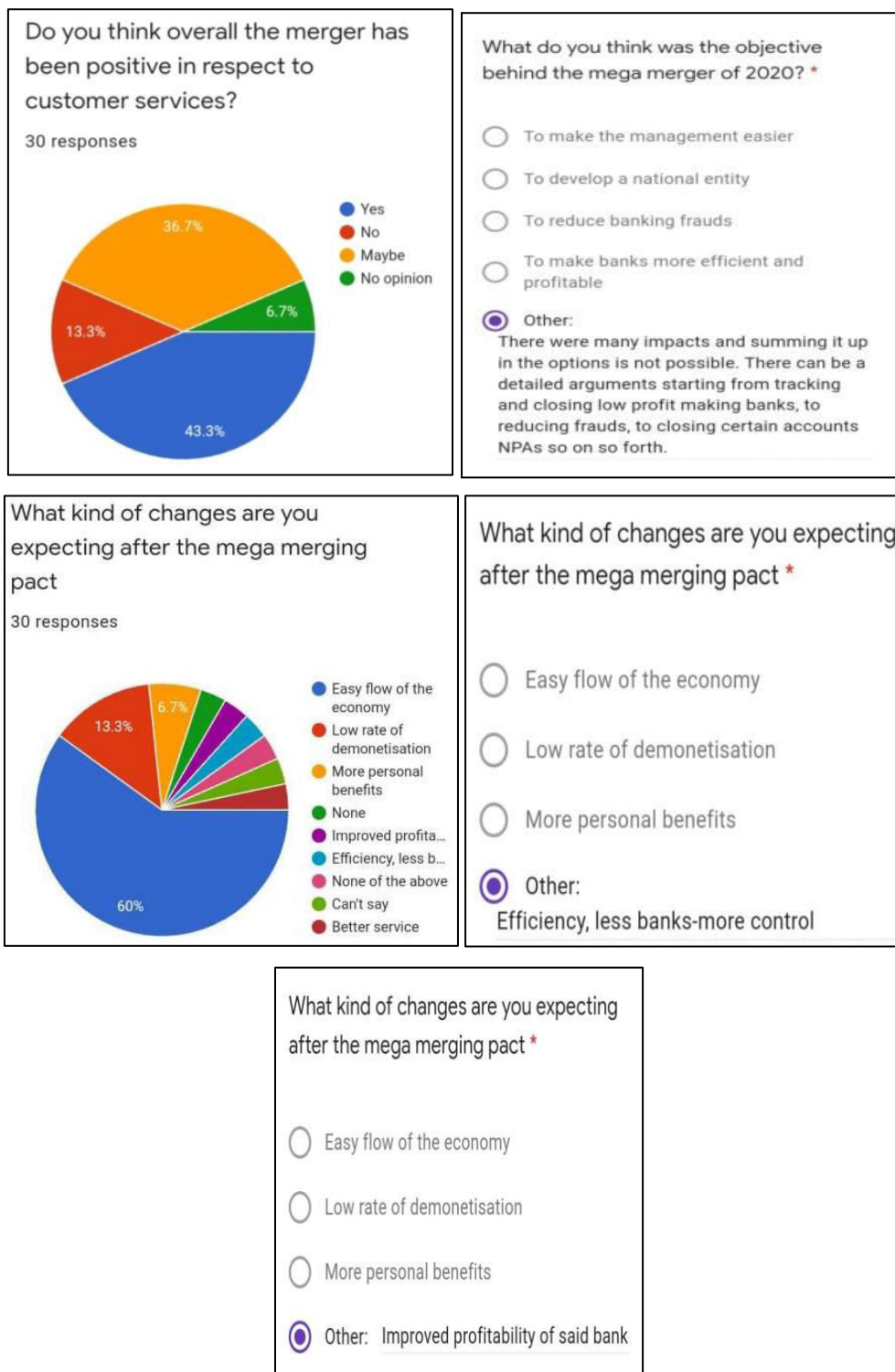
We have collected Primary data. We conducted a survey through Google Forms to get real and in-depth knowledge about the topic. Some of the secondary data is sourced from magazines, articles of newspapers, news reports, announcements by government and published journals

Survey and Analysis: The survey was conducted on 30 people between the age group of 26-60. Mostly the people were from urban residential areas. People belonged to various occupations such as Service, Government services, Self-employed, Housewife, Tax specialist etc. According to the responses about 76.7% of the people knew about what the bank mergers are and almost 73.3% of the people were aware about the bank mergers that took place in 2020.

From the responses it can also be concluded that bank mergers have low negative impact on customers. There were 36.7 % of people whose banks were merged and they were asked about one subjective question also that is- "if the answer for the question was yes, how did the bank merger impact you" some people said that there was no such impact on them while some said that there was lot of paper work to be done and some respondent said that it was positive for them as it consolidated their holdings.

About 50% of the people said that the main objective of merging the Bank was to make banks more efficient and profitable. People have different opinions about saying that bank merger is the real solution for failing government banks as shown in pie chart. 43.3% of the people agreed on saying that the merger has been positive to customer services while 13.3% disagreed. About 60% people expect that after the merging of Bank there would be an easy flow of the economy while 40% people have different opinion regarding this. For 16.7% people the creditability facility after the merging is better than before.





Inference from Pilot Study

After the conduction of the survey we can conclude that 60% of the people are expecting an easy flow of the economy after the merging of banks mostly a higher heft of people had the knowledge regarding the merging of banks a positive scale of impact regarding the bank mergers were on the favor of most them as 76.7% conveys that the customers had a highly positive impact. An eye to eye objective for the people behind the consolidation is expecting a

higher efficiency and profitability from the banks the credibility and the loan facilities were not a great impact on the customer's note. As a note we can conclude that the mega 2020 bank mergers gave a neutral impact to the economy as well as the fellow customers.

B) Financial Implication of Merger

In order to study the deposit of merged bank pre and post merger phase, the data related to deposit of merged bank and acquired bank is collected from the annual reports of respective bank and is compared to study the effect of merger on the deposits.

Table 2: Deposit of Bank pre and post merger

	NATIONALIZED BANKS	2018	Market Share	2019	Market Share	2020	Market Share	2021	Market Share	2022	Market Share
1	Andhra Bank	208,070	2.52	219,821	2.52	212,609	2.29	-	-	-	-
2	Corporation Bank	183,316	2.22	184,568	2.12	205,355	2.22	-	-	-	-
3	Union Bank of India	408,501	4.95	415,915	4.77	450,668	4.86	923,805	9.12	1,032,392	9.43
4	United Bank of India	129,326	1.57	134,983	1.55	137,615	1.48	-	-	-	-
5	Oriental Bank Of Commerce	207,346	2.51	232,645	2.67	230,108	2.48	-	-	-	-
6	Punjab National Bank	207,346	7.78	676,030	7.76	703,846	7.59	1,106,332	10.92	1,146,219	10.47
7	Syndicate Bank	272,776	3.30	259,897	2.98	281,270	3.03	-	-	-	-
8	Canara Bank	524,772	6.36	599,033	6.87	625,351	6.75	1,010,875	9.98	1,086,409	9.92
9	Allahabad Bank	213,604	2.59	214,335	2.46	228,609	2.47	-	-	-	-
10	Indian Bank	202,248	2.45	242,076	2.78	260,226	2.81	538,071	5.31	593,618	5.42

Table3: Calculation of deposit change of Acquired bank after the merger

Merger 1						
Andhra Bank (target bank 1) + Corporation Bank (Target Bank 2)	Target Bank 1 Deposit in 2020	Target Bank 2 Deposit in 2020	Acquired bank (Union Bank of India) Deposit in 2020	Total deposit	Actual Deposit in 2021 as of Union Bank of India	Percentage change in deposit
	212,609	212,609	450,668	875,886	923,805	5%
Merger 2	Target Bank 1 Deposit in 2020	Target Bank 2 Deposit in 2020	Acquired bank (Punjab National bank of India) Deposit in 2020	Total deposit	Actual Deposit in 2021 as of Punjab National bank of India	Percentage change in deposit
United Bank of India (Target Bank 1)+ Oriental bank of Commerce(target bank 2)	137,615	230,108	703,846	1071569	1,106,332	3%
Merger 3	Target Bank 1 Deposit in 2020		Acquired bank (Canara Bank) Deposit in 2020	Total deposit	Actual Deposit in 2021 as of Canara Bank	Percentage change in deposit
Syndicate Bank (Target Bank 1)	281,270		625,351	906621	1,010,875	11%
Merger 4	Target Bank 1 Deposit in 2020		Acquired bank (Indian Bank) Deposit in 2020	Total deposit	Actual Deposit in 2021 as of Indian Bank	Percentage change in deposit
Allahabad Bank (Target Bank 1)	228,609		260,226	488835	538,071	10%

Inference: There is percentage increase in the deposit of acquired bank after the merger. This shows that there is substantial increase in the percentage of deposits of banks after merger. This shows the efficiency of banks has increased after the mergers and their business has also increase after the merger.

In order to study the gross NPA of merged bank pre and post-merger phase, the data related to NPA of merged bank and acquired bank is collected from the annual reports of respective banks and is compared to study the effect of merger on the NPA.

Table3: Gross Advance and NPA of bank before and after the merger

BANKS	GROSS NPA/GROSS ADVANCES									
	2018		2019		2020		2021		2022	
	GROSS NPA	GROSS ADVANCE	GROSS NPA	GROSS ADVANCE	GROSS NPA	GROSS ADVANCE	GROSS NPA	GROSS ADVANCE	GROSS NPA	GROSS ADVANCE
Andhra Bank	28,124	164,535	28,974	178,690	28,709	178,655	-	-	-	-
Corporation Bank	22,213	128,005	20,724	135,048	19,399	140,541	-	-	-	-
Union Bank of India	49,370	313,860	48,729	325,392	49,085	346,921	89,788	653,479	79,587	716,408
United Bank of India	16,552	68,692	12,053	73,123	9,935	74,166	-	-	-	-
Oriental Bank of Commerce	26,134	148,206	21,717	171,549	21,751	171,626	-	-	-	-
Punjab National Bank	86,620	471,297	78,473	506,194	73,479	516,929	104,423	739,407	92,448	785,104
Syndicate Bank	25,759	223,346	24,680	217,149	24,086	199,995	-	-	-	-
Canara Bank	47,468	400,843	39,224	444,216	37,041	460,723	60,288	675,118	55,652	741,147
Allahabad Bank	26,563	166,436	28,705	163,552	27,847	162,774	-	-	-	-
Indian Bank	11,990	162,726	13,353	187,896	14,151	205,890	38,455	390,410	35,214	415,625

Table 4: Calculation of NPA change of Acquirer bank after the merger

Merger 1	Target Bank 1 NPA in 2020	Target Bank 2 NPA in 2020	Acquired bank (Union Bank of India) NPA in 2020	Total NPA	Actual NPA in 2021 as of Union Bank of India	Percentage change in NPA
Andhra Bank (target bank 1) + Corporation Bank (Target Bank 2)	28,709	19,399	49,085	97,193	89,788	-8%
Merger 2	Target Bank 1 NPA in 2020	Target Bank 2 NPA in 2020	Acquired bank (Punjab National bank of India) Deposist in 2020	Total NPA	NPA in 2021 as of Punjab National bank of India	Percentage change in NPA
United Bank of India (Target Bank 1)+ Oriental bank of Commerce(target bank2)	9,935	21,751	73,479	105165	104,423	-1%
Merger 3	Target Bank 1 NPA in 2020	Target Bank 2 NPA in 2020	Acquired bank (Canara Bank) NPA in 2020	Total NPA	NPA in 2021 as of Canara Bank	Percentage change in NPA
Syndicate Bank (Target Bank 1)	24086		37,041	61,127	60,288	-1%
Merger 4	Target Bank 1 NPA in 2020	Target Bank 2 NPA in 2020	Acquired bank (Indian Bank) NPA in 2020	Total NPA	NPA in 2021 as of Indian Bank	Percentage change in NPA
Allahabad Bank (Target Bank 1)	27,847		14,151	41998	38,455	-8%

Inference: There is decrease in the percentage of NPA after the merger. However the percentage fall in NPA in case of merger of syndicate and canara bank and that of merger of United bank and oriental bank with Punjab National Bank is only 1% .However the merger of Andhara bank and Corporation bank with Union Bank and merger of Allahabad bank with Indian Bank has cause 8% fall in NPA which shows that merger are fruitful in curbing the percentage of NPA. Also there is increase in the gross advance of bank after the merger.

VI. CONCLUSION

The government gave its assent to the significant reform of merging 10 PSBs which took effect in April 2020. Various banks that got merged were “Punjab National Bank merged with Oriental Bank of Commerce and The United Bank; The Andhra Bank, The Union Bank and The Corporation Bank merged to form Union Bank of India. The Syndicate bank and The Canara bank merged. The Indian Bank and Allahabad Bank amalgamated”. There were various effects of Bank mergers. As a result, the NPB decided to merge with stronger banks in order to raise the value of shareholders, the efficiency, performance, and the value of firms. As a result, numerous banks merged in 2020 to strengthen Indian banks' worldwide competitiveness and to strengthen the economy by raising liquidity, diversifying risk, and to fight the problem of non-performing assets. Mergers are both good and problematic for banks and the economy. Without a doubt, the merger will strengthen our financial system by increasing the size of each merged firm. Bank mergers may result in better liquidity management by banks. Bank mergers may result in better liquidity management by banks. Liquidity was achieved via lowering contingent commitments, shortening asset maturities, getting liquidity insurance, and so forth.

The government took a significant move toward mergers in 2020. As per our finance minister, “Nirmala Sitharaman”, the step of merging is an initiative to reduce public-sector banks in order to transform India a global Institution. The merger aims to consolidate banks' strong nationality and worldwide reach. The merger is considered to assist reduce the number of scams in the banking sector. The lockdown has also created a worrying situation for banks, as they are operating with fewer workers, fewer working hours, and a greater volume of work. Mergers offer a variety of advantages and downsides, as previously noted, but they will allow us to stand strong in the global economy. A well-planned and executed merger will boost the financial sector's health of the country. However as per the current state the mergers are seemed to be positive and viable option in curbing the NPA and increasing the advances and the deposits of Bank. But talking on the customer side merger has caused lot of challenges and problem to customer of rural areas where there is lack of financial literacy. But it is too early to comment on the nature of bank mergers whether they are contributors of growth or bottleneck for the banking industry let the time decide the true nature of these mergers.

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ATTITUDE OF TEACHERS AND STUDENTS TOWARDS MOBILE LEARNING IN TEACHER EDUCATION INSTITUTIONS

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ABSTRACT

Mobile learning, or m-Learning, is an online learning resource that students can use at any time, anywhere by utilising their mobile devices. A standard smartphone or tablet can be used without needing any additional parts or modifications. The study aims to shed light on the attitude of teachers and students towards mobile learning in teacher education institutions. The present study is descriptive in nature. The population of the present study consisted of B.Ed teachers and students of Teacher Education institutions Government and Private Colleges/Universities located in Jammu Division. The sample for the present study comprised 73 teachers and 201 students of teacher education institutions. Random sampling technique was used for collecting the data. A standardized tool "Teacher Mobile Learning Attitude Scale" (TMLAS) given by P. Pachaiyappan and S. Raj Kumar developed in (2016) was used in this study. The data collected was analysed using percentage, mean and t-Test were used to analyse the data. The findings of the study revealed that the teachers and students have shown an extremely high level of attitude towards mobile learning. Further, No Significant difference in attitude of teachers and students towards mobile learning with respect to their gender (Male and Female) and no significant difference among the attitude of teachers and students towards mobile learning with respect to their streams (Science and Arts) and no significant difference among the attitude of teachers and students towards mobile learning with respect to their type of institution (Govt. and Private) and no significant difference among the attitude of teachers and students towards mobile learning with respect to their locale.

Keywords: Mobile learning, Attitude towards mobile learning.

INTRODUCTION

A body of knowledge committed to making tools, processing activities, and extracting resources is known as technology. Technology is a broad concept, and each person has their own interpretation of what it means. In a nutshell, we utilize technology every day to do a variety of tasks. We can define technology as the tools and methods we use to make our lives easier. People are the most important component of any technological system because we use technology to increase our capabilities.

Another way that science is applied to tackle problems is through technology. However, it is crucial to understand that science and technology are two distinct fields that collaborate to complete tasks or address issues.

A combination of procedures can also be referred to as "technology." It encompasses technical methods, skills, procedures, techniques, tools, and raw materials. In this context, it refers to the current state of humanity's knowledge of how to combine resources to generate desired products, to solve problems, fulfil needs, or to satisfy wants. When used in conjunction with another term, such as "medical technology" or "space technology," it alludes to the current status of the knowledge and equipment in that particular discipline. as educators refer to educational technology. (Savaliya,2003)

MOBILE LEARNING

Alan Kay introduced the idea of mobile learning in the 1970s. Learning that is mobile-based is called mobile learning. The term "mobile" can also indicate "portable" or a tool that can be carried anywhere. This trend extends beyond just using a phone.

Utilizing personal electronic devices, mobile learning is a novel approach to obtain educational materials through social and content interactions. Mobile learning can be done on cell phones, tablets, computers, and digital notebooks. As long as you have a contemporary mobile device that is online, you can learn whenever and wherever you want. Mobile learning resources can be used anywhere during learning activities because they are compact and portable.

Mobile learning resources, such as smartphones, computers, e-readers, and gaming consoles, are accessible from anywhere in the world at any time, allowing students to learn as they see fit. On the playstore or the iphone, there are a tonne of educational mobile applications. These instructional apps are available to students in the language and format of their choice. Youngsters who use mobile learning have higher levels of reading and numeracy as well as higher participation in school.

The delivery of education and training using mobile devices, such as smartphones, PDAs, and mobile phones, is known as mobile learning. One aspect of mobile learning is the gadget that people always carry with them, use continually in all facets of their lives, and use in a wide range of circumstances.

Modern educational theory promotes changing the teacher's function from that of a knowledge provider to that of a "facilitator" of the learning process. A variety of student activities were provided by Jonassen et al. that allowed students to use technology to think, build knowledge, and learn from a constructivist perspective. Intentional learning, active learning, constructive learning, cooperative learning, and authentic learning are all components of meaningful learning, according to certain writers.

Electronically supported teaching and learning are more common because of recent advancements in internet and multimedia technology. E-learning is particularly well-liked in online and remote education programmes because it supports self-paced learning and is more affordable, among other benefits. Mobile learning refers to the use of handheld mobile devices for educational purposes in addition to e-learning software available on laptop computers. Making "ubiquitous learning" a reality, mobile learning, also known as M-learning, provides mobility, portability, and availability of learning at any time, anywhere. A model of learning called ubiquitous learning is one that is not limited by time or geography. It should enable just-in-time access to learning materials and support interactions with those materials as well as additional learning resources like tutors and peers.

The outdated learning methods are being turned on its head by modern technology, opening up various new learning opportunities for students. Our lives have been entirely taken over by smart devices and mobile phones, from entertainment and communication to the way we learn. For digital natives, mobile learning in school is revolutionising education.

Globally, universities and colleges have been researching how to use mobile learning to increase learner engagement.

RESEARCH STUDIES ON ATTITUDE TOWARDS MOBILE LEARNING

YoungkyunBaek (2017) conducts research on teachers' attitude toward mobile learning in Korea. The investigator adopted a Survey Method for the study. The main objective of the study was to find out the teachers' attitude towards mobile learning in Korea. The study revealed that the experienced teachers with more than 15 years had more attitude when compared to that of less experienced. Female teachers have a more significant attitude than that of male.

Reham, and Arshad (2018) carried empirical analysis on factors impacting intention to use m-Learning in basic education in Egypt. The objectives of the study were to come up with the development and examination towards a research model to uncover the factors that have important effects on the intention to use mobile learning for basic education in Egypt. The study revealed that the content quality design affected both effort expectancy and performance expectancy of m-learning and the relationship between learners' autonomy and behavioural intention is strongly significant, learners' autonomy has the highest path-coefficient with behavioural intention to use m-learning, which causes us to conclude that the learners' autonomy has a strong significant effect on behavioural intention to use m-learning. Higher levels of autonomy allow increasing the intention of the learners to use m-learning and the effort expectancy is deemed as an insignificant factor in this study. It is believed that the reason being is the lack of user-friendliness and comfortable design of the system and the Social Influence is considered to have a positive effect that can increase the intention of the learners to use m-learning and facilitating conditions was found to be significant on intention to use m-learning; accordingly.

OBJECTIVES OF THE STUDY

1. To assess the level of teachers and students in teachers education institutions towards mobile learning in Jammu Division.
2. To study the difference in attitude of teachers and students in teachers education institutions towards mobile learning with respect to gender.
3. To study the difference in attitude of teachers and students in teachers education institutions towards mobile learning with respect to different streams of study (Arts and Science).
4. To study the difference in attitude of teachers and students in teacher education institutions towards mobile learning with respect to type of institution.
5. To study the difference in attitude of teachers and students in teacher education institutions towards mobile learning with respect to locale (Rural and Urban).

RESEARCH DESIGN

In order to achieve the objectives of the present study and according to the nature of the study, a Descriptive Survey Method was used. It helps to explain the present situations systematically and the things that recently happened and established certain principles.

SAMPLING

For the purpose of the survey, a sample of 73 teachers and 201 students of Teacher Education institutions of the Jammu Division has been selected for the collection of data. The sample was chosen using random sampling technique as the representative of the population.

TOOL USED

For the present study we used "Teacher Mobile Learning Attitude Scale" (TMLAS) given by P. Pachaiyappan and S. Raj Kumar developed in (2016).

RESULTS OF THE STUDY

Objective 1

To assess the level of teachers and students in teachers education institutions towards mobile learning in Jammu Division.

Table 1

Sr. No	Range of Raw Score	Range of Z-Scores	N	Percentage	Grade	Levels of Attitude
1.	243 and above	+2.01 & above	32	43.2	A	Extremely Positive
2.	228 to 242	+1.26 to +2.00	13	17.6	B	Highly Positive
3.	212 to 227	+0.51 to +1.25	11	14.9	C	Above Average Positive
4.	192 to 211	-0.50 to +0.50	6	8.1	D	Average/Moderate Positive
5.	176 to 191	-1.25 to -0.51	1	1.4	E	Negative
6.	161 to 175	-2.00 to -1.26	1	1.4	F	Highly Negative
7.	160 and below	-2.01 & below	9	13.4	G	Extremely Negative
Total			73	100.0		

In order to assess the level of teachers' attitude towards mobile learning, the raw scores have been converted in scores range by using quartile and on the basis of scores range level. Frequencies were also computed and percentage analysis was calculated for each level shown in table 1

Scores Range, Frequency, percentage and level of teachers and students attitude towards mobile learning.

Level of Teachers attitude towards mobile learning in Teacher Education Institutions.

Table 1 indicates that 32 (43.3%) teachers have an extremely high level of attitude towards mobile mobile learning. 13 (17.6%) teachers have a highly positive attitude towards mobile learning. 11(14.9%) teachers have an above average attitude towards mobile learning towards mobile learning. 6 (8.1%) teachers have an average/moderate level of attitude towards mobile learning. 1 (1.4%) teachers have a negative attitude level towards mobile learning. 1 (1.4%) teachers have a highly negative attitude towards mobile learning. 9 (13.4%) teachers have an extremely negative attitude towards mobile learning.

Points scored

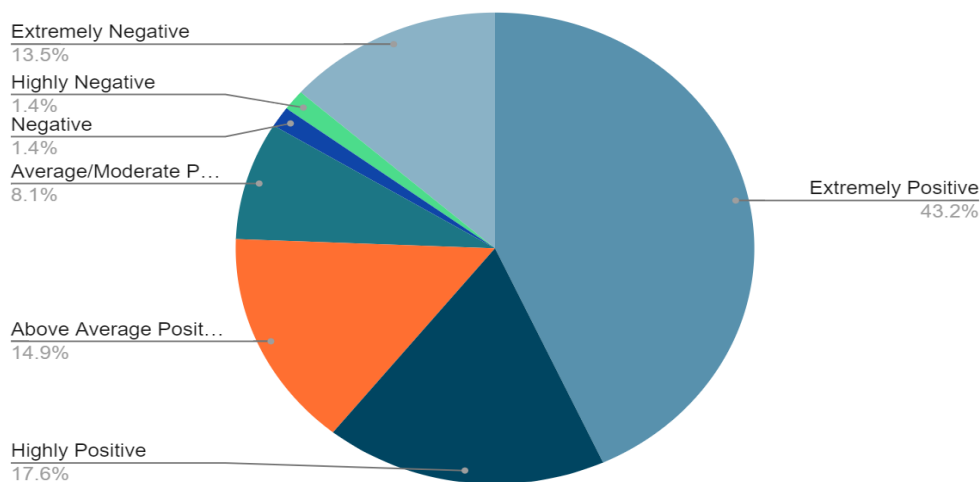


Fig. 1.1 Percentage wise distribution of teacher's attitude towards mobile learning

Table 2

Sr. No	Range of Raw Score	Range of Z-Scores	N	Percentage	Grade	Levels of Attitude
1.	243 and above	+2.01 & above	91	45.0	A	Extremely Positive
2.	228 to 242	+1.26 to +2.00	35	17.3	B	Highly Positive
3.	212 to 227	+0.51 to +1.25	36	17.8	C	Above Average Positive
4.	192 to 211	-0.50 to +0.50	24	11.9	D	Average/Moderate Positive
5.	176 to 191	-1.25 to -0.51	12	5.9	E	Negative
6.	161 to 175	-2.00 to -1.26	2	1.1	F	Highly Negative
7.	160 and below	-2.01 & below	1	1.0	G	Extremely Negative
Total			201	100.0		

In order to assess the level of students' attitude towards mobile learning, the raw scores have been converted in scores range by using quartile and on the basis of scores range level. Frequencies were also computed and percentage analysis was calculated for each level shown in table 2.

Level of Students' attitude towards mobile learning in Teacher Education Institutions.

Table 2 indicates that 91 (45.0%) students have an extremely high level of attitude towards mobile learning. 35 (17.3%) students have a highly positive attitude towards mobile learning. 36 (17.8%) students have an above average attitude towards mobile learning. 24 (11.9%) students have an average/moderate level of attitude towards mobile learning. 12 (5.9%) students have a negative attitude level towards mobile learning. 2 (1.1%) teachers have a highly negative attitude towards mobile learning. 1 (1.0%) students have an extreme negative attitude towards mobile learning.

Points scored

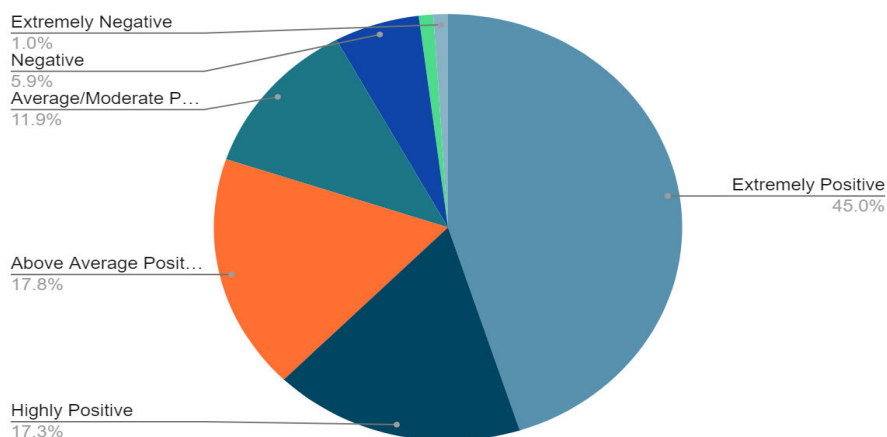


Fig.2.1 Percentage wise distribution of students attitude towards mobile learning

Hence, the hypothesis 1, stating that teachers will have a moderate level of attitude towards mobile learning in teacher education institutions stands rejected.

Overall, it is concluded from the table that the teachers and students have shown an extremely high level of attitude towards mobile learning.

OBJECTIVE 4.2.2**Difference in attitude of teachers and students in teachers education institutions towards mobile learning with respect to gender.**

Difference in attitude of teachers toward mobile learning with respect to gender

Table 3: Attitude of teachers towards mobile learning with respect to gender have been given in the table 3.

Mobile Learning	Gender	N	Mean	S.D	SEm	df	t	Level of Significance
	Male	10	202.20	67.12	21.23	71	0.02	Not Significant
	Female	63	230.35	35.63	4.49			

Table 4.3 demonstrates that the mean score of teachers with respect to male and female is 202.20 and 230.35 and the calculated 't' value (t=0.02 level) is not significant for the difference in attitude of teachers towards mobile learning with respect to gender. Thus, it can be inferred there exists no significant difference in the attitude of teachers towards mobile learning with respect to their gender.

Difference in attitude of students towards mobile learning with respect to gender

Table 4: Attitude of students towards mobile learning with respect to gender have been given in the table 4.

Mobile Learning	Gender	N	Mean	S.D	SEm	df	t	Level of Significance
	Male	24	244.54	33.16	6.77	199	0.79	Not Significant
	Female	177	239.15	34.73	2.61			

Table 4 demonstrates that the mean score of students with respect to gender (male and female) is 244.54 and 239.15 and the calculated t-value (t=0.79 level) is not significant for the difference in attitude of students towards mobile learning with respect to gender. Thus it can be inferred that there exist no significant difference in the attitude of students towards mobile learning with respect to their gender.

Thus Hypothesis number 2, depicting there is no significant difference in attitude of teachers and students towards mobile learning with respect to their gender, is accepted.

OBJECTIVE 4.2. 3**Difference in attitude of teachers and students in teacher education institutions towards mobile learning with respect to different streams (Arts and Science).**

Attitude of teachers towards mobile learning with respect to streams of study.

Table 5: Attitude of teachers and students towards mobile learning with respect to their streams of study has been given in the table 5.

Mobile Learning	Streams	N	Mean	S.D	SEm	df	t	Level of Significance
	Arts	49	225.67	41.42	5.92	273	0.49	Not Significant
	Science	24	228.17	43.56	8.89			

Table 4.5 demonstrates that the mean score of teachers with respect to streams of study (Arts and Science) is 225.67 and 228.17 and the calculated t value (t=0.4 level) is not significant for the difference in attitude of teachers towards mobile learning with respect to Streams (Arts and Science). Thus it can be inferred that there exists no significant difference in the attitude of teachers towards mobile learning with respect to their streams.

Attitude of students towards mobile learning with respect to streams of study.

Table 6: Attitude of students towards mobile learning with respect to their streams of study data have been given in the table 6.

Mobile Learning	Streams	N	Mean	S.D	SEm	df	t	Level of Significance
	Arts	108	242.62	37.21	3.580	199	0.25	Not Significant
	Science	93	236.51	30.96	3.21			

Table 6 demonstrates that the mean score of students with respect to streams of study (Arts and Science) is 242.62 and 236.51 and the calculated t value ($t=0.25$ level) is not significant for the difference in attitude of students towards mobile learning with respect to Streams of study (Arts and Science). Thus it can be inferred that there exist no significant difference in the attitude of students towards mobile learning with respect to their streams.

Thus Hypothesis number 3, i.e. there is no significant difference among the attitude of teachers and students towards mobile learning with respect to their streams, accepted.

Objective 4.2.4

To study the difference in attitude of teachers and students in teacher education institutions towards mobile learning with respect to type of institution.

Attitude of teachers towards mobile learning with respect to types of institutions.

Table 7: Attitude of teachers towards mobile learning with respect to their Type of Institution data have been given in the table 7.

Mobile Learning	Type of Institution	N	Mean	S.D	SEm	df	t	Level of Significance
	Govt.	23	227.74	43.36	9.04	71	0.29	Not Significant
	Private	50	230.82	41.55	5.88			

Table 7 demonstrates that the mean score of teachers with respect to type of institutions is 227.74 and 230.82 and the calculated t value ($t=0.29$ level) is not significant for the difference in attitude of teachers and towards mobile learning with respect to Type of Institution (Govt. And Private). Thus it can be inferred that there exist no significant difference in the attitude of teachers towards mobile learning with respect to their type of institution.

Attitude of teachers towards mobile learning with respect to types of institutions.

Table 8: Attitude of students towards mobile learning with respect to their Type of Institution data have been given in the table 8.

Mobile Learning	Type of Institution	N	Mean	S.D	SEm	df	t	Level of Significance
	Govt.	52	243.00	34.75	4.82	198	0.78	Not Significant
	Private	148	238.66	34.59	2.84			

Table 8 demonstrates that the mean score of students with respect to type of institutions is 243.00 and 238.66 and the calculated t value ($t=0.78$ level) is not significant for the difference in attitude of students towards mobile learning with respect to Type of Institution (Govt. And Private). Thus it can be inferred that there exist no significant difference in the attitude of students towards mobile learning with respect to their type of institution.

Thus Hypothesis number 4, i.e. there is no significant difference among the attitude of teachers and students towards mobile learning with respect to their type of institution, accepted.

OBJECTIVE 4.2.5**Difference in attitude of teachers and students in teacher education institutions towards mobile learning with respect to locale (Rural and Urban).**

Attitude of teachers towards mobile learning with respect to locale.

Table 4.9

Mobile Learning	Locale	N	Mean	S.D	SEm	df	t	Level of Significance
	Rural	33	224.67	49.34	8.59	71	0.34	Not Significant
	Urban	40	228.00	35.07	5.54			

Attitude of teachers towards mobile learning with respect to Locale (Rural and Urban) data have been given in the table 9.

Table 4.9 depicts that the mean score of teachers with respect to locale (Rural and Urban) is 224.67 and 228.00 and the calculated t value ($t=0.34$ level) is not significant for the difference in attitude of students towards mobile learning with respect to Type of Institution (Govt. And Private). Thus it can be inferred that there exist no significant difference in the attitude of students towards mobile learning with respect to their type of institution.

Table 4.10

Mobile Learning	Locale	N	Mean	S.D	SEm	df	t	Level of Significance
	Rural	91	233.70	33.55	3.52	199	0.29	Not Significant
	Urban	110	244.83	34.63	3.30			

Attitude of students towards mobile learning with respect to Locale (Rural and Urban) data have been given in the table 4.10.

Attitude of students towards mobile learning with respect to locale.

Table 4.10 demonstrates that the mean score of students with respect to locale (Rural and Urban) is 233.70 and 244.83 and the calculated t value ($t=0.29$) is not significant for the difference in attitude of students towards mobile learning with respect to Locale (Rural and Urban). Thus it can be inferred that there exist no significant difference in the attitude of students towards mobile learning with respect to their locale.

Thus Hypothesis number 5, i.e there is no significant difference among the attitude of teachers and students towards mobile learning with respect to their locale, accepted.

CONCLUSION AND DISCUSSIONS

Based on the interpretation of the results drawn in the present study as discussed in previous chapter, the investigator lays down the following conclusions:

1. From the findings of the present study, it was found that teachers and students had shown an extremely high level of attitude towards mobile learning. So it can be said that teachers and students have highly positive attitude towards mobile learning.
2. From the findings of the present study, it was found that no significant difference exists in the attitude of teachers and students with respect to their gender. Similar results have been reported in the studies conducted by Fouzdar&Behera (2017), Emran&Shalan (2015). So mobile learning should be the part of teaching and learning.
3. The present study reveals that no significant difference exists in the attitude of teachers and students with respect to their streams. Similar results have been reported in the studies

conducted by Taleba&Sohrabi (2012), Fouzdar&Behera (2017), Sao, Sutradhar, Chada&Gayen (2018).

4. From the findings of the present study, it was found that no significant difference exists in the attitude of teachers and students with respect to their type of institution. Similar results have been reported in the studies conducted by Sao, Sutradhar, Chada&Gayen (2018).
5. The present study reveals that no significant difference exists in the attitude of teachers and students with respect to their locale. Similar results have been reported in the studies conducted by Sao, Sutradhar, Chada&Gayen (2018).

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AVAILABILITY AND USEABILITY OF REFERENCE MANAGEMENT SOFTWARES

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ABSTRACT

Software for handling references in many citation formats, including APA, Chicago, MLA, IEEE, and many more, is a vital tool. Software for organising references also offers a platform for centrally storing all the articles. It instantly offers references, performs automatic file renaming, uses cloud storage, and offers collaborative options, among other time-saving advantages. There are currently more than 30 reference management tools available to users like Mendeley, Bib desk, Bookends, Citavi, Cite u like. The user can choose any tool based on their needs, whether it's paid or free. Researcher of this study looks around the Mendeley Reference management tool.

Keywords: BMS, CMS, RMS, Mendeley.

1.1. INTRODUCTION

Reference management software has been a useful resource for researchers since the 1980s. It is also used by students, faculty members, and librarians. It has always been difficult to manage references while presenting research findings and creating academic papers. It's important to appropriately give bibliographic details for all cited sources so that readers can locate them if necessary. Writing down the bibliographic details of references by hand takes time, and more crucially, there will inevitably be some mistakes.

Software that aids in organising articles used for research projects or offers the link to the document can be referred to as reference management software.

Mendeley is the most widely used reference management tool in both India and other nations. Both a subscription edition and a free desktop version of Mendeley are offered. Free desktop software is offered with some restrictions. Tools for managing references are relatively user-friendly.

1.2. work can be performed by using Reference Management Software (RMS):

- Creating an own library
- Create Group
- Organize the files
- Organizing and searching articles
- Rename document files

1.3. Name of some Reference management softwares

Mendeley, Bib desk, Bookends, Citavi, Cite u like, Cite4me, Endnote, Easy bib, Paper pile, Papers, Refbase, JabRef, Qiqqa, Wizfolio, Zotero. etc

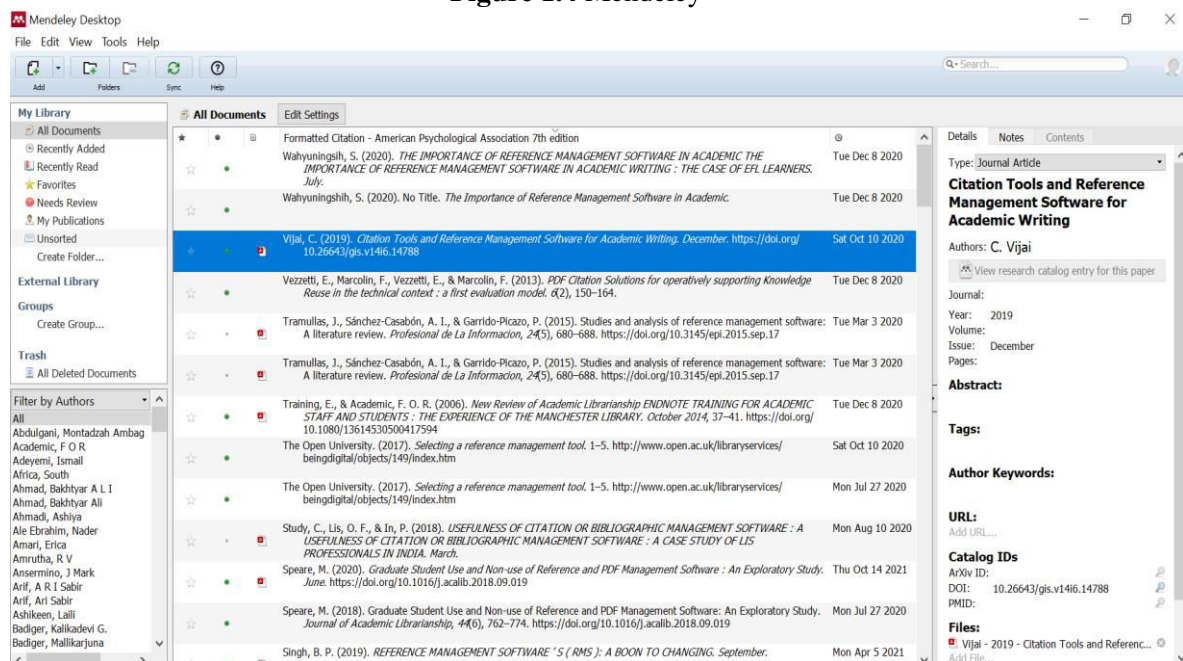
1.4. Step of using Reference management software (Mendeley):

- i Download Mendeley Desktop for windows from the website Mendeley.com
- ii Complete the registration form
- iii Create an account
- iv Create a personal profile

- v Naming own library
- vi Start adding papers, articles, and references to Mendeley library by dragging and dropping PDF files there, importing citations.

Mendeley: Using the application Mendeley, user can keep track of the books user've read. Mendeley.com is a free reference management tool that also provides subscribers with a premium edition. The most popular reference management software among academics is Mendeley. It was produced in August 2008 by Elsevier and is only available in English. Its users may automatically create bibliographies, collaborate, import papers, and access the internet, among other useful features. Mendeley RMS also enables you to organise and search reports, highlight them, and establish private or public groups. Operating systems for Windows, Linux, and Mac are all compatible with Mendeley. Users can easily create an account on the Mendeley.com website and download Mendeley. Users may quickly cite their sources and preserve them all in one place with Mendeley.

Figure 1.4 Mendeley



Source: Mendeley - Reference Management Software

Table 1: Available Features of Mendeley

S.No.	Features	Availability
1	Website	Mendeley.com
2	Operating system	Mac IOS, Windows,
3	Language	English
4	Cost	Free or subscription both
5	Storage capacity	1 GB free after 1 GB paid
6	Create a bibliography with different styles	✓
7	Import citation	✓
8	Sync	✓
9	Automatic citation extraction from PDFs	✓
10	Automatic File Rename	✓
11	Reader Count	✓

1.5. CONCLUSION

Other well-known reference management tools are Bookends, Citavi, Endnote, RefWorks, JabRef, and Zotero. Mendeley is the most widely used reference management programme among users (Singh, Mahawar 2022). Mendeley has a desktop version that customers can upgrade to access even more capabilities by purchasing a premium edition of the software. Mendeley's initial beta version was launched in 2008. Mendeley earned numerous honours in 2009, including European Start-Up of the Year and Best Social Innovation for Society.

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BARRIERS IN THE IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT IN MSMEs OF SAS NAGAR

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ABSTRACT

Paper aims: The main aim of this research is to determine the main barriers in the implementation of occupational health and safety management systems OHSMS in the MSMEs of SAS Nagar from the point of view of employer, worker and the supervisor.

Research method: Survey is conducted with the stakeholders like employer, supervisor, workers of 3 MSMEs located in SAS district of Punjab who influence the safety culture in MSMEs as these stakeholders can directly help in identifying the main barriers in the implementation of OHSMS in MSMEs.

Main findings of the Study: Employer and supervisor tend to blame workers and the government for the barriers in the implementing OHSMS, and workers tend to blame management for the difficulties in the implementation of safety management systems.

Implications for theory and practice: The barriers in the implementation of the health and safety management should be overcome by following the safety practices in day to day working culture and improving the working conditions of the workplace to minimise the work accidents.

Keywords: Occupational Health and Safety Management System, Barriers, Workplace Accidents

1. INTRODUCTION

The MSMEs are an important sector of industry across the globe in terms of contribution to employment generation and economic growth. Micro small and Medium Enterprises (MSMEs) play a major role in the development of economies, particularly in developing countries like India. MSMEs account for the majority of businesses worldwide and are important contributors to job creation and global economic development of any country. These numbers are significantly higher when informal SMEs are included. In India, the MSME sector contributes 30% to Gross Domestic Product (GDP) and 48% of the exports. Despite their crucial role for economic growth and development of the country, MSMEs often face considerable challenges to provide safe work environment to the employees. Employment in these enterprises is more often characterized by poor and unsafe working conditions, and low-quality and low-skilled jobs. Even if there is no single reliable source of information on the proportion of occupational accidents in MSMEs, a number of empirical studies show that MSMEs are more prone to higher occupational injury and fatality rates. Occupational accidents in MSMEs are much higher compared to those in large firms, as demonstrated by studies stressing the presence of a significant “size effect” – meaning that there is a higher incidence in small establishments than in larger ones. The work environment of MSMEs is more dangerous than that of large enterprises. Moreover, interventions to manage risks in small enterprises are ineffective because of few available resources and lack of solid management and awareness of work safety.

Efforts to prevent accidents and deaths are very important because of their relationship to the integrity of the human being and the survival rate of these companies. After doing all the efforts for implementing occupational health and safety measures there are so many barriers in the implementation of system properly from the point of view of employer and workers.

2. OBJECTIVES OF THE STUDY

- i. The main objective of the study is to find out the main barriers in occupational health and safety from the point of view of employer in MSMEs of SAS Nagar district of Punjab.
- ii. To study the barriers in the implementation of the occupational health and safety measures from the workers perspective in MSMEs.

3. NEED OF THE STUDY

Although the policies are available at national level and state level for the safety of the workers but despite of that, there are so many problems in the implementation of occupational health and safety measures in the MSMEs. Many researchers have found that occupational health and safety management policies to focus mainly on larger enterprises, leaving out the large group of MSMEs which are part of informal sector. MSMEs are having heterogeneous nature like their geographical dispersion, lack of cohesive representation and relatively short life spans – all of which makes them difficult to target and consequently difficult to regulate and also to make sure that all the safety policies are properly executed in the MSMEs. In SAS Nagar district of Punjab, there is still a lack of reliable information and data on the annual deaths and injuries of workers in the workplace, due to under-reporting – especially among MSMEs which shows that there must be barriers in the compliance of health and safety policies. Despite of the fact, there are so many studies conducted in this regard but no study has been conducted for this region. Even when statistics on occupational accidents and diseases are available, the data provided are often not disaggregated by size of enterprise. Government institutions often lack adequate resources for ensuring OSH compliance in MSMEs.

4. METHODOLOGY

For the undertaken study, researcher has conducted the survey opinion not only of employer but also of workers responsible for workplace safety. Employer who are formally responsible for management of OHS in MSMEs. Data were collected through personal interviews from the workers of the organisation because most of the workers are not much educated. A sample survey of 3 MSMEs is conducted and a total of 3 owners, 15 supervisors, and 75 workers was taken as per requirement. Data were analysed separately for the owners and supervisors of MSMEs of small enterprises and for the employees. For the two groups, the mean and the standard deviation of the scores for each barrier were determined. Ten barriers with the highest average were selected for each group. The results of the two analyses were compared with each other and with those of other surveys. Data were collected through a Likert scale questionnaire, which is widely used to measure attitudes, opinions, and preferences.

- Barriers in the implementation of the occupational health and safety measures from the point of view of employer.

For the owners group, the main barriers are: Systematically wrong behaviour of personnel; Stringent legal requirements; Personnel inadequately involved in OHS activities; Bureaucracy in the legal system; Absent or ineffective information collection system; Lack of awareness of OHS relevance by workers; Absent or ineffective information; Absent or ineffective communication. Most of the main barriers, in the view of the owners, are related to the behaviour of employees; for example, the owners considered the inadequate behaviour, the inadequate involvement in OHS activities.

- Barriers in the implementation of the occupational health and safety measures from the point of view of workers.

Prioritization of production over safety; Management not adequately skilled about OSH; Inadequate dedication of economic resources; Inadequate OHS policy

Table: Mean and standard deviation of responses.

Barriers	Employers	Workers
1. Systematically wrong behaviour of management	3.47 (1.18)	4.29 (0.96)
2. Management not adequately skilled about OSH	3.24 (1.28)	3.81 (1.08)
3. Lack of knowledge of the criticalities of the company by management	3.34 (1.17)	4.00 (1.22)
4. Lack of knowledge of the effect of the interventions	3.18 (1.04)	4.00 (1.05)
5. Inadequate OHS policy	3.26 (1.20)	4.00 (1.00)
6. Personnel inadequately involved in OHS activities	3.55 (1.18)	3.95 (0.92)
7. Inadequate dedication of economic resources	3.24 (1.02)	4.05 (1.07)
8. Absent or ineffective communication	3.42 (1.22)	4.00 (0.84)
9. Absent or ineffective information	3.42 (1.20)	4.09 (1.09)
10. Prioritization of production over safety	3.39 (1.28)	4.33 (0.91)
11. Difficulty in planning the OHS activities	3.18 (1.16)	3.95 (0.92)
12. Systematically wrong behavior of personnel	3.68 (0.96)	3.86 (0.96)
13. Personnel not adequately skilled	3.29 (1.06)	3.81 (1.03)
14. Lack of knowledge of the criticalities of the company by workers	3.29 (1.04)	3.76 (1.04)
15. Lack of awareness of OHS relevance by workers	3.42 (1.18)	3.76 (1.04)
16. Lack of technical resources	3.34 (1.10)	4.19 (0.93)
17. Absent or ineffective information collection system	3.47 (1.06)	3.52 (1.03)
18. Stringent legal requirements	3.63 (1.05)	3.24 (1.34)
19. Bureaucracy in legal system	3.50 (0.98)	3.38 (1.32)
20. Behavior of trade unions	2.88 (1.20)	2.95 (1.40)
21. Lack of guidelines from controlling authorities	3.23 (1.12)	3.33 (1.28)

5. CONCLUSION

MSMEs have limited access to the required resources due to financial constraints. As a result, there are difficulties to be faced by the owners to implement the occupational health and safety measures. Employees are subject to many occupational health risks, which are difficult to prevent, especially when the owners apply management styles that are traditional in nature, egocentric and to external regulations and interventions.

Basically, MSMEs are characterized by personal and informal management by the owner, independence, limited market share, high resource constraints, operation under extreme financial pressure, high start costs, profitability, and high potential to failure - short life cycle. One of the reasons for not implementing OHSMS in small enterprises is the very high investment required; thus, the system is perceived by the owners to have superfluous cost with unattractive benefits.

The commitment of the owner and the participation of workers go hand in hand; thus, initiatives should be simple, short, clear, related to tangible tasks, and easily adaptable to existing organizational structures because of low qualification and constraints in budget, personnel and time. Occupational health and safety conditions in MSMEs of SAS district of punjab can be characterized by the high rates of work-related accidents reported in official statistics. These conditions undermine corporate performance, destruct company images, and incur high social and financial costs. These indices are only a reflection of the poor OHS management and the lack of public policies aimed at this sector. The situation is worse in MSMEs mainly due to their financial, technical, and personal constraints.

Need to address the poor workplace conditions of MSMEs, but the effective implementation of occupational and safety measures faces several barriers from both the employer side as well as

employee side. These barriers should be identified to be overcome. Employer and supervisor tend to blame employees and government for difficulty in implementing OHSMS and perceive systematically inadequate behaviour of workers, strict legislation, bureaucracy, inadequate employee involvement in OHS activities, and lack of awareness of OHS relevance by employees as main barriers. Workers tend to blame management and resource allocation for this difficulty; their perceived main barriers are difficulty in obtaining authorizations, lack of organizational coherence and flexibility, lack of technical resources, inadequate dedication of financial resources, inadequate OHS policy, and lack of knowledge about the effects of OHS interventions by management.

6. SAFETY INTERVENTION PROGRAMMES FOR THE MSMEs.

It has been observed that the adequate and effective OHS resources and support in MSMEs have not generally been provided. In the literature identification of problems and challenges faced by employers, workers, enforcement agencies and researchers in relation to the development and implementation of OHS interventions has been found. There is a general consensus that safety intervention models developed for larger companies are ineffective with MSMEs and that difficulties contacting micro and smaller enterprises, their geographical dispersal and their short life spans, have all helped ensure that they have been left more or less to their own safety policies and not complying with the policies made by the Government.. A variety of models and preventive approaches have been developed at the international and national levels for use with small enterprises, the most common being the use of different types of checklists, implementation of OHS management systems and other preventive programmes. It has been suggested that the most successful methods appear to be tailored, action-oriented, low-cost approaches, combining health and safety with other management goals, and based on trust, participation and dialogue. Other approaches include: training and educational interventions, engineering and industrial hygiene interventions, a combination of industrial hygiene, health promotion and behavioural interventions and enforcement. Interventions need to take the characteristics of the owner-manager into account. Thus, interventions also need to help the owner-manager maintain an identity as a good employer and therefore avoid criticism of the enterprise, contribute to employee satisfaction, set standards for an acceptable working environment that can be accepted by peers in the industry sector and increase legitimacy among industry sector stakeholders. the main drivers for this are: positive management and worker attitude towards health and safety, availability of guidelines, involvement of management in the production process, availability of economic resources, communication. The model takes its onset in a legislative standard that is built into intervention programmes including three instrument pillars: inspection to enhance compliance, recognition of the standard by the stakeholders in the industry sector and dissemination of information to small enterprises. These three instruments create the mechanisms, within their particular contexts, that should encourage the owner-manager to pursue the standards: express societal legitimacy, signals of social acceptance and, provision of knowledge about the consequences of implementing or not implementing improvements. Since MSMEs are so numerous, geographically dispersed and diverse, one of the largest challenges is reaching MSMEs with interventions. The standards need to be described and communicated through regulation, including inspections that address specific health and safety issues, provide specific advice to solve the issues, be based on a dialogue with the owner-manager, and involve the social partners in the industry to secure legitimacy, implement ability and responsibility for support of the standards. The support system needs to provide specific tools (not risk assessment tools) that provide concrete/specific solutions that are integrated into business strategies and should be based on a variety of different types of intermediaries that have personal contact to the owner managers and understand the business context. Some of the most recent research has started to look more thoroughly at how different intermediaries can be used and what strategies should be applied to engage them.

MSMEs are influenced by a range of stakeholders in both their internal and external environments. Key stakeholder groups that influence OHS management in MSMEs include: customer, enforcement agencies, health and safety professionals, insurance companies, suppliers, trade associations, chambers of commerce and vocational training institutions. Different factors encourage the different types of small business stakeholders, as mentioned above, to address OHS improvements via intervention programmes. Thus, interventions not only need to address the characteristics of the MSMEs but also of the intermediaries who deliver the interventions to the SMEs. a better OHS intermediary could be characterised by: their commitment to align OHS activities with their business interests, already being engaged in delivering OHS products and services, seeking new ways of providing goods and services to small enterprises, being connected to small businesses through formal, informal or interpersonal relationships and, being innovative.

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BEHAVIORAL ASPECTS OF RETAIL INDIVIDUAL INVESTORS TOWARD EQUITY INVESTMENT: AN EMPIRICAL STUDY

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ABSTRACT

Investors face higher investing risk in this time of volatility and uncertainty. When it comes to equity investments, the risk has a greater direct impact on the volatility and swings that affect the return on equity, or the rate of capital growth and dividend income. Due to increased rivalry and other factors at play in the post-globalized world, even after the business practices are changing, which affects investors' expectations. Nowadays, investors' behavioral outlook is changing as a result of evolving behavior and psychology related to financial decision-making. The focus of inquiry is how retail equities investors respond to shifting circumstances and make investment decisions. This research article makes an effort to investigate and analyze the behavior influences of retail investors in stock investments, as well as how their expectations are changing in the age of volatility. By creating a questionnaire, for the study, secondary data will be collected via journals, news articles, websites, and, research papers, while primary data will come from retail individual investors. The changing expectations of individual investors can be revealed by research., which can help firms develop their dividend policy and encourage greater domestic retail equity participation.

Keywords: Investor, Dividend, Decision, Financial, and Equity.

INTRODUCTION

Behavior is significant and important to the decision-making process because it influences how an individual perceives the situation psychologically. Cognitive and behavioral psychology provide justifications for how behavioral aspects impact why people make irrational financial decisions. “The foundations of cognitive psychology today focus more on the creation of knowledge by individuals and groups, diverging from its earlier focus on information processing”. (Burton, J. K., Moore, D. M., & Magliaro, S. G. 2004). Due to the current environment's altered behavior and psychology toward financial decision-making, investors' behavioral perspectives are shifting. It is to be noted that “Changes in behavior and psychology related to financial decision-making have an impact on investors' behavioral attitude” (John R. Graham and Alok Kumar, 2006). Understanding their expectations and decision-making is crucial since it affects the retail individual investor's investment in shares. Their behavioral approach convinces investors to adjust their expectations for returns and their risk tolerance. “Risk tolerance in general, and the short-term risks subscale in particular, were not significant predictors of risk-taking behavior”. (Swaminathan S. Sivarajan, 2018). This can help with understanding the contributing elements and improving current retail investment. The subject of study is how retail equity investors adjust to changing circumstances and make equity decisions because of how unpredictable and turbulent the market is. It also “examines the moral complexities involved in making judgments on social welfare, risk, and harm to others; examines the ethics of business, finance, and markets” (Rahul Subash, 2011). This paper aims “Examine psychologically how emotions and mental blunders affect the actions of specific investors” to examine the behavioral influences of retail investors on stock investments as well as how the age of volatility is affecting their expectations. (Le Phuoc Luong & Doan Thi Thu Ha, 2011)

MAIN OBJECTIVES OF THE STUDY

1. To research how retail investors' behavior affects their choice of equity investments.
2. To research the expectations of investors for the overall return on equity in a changing and unstable environment.
3. To research and comprehend the equities investment expectations of individual retail investors.

THEORETICAL FRAMEWORK

This study examines the behavioral influences on equity decision-making and falls under the spotlight of behavioral finance.

Financial Behavior

In order to understand human behavior and provide a foundation for why people occasionally make illogical financial decisions, the field of finance known as behavioral finance searches for behavioral, cognitive, and psychological aspects and theory.

Another way to put it is a psychology-based study of behavior that seeks to understand the effects of emotion and cognitive error on financial decision-making.

Behavioral Methods:

Theoretical Heuristics: Heuristics are a notion that simplify complex and uncertain decision-making by simplifying the decisions required to evaluate probability and project values. Representativeness, anchoring, availability bias, and overconfidence are the key concepts under heuristics.

Potential Theory: The focus of prospect theory is on how an investor's value system affects their personal decision-making. Prospect theory shows mental states incorporating the influence of mental calculations, regret aversion, and loss aversion on people's decision-making.

Economic and Market Theory: Financial markets are impacted by investor behavior because it reflects changes in how they view the market. It is hypothesized that investors may overreact or underreact to market share price fluctuations or news as new information; extrapolate past trends into the future; fail to take into account the fundamentals of the share since they may concentrate on well-liked or steady stocks that are also cyclically influenced.

Theory of Herding: A behavioral approach known as the "herding effect" describes an investor's propensity to mimic the actions and performance of other investors. From the perspective of behavior, herding may be the cause of several emotional biases, including congruity conformity and cognitive conflict. Investors might favor herding if they believe it will help them get trustworthy and valuable information.

Determined Behavioral Influences:

A variety of psychological and behavioral factors, which convince and determine the risk tolerance and return expectations of investors, have an impact on stock investment for retail individual investors. The characteristics listed below are important when analyzing behavioral influence.

- a) Other investors' assessments: volume-herding effect, purchasing and selling preference. Decisions regarding finances and investments must take into account the aforementioned factors.
- b) Informational resource: Market Information: Price fluctuations, market data, historical patterns, underlying investment fundamentals, and excessive responses to price fluctuations or business actions.
- c) Financial Education: accessibility, knowledge, and analysis.

- d) Experiential Education (past loss or gain)
- e) Expectations
- f) Bias due to availability, overconfidence, and anchoring (Heuristic)
- g) Attitude (Prospect - Loss Aversion, Regret Aversion)

These elements have an impact on individual investors' equity decisions directly or indirectly.

ANALYSIS METHODS

i) Type of Study - The research is also descriptive in character because it tries to comprehend and examine how retail individual investors feel about investing in stock and expecting to receive dividends, as well as how they behave and what they expect.

ii) Population - In the Faridabad region, every individual who invests in equity for personal gain. Since an accurate population estimate cannot be obtained for retail individual investors, an unlimited population is taken into account.

iii) Sampling Frame - All individuals in the Faridabad region between the ages of 18 and 65 who invest in equity for their personal purposes.

iv) Size of Sample - Due to the difficulty in defining population, 384 will be considered the appropriate sample size for populations greater than 2, 50,000 or infinite.

iv) Different Sampling Methods - The population for retail individual investors is unlimited or indefinite, hence non-probability sampling will be utilized. The primary data of retail individual investors will be collected using a non-probability sampling technique called 'purposeful sampling'.

Analysis of Data:

Data is gathered by having retail individual investors who invest on their own in stock fill out a questionnaire. The investor's behavioral characteristics are analyzed using the percentage approach for data analysis. The table below contains an analysis of 384 responses with an interpretation in percentage terms.

Sr. No	List of Questions	Yes (%)	No (%)
1	You favour both capital gains and dividends when investing in stocks.	92	8
2	Is dividend return on equity seen as a key factor?	88.5	11.5
3	Are you more interested in stable or aggressive stock? Say "yes" if you are stable, "no" if you are aggressive.	71	29
4	Whether your fear of losing money in the stock market limits your ability to make investments.	74.3	25.7
5	Does trading volume affect the stock and investment approach you choose?	71.5	28.5
6	Do you have a price target before purchasing and selling?	69	31
7	No matter whether you change your mind or not if your analysis differs from that of the experts	73	27
8	Do you take recent developments into account while making decisions?	81.7	18.3
9	Are you able to predict if the market will return favorably or unfavorably?	68	32
10	Do you keep your stock during a lull? If available, say yes; if sold out, say no	69.5	30.5
11	Are you anticipating a higher dividend during the holding period?	93	7

12	Do you take the company prior performance into account before investing?	86.6	13.4
13	Can you improve your caution by learning from prior mistakes?	78	22
14	Do you ever find yourself trying to defend a former decision you made? Whether it is correct or incorrect.	81	19
15	If you compare the opportunity cost of other investments to equity investments, what do you find?	80	20
16	Whether there will be a minimum guaranteed return on the stock to cover the opportunity cost of other investments. Do you favour making more investments in a certain stock?	92.2	7.8
17	Do other investors' decisions affect your own? The number and variety of options have altered.	82.3	17.7

Analysis of Data Used:

Data is gathered by having retail individual investors who invest on their own in stock fill out a questionnaire. The investor's behavioral characteristics are analyzed using the percentage approach for data analysis. The table below contains an analysis of 384 responses with an interpretation in percentage terms.

OBSERVATIONS AND FINDINGS

The majority of respondents (92%), who said yes, believe that dividends and capital gains are both crucial for equity return. So it is possible to conclude that investors seek both regular and capital appreciation.

- Investors gain knowledge from their past experiences, and their future actions are a direct result of that knowledge.
- In order to balance the time value of money and the cost of keeping, investors expect more dividend income during the holding period, according to 93% of the sample.
- Investors anticipate more dividend income during the holding period to offset the time value of money and the cost of holding, according to 93% of respondents.
- Investors limit their investment when they experience a loss, which demonstrates their risk-averse and cautious conduct, according to the 74.3% of respondents who agreed.
- As 82.3% of investors replied yes to changing their decisions in response to expert advice and the opinions of other investors, investors' decisions are also influenced by those of other investors.
- Investors attempt to forecast performance in terms of returns and occasionally exhibit excessive confidence.
- Investors increasingly consider fresh information as well since they think it affects return on investment, with 81.7% responding positively.
- Investors conduct historical information analysis because 86.6% of investors have indicated that they also take past financial performance into account when making decisions.
- As 92.2 of the respondents indicated that they would be interested in investing and Investors are risk averse or moderate risk takers, increasing their investment in equities because they believe that the return on equity will more than offset the opportunity cost of making other investments.
- As 88.5% of retail individual investors believe that the dividend decision is important, they prioritize dividends when making equity investing decisions.

PRIMARY OUTCOMES

- The decision to invest in stock, including the type to choose and the amount to invest, is also influenced by one's attitude toward risk, including whether to take or avoid it.
- Impact of Dividend on Market Price is an example of how investor expectations as a result of their behavior impact their investment strategy.
- The overconfidence, prospect, herding, attitude, heuristic, expectations, and market information have been identified as the primary behavioral components.
- The decisions of investors are influenced by their prior decisions as well as by those of other investors. (Previous learning and the herding effect.)
- The extraordinary swings in stock prices reflect how investors interpret the information already available on the market and how they react to fresh information.

FUTURE SCOPE OF THE STUDY

This study can also help in identifying key psychological variables that may encourage increased domestic retail individual equity investment.

The scope of this study is limited to investigating retail individual stock investment behavior. This study aims to investigate how everyday people behave in relation to equity investments in order to help businesses develop dividend policies by examining how investors expect to behave when making equity investments.

SCOPE FOR FURTHER RESEARCH

This study project can be expanded upon to determine the behavioral influences for further investment possibilities or paths. Future study can be conducted in various fields and in various places.

CONCLUSION

It is commonly known to all that behavior is a basic decision-making aspect, and investing decisions are no exception. The overconfidence, expectations, attitude, heuristic, herding, prospect, and market knowledge are essential behavioral aspects that the researcher encounters while doing the research that influences equity decisions. In conclusion, it can be claimed that more equities trade individual investing can be encouraged as risk factor will be decreased if opportunity cost exists in comparison to alternative investment opportunity.

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HUMAN RESOURCE OUTSOURCING ON ORGANIZATIONAL PERFORMANCE – A SYSTEMATIC LITERATURE REVIEW

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ABSTRACT

In recent years, outsourcing by businesses has received more attention. The strategic use of external resources to carry out tasks typically handled by internal people and resources is known as outsourcing. A well-managed outsourcing arrangement enables businesses to succeed in markets where they would not otherwise be profitable. This study's goal is to investigate how outsourcing human resources has an impact on organisational performance. The influence of outsourcing human resources on an organization's overall effectiveness across all industries is covered in this essay. Consequently, this paper investigates the connections between organisational performance and human resource outsourcing. The literature on outsourcing and organisational performance in various industries in India and overseas is included in this study. The study's findings support the idea that outsourcing improves organisational performance.

INTRODUCTION

Outsourcing can be defined as work done for a company by the people other than the company's full-time employees. It entails asking the outside vendor to perform contractually or for a specific length of time for the organisation. In the past, businesses outsourced to reduce costs. But today, it's not only about saving money; it's also about gaining the advantages of strategic outsourcing, such access to qualified experts, lower overhead, flexible personnel, and improved efficiency, which in turn reduces turnaround time and ultimately increases profit.

While discussing outsourcing decisions, it is important to keep in mind that the majority of research has been conducted from the perspective of transactional costs theory, which has received strong empirical support, (Monteverde & Teece, 1982; Walker & Weber, 1984, 1987; Murray, Kotabe, & Wildt, 1995; Lyons, 1995), albeit mostly in the context of non-service industries.

Western nations, particularly the US, have seen a recent increase in HRM outsourcing [Galanaki E.; Papalexandris (2007), Szierbowski-Seibel K.; Kabst R (2018), Klaas B.S.(2008)]. Similar trends can be found in Vietnam, Taiwan, and other Asian countries [Lacity, M.C.; Khan, S.A.; Yan(2016), Lacity, M.C.; Khan, S.A.; Yan (2019)]. The major justifications given for outsourcing human resources are to lower costs, meet the demand for HRM knowledge, obtain specialised and high-end services, and improve business performance [Nguyen, T.T.T, Chang, M (2017), Galanaki E, apalexandris N (2007), Ko, C (2019)]. Workforce redundancy, performance evaluation, payroll and benefits, skill development and training, law and regulations, and retirement plans are among the HR tasks that have been outsourced [Galanaki, E.; Papalexandris, N(2007), Gottardello, D.; Valverde,(2018), Quinn, J.B (1999), Schlosser, F.; Templer, A.; Ghanam, D (2006), Sheehan, C.(2009), Shen, J (2005)].

The process of outsourcing human resources management to a service provider outside of a business is known as human resource outsourcing (HRO). Because they cannot afford to hire qualified part-time or full-time personnel across all areas of the organization's operations, many businesses outsource all or parts of their HR-related tasks. Other human resources tasks that are frequently outsourced include hiring and vetting, compensation, labour relations (IR), and workplace health and safety. The choice of whether to outsource HR operations or keep them in-house, however, depends on the costs and benefits of doing so and is driven more by HR requirements than by building internal strengths.

Core Functions of human resources management which are Outsourced by the organizations. (S.POORNA CHANDRIKA, 2020)

- Recruitment and selection
- Background checks
- Training and development
- Performance Management
- Executive development and coaching
- Compensation Management
- Employee relocation process
- Union and labor relations process
- Employee grievances
- Expatriate administration
- Health care benefits administration
- Human resources information system
- Retirement planning
- Pension and benefits administration.

OBJECTIVES OF THE STUDY

The current study intends to conduct a thorough analysis of earlier studies on organisational performance and human resource outsourcing. It gives insight into the organisational effectiveness and performance as a result of the outsourcing decision.

METHODOLOGY

The article uses information gathered from previously published literature on outsourcing and organisational performance. Information from both published and unpublished sources, such as journals, the internet, etc., is included in the secondary sources of data.

LITERATURE REVIEW

Definitions of Outsourcing

There is much debate in management literature defining outsourcing (Gilley and Rasheed, 2000). Some definitions refer to sourcing operations that were once carried out internally. Lei and Hitt (1995) define outsourcing as "reliance on external sources for manufacturing components and other value-adding activities". Some concentrate on locating parts, systems, and finished goods abroad (Bettis et al., 1992; Feenstra and Hanson, 1996). Perry (1997) focused on employment, defining outsourcing as: "another firm's employees carrying out tasks previously performed by one's own employees". Sharpe (1997) described outsourcing as handing off tasks outside of an organization's designated core competencies to a supplier.

A broad definition - Studying the literature on vertical integration, vertical disintegration, and "make or purchase" is necessary to source operations that an organisation has the internal capacity to carry out.

Human Resource Outsourcing –

Human resource Outsourcing is the process of an organization or person contracting another company or person to do a particular task for it, to gain some benefits out of it. (Hadfield, 2014).

Barney defined human resource outsourcing as a combination of various models and techniques to new or non-existing forms of activities and drastically reshaping and redesigning them with a purpose of producing output of value intended for end users in his academic work titled "Human resource management: A contemporary approach." Barney (1995) Human Resource Management: A Contemporary Approach. 5th Edition, Prentice Hall/Financial Times, New York

Kim-Soon et al.,⁵ explored the theories, the current issues and challenges of HR management, factors influencing HRO and the benefits of HRO in manufacturing industries. They discovered that the most often outsourced functions were security management and workforce management based on qualitative data from six manufacturing industries. High staff turnover rates and problems faced by employees are regular problems and challenges for industries. As a result, manpower and management effectiveness are the primary driving forces behind outsourcing. It was discovered that in manufacturing industries, human resource officers are able to increase their effectiveness in managing manpower, with the focus being on these factors rather than just cost reduction. In order to support the growth of the industry, this research sought to identify which human resource (HR) functions are most frequently outsourced. The top five HR tasks that are outsourced are, according to a national survey, recruiting and selection, training, occupational health and safety, payroll, and employee benefits. These tasks were frequently outsourced for three reasons: to gain specialised HR talents, to increase quality and efficiency, and to free up resources so that HR could focus on its strategic role. Resources, learning, cost-saving, and political factors were identified as the four key outsourcing reasons that explain why HR tasks are outsourced so frequently. These are consistent with reasons for outsourcing in non-HR domains, except from the learning component, Kim-Soon N, Ying CP, Ahmad AR(2016).

It has been discovered that job outsourcing is a natural tendency in today's increasingly interdependent global economy. HRO methods have developed into second-generation outsourcing, which has significant potential to expand further in the future. Sector and firm size had little to no impact on the level of HRO. The majority of the enterprises reported that they had successfully and equitably attained both the cost benefits and the resource-based benefits of HRO. Sim SC, Avvari VM, Kaliannan M. HR outsourcing trends in Malaysia: the undetected tiger. 2016

Theorists, such as Becker (1964) and Goldstein (1986), have made compelling arguments for the performance effects of training. In recent years, the theory has been complemented with several studies that have found positive effects of training on measures of organizational performance such as cost savings and productivity.

according to the guidance provided by the Lepak and Snell (1998) model, the Speaker typology (Greer, 2001), and the Baron and Kreps (1999) model, Payroll activities are of low strategic importance, are transactional in nature, are non-unique, and do not offer a source of competitive advantage, hence enterprises should outsource them to improve firm performance.

This study used a sample of manufacturing organisations to examine HR outsourcing methods and their impact on financial, innovation, and stakeholder performance indicators in an effort to throw more light on the relationship between outsourcing and firm performance. Our findings imply that some HR outsourcing operations do in fact have a considerable, advantageous impact on firm performance. Particularly, our results show that outsourced training improves stakeholder performance as well as creativity. Additionally, it was discovered that payroll outsourcing had a favourable impact on company innovation. Abdul A. Rasheed, Charles R. Greer, and K. Matthew Gilley Organizational performance and human resource outsourcing in manufacturing enterprises, 2002.

In this study, we discussed studies on the practise of outsourcing human resource management in SMEs. Three cross-sectional surveys conducted between 2009 and 2018 are the foundation of this article. Managers of medium-sized businesses gain more from outsourcing than do those of smaller businesses, and as a result, they can reduce HRM expenses while improving quality by working with suppliers who have specialised knowledge and experience. Gumundur Kristján Skarsson and Ingi Runar Edvardsson, 2021.

Organizations nowadays are researching the world to build strategies for manufacturing and supply chain sourcing outside their own nation due to the expenses of travel, local labour contract restrictions, and available low-cost sources (Harries 2012)

Companies have been driven by rising global competition to develop and implement international purchasing strategies that centre on lowering prices and improving quality, fulfilment, manufacturing cycle times, responsiveness, and financial conditions, as extensively reported in academic literature (Gianluca, 2013). According to estimates from 2008, the global market share for outsourcing training was between 5 and 6 percent, with India leading the pack with Ksh. 1,417 billion from training outsourcing and Ksh. 3900 billion from IT outsourcing training (Kemibaro, 2010). To reduce costs, boost quality, and encourage innovation, manufacturers have found it essential to build an effective supply chain and utilise global resources. The most successful demand-driven global value chain firms are those that have outsourced payroll along with the surge in globalisation (Rizza, 2012).

Payroll processes need to be evaluated by businesses in order to choose the best approach and maintain control over this crucial function because they can be expensive and complex. Perhaps the most transactional, regular HR activity is payroll processing, which is also the most outsourced HRM task (Norman, 2016).

The results demonstrated that there was consensus that training should be outsourced. It was advised that doing so would introduce fresh perspectives from outside trainers and also provide staff with the top skills necessary for even more competitive employment. Additionally, this lessened issues with duplication and errors. Because it helps to provide staff with the crucial skills for new systems, it also aids in lowering resistance to change. Training and development, bettering staff performance, boosting staff retention, and helping you hold onto qualified people are all factors that contribute to employee engagement. Employees agreed that recruiting should be outsourced to professionals and companies who specialise in recruitment as one of their primary activities because recruitment is not a constant activity in an organisation and doing it in-house could result in a 42 higher cost. James Kibe Mwangi(2017).

According to Peteraf (1993), a company's resources and capabilities are essentially heterogeneous. As a result, it should concentrate on its core competencies and the effective use of its resources, and only outsource tasks that do not require strategic resources. The company's competitive advantage can be preserved in this way.

Gilley and Rasheed (2000) identified three factors that contribute to improved organisational performance. First first, outsourcing non-strategic tasks frees the hotel to focus on the tasks that it can actually do well. By allowing the company to be more inventive and skilled in particular tasks, this concentration can enhance results. Second, increased outsourcing of tasks requiring non-strategic resources can lead to better service quality (Dess, Rasheed, McLaughlin, & Priem, 1995). This is because a specialist supplier focuses their efforts on a narrow range of tasks, producing superior results than internal execution. Last but not least, outsourcing hotel activities with little strategic value can save expenses and boost organisational performance.

Akinbola (2012) conducted research on how outsourcing techniques affect the organisational performance of the fast food sector in Lagos. This study's limitations stem from how quickly

Nigeria's fast food industry was evolving and expanding at an explosive rate. To obtain primary data for the proper study questions to be asked and proper testing of the three hypotheses, 300 questionnaires were given to 10 selected fast food organisations in Lagos. According to the study's empirical findings, outsourcing has so far had a favourable impact on the fast food industry's performance and has helped the sector lower operating costs.

Power, Desouza, and Bonifazi (2006) state that corporations outsource because of cost savings, a focus on core business functions, access to resources and knowledge, and an increase in the sophistication of information technology. Considering the decrease in telecommunications costs, the increased level of digitalization and informational tools, and other collaborative tools.

CONCLUSION

The findings imply that some forms of HR outsourcing operations do, in fact, have a considerable, favourable impact on corporate performance. Particularly, our results show that outsourced training improves stakeholder performance as well as creativity. Additionally, it was discovered that outsourcing payroll had a favourable impact on company innovation. Although it was found that business size does not have any moderating impact on correlations between outsourcing and performance, further analyses of organisational and environmental circumstances offer a potential direction for future research.

Since the 1990s, organisations and businesses have adopted the concept frequently for a variety of reasons. Due to the fierce rivalry for customers in the banking industry, numerous banks have turned to outsourcing as a survival tactic. Among other arguments put up for outsourcing human resources, the following is one: Many businesses choose to outsource their need for professionals to carry out their duties because hiring them internally would be expensive. Miao Miao, Teng Qian, Kouyate Boh Aisaata, 2019)

The majority of the enterprises reported that they had successfully and equitably attained both the cost benefits and the resource-based benefits of HRO. Considering the potential for developing knowledge and how it will be used, the expense of gaining internal facilities in comparison to using an external service, and other factors, one must decide whether to hire more people or outsource one or more tasks. Additionally, businesses should decide if outsourcing is acceptable for a one-time job or a long-term contract. Any reservations should be discussed with management, and any issues should be brought up with them. In the same way, seek input from employee reps and banish worries about job redundancy. Be mindful of the feelings of workers whose jobs will be significantly impacted by the outsourcing decision. Give them adequate time to accept the new procedures and vendors. 2018's Uma Bhushan, Jasmeet Kaur, Rajashree Gujarathi, and Seetharaman

The results imply that outsourcing human resources has a significant impact on people's or employees' job satisfaction in many businesses.

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IMPACT OF ART AND CRAFT ON INDIAN RURAL MARKETING

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ABSTRACT

The purpose of this study is to analyze the existing state of rural marketing in India, as well as the potential and problems that the rural market brings, considering how diversely populated India's rural customers are. India has a rich cultural legacy, and the country's cultural variety produces a wide range of outstanding art and craft goods. Instead of using sophisticated technology to make numerous things, the art and craft sector employs traditional manual techniques for marketing. Despite the fact that the art and craft business employs millions of craftspeople, it is relatively little in terms of rural marketing. Despite the fact that various government and non-government projects, research studies, and financial/marketing assistance schemes are in place to protect the interests of artisans involved in preserving India's heritage in the form of handicrafts, the outcome is still insufficient. The current research study focuses on the issues and challenges those craftsmen in the industry face, as well as their strengths and possibilities. An attempt has been made here to showcase the marketing opinions of rural art and craft producers. This research may provide direction and guidance to government or non-government actors and policymakers in determining various means, methods, and efforts to improve the incomes of rural artisans; to raise awareness and motivation in them to take advantage of national and international market opportunities; and to assess the needs for training, capacity building, innovations, and institutional support.

Keywords: Rural Marking, Art and Craft, Rural Development, Building capacity

INTRODUCTION

Rural marketing has been on the increase in India for the past few decades, and large international firms are eager to break into this lucrative market, which represents for 70% of the Indian population. There is a movement from urban to rural markets. The causes for this transition are several, including urban market saturation and a rapid increase in the number of rural customers who are growing at a quicker rate than their urban counterparts. The Census of India, the Planning Commission, and the Reserve Bank of India all have various definitions of rural in India. From the early 1960s through the mid-1990s, rural marketing and its concepts altered as a result of the green revolution. According to the 2011 census, 68.84 percent of India's total population lives in villages, hence any national development strategy must include the development of the country's rural areas. Rural development is a process that tries to improve the well-being and self-realization of individuals living in rural regions via a group effort. Because each group and location has distinct qualities that may be moulded into small scale or cottage businesses, Indian communities have a large number of art and artisans. Mahatma Gandhi's thoughts on handicrafts and self-sufficiency were inextricably linked to his views on society's industrialization. Gandhiji thought that industrial civilizations were built on the endless manufacture of goods, which he believed encouraged greed, which led to rivalry and, eventually, bloodshed and war. Gandhiji sought to resurrect the villages, their craft industry, and their customs, and turn them into symbols of a society based on self-sufficiency and self-regulation. He was convinced that if a person, a town, or a country became self-sufficient, it might become truly autonomous. As a result, his definition of rural development was wide and inclusive, emphasising the economic, political, social, educational, ecological, and spiritual aspects. The conventional notion is that Indian art and craft have been recognised globally for generations, but the reality is painful and bizarre, as impoverished rural handicraft artists living and starving in some dark parts of the country has no reputation or recognition. The actual and

genuine number of such craftsmen is unknown due to a lack of statistical data. This vast cultural legacy is under attack from both within and beyond for a variety of reasons. Because the rural market and its inhabitants are so large, there is no precise definition. Corporations interested in entering the market should be aware that rural markets in India are not the same as urban markets; to succeed in the rural market, you must first understand the rural customer before selling your products and services. Experts have been interested in rural marketing research because of the methods that different organisations have tried to implement their marketing mix of the Price Place Promotion Product, which has evolved into the 4As of Rural Marketing: Availability, Affordability, Acceptability, and Awareness.

Many Challenge Faced by Rural Artisan for Marketing.

- 1) Transportation and Distribution of Products - owing to the rural regions' isolated locations, accessing these places is tough and presents a problem for marketers.
- 2) Mode of contact with Rural Consumers - When connecting with rural consumers, language is a hurdle; marketers must recognize that these people speak their regional languages.
- 3) Low Literacy Rate - When compared to metropolitan regions, rural areas have a lower literacy rate.
- 4) Seasonal Demand - Because the income of people living in rural areas is mostly based on agricultural operations, rural customers' purchasing power is constrained.
- 5) Media and Promotions – Because rural customers are less likely to be drawn to commercials aimed at urban consumers because they are unable to relate to them and feel connected, marketers could use strategies such as puppet shows to appeal to rural consumers.

OBJECTIVE OF THE STUDY

Analyzing the reality on the ground, the researchers concluded that adequate tools, techniques, and efforts were required to expose the latent potential and hidden treasure of innovation through scientific study. As a result, this study is a reasonable effort with the goal of examining the opinions of rural art and craft artists on the strengths, flaws, possibilities, and dangers facing the Indian rural marketing sector. The purpose of this research is to look at the rural market and the present state of rural marketing in India. To have a better understanding of how marketers have innovated in the field of rural marketing.

RESEARCH METHODOLOGY

The literature study revealed enough materials and theories to comprehend the current state of rural marketing in India. The current study relies on secondary data gleaned from journals, books, and the internet to compile pertinent data.

LITERATURE REVIEW

(Shrama, 2013) The study paper delves into the reasons for the growth of rural markets and whether we should consider them as a possible growth sector; these reasons include a huge number of customers, improved understanding among rural consumers, growing literacy levels, and developing facilities. Marketers catering to rural markets should deliberately organise their form of communication in a way that the customer can understand, and regional languages play a vital part in this.

(Iyer, 2010) When it comes to investigating rural markets, there are problems and possibilities, according to Vidya Iyer's article. The notion of rural markets is changing and is not stagnant in progress. To understand rural consumers, we must first recognise that their purchasing habits differ from those of urban consumers; their products should be used to their full potential; and, in order to communicate with them, marketing strategies designed for urban areas will not be successful unless they are adapted to fit the needs of rural consumers. Rural Indian customers

cherish their traditional practises and values; literacy, as well as their multiple languages that vary by location, plays a part in properly connecting with them.

(Menon & K, 2008) Companies have not targeted rural markets specifically in their advertising campaigns for the past fifty years, but this is changing and a new trend is emerging now. HUL and ITC made an aggressive push into rural areas, and in the second wave of attempts to enter the rural markets, the focus was on price and promotion, and this phase saw advertising ideas that were geared toward connecting with rural consumers. The third development was the formation of an environment that was favourable to rural marketing and its growth; as a result, marketers evolved in designing new goods specifically for rural consumers (customisation). This aided in raising awareness of rural markets and led to the establishment of marketing companies dedicated to improving and evolving rural marketing.

(Rani & Shrivastav, 2014) According to the findings of the study, while engaging with customers in the rural sector, we need to raise public awareness and show to them for a better comprehension. Companies must develop vans as a mode of transportation in order to address transportation distribution difficulties, and salespeople must be ready to work in distant locations in order to achieve higher penetration.

(Kumar & Dangi, 2013) In their research on rural marketing in India, researchers Pawan Kumar and Neha Dangi provide understanding into the stages of rural marketing in the years before the 1960s, 1960 to 1990, and after the mid-1990s, including how rural marketing was known as agricultural marketing before the green revolution, and how rural marketing was eventually known differently from rural marketing. The rural market in India as a whole is undergoing changes at the moment, and the majority of our people lives in villages and cities. We discovered that what rural India purchases are modest yet high-quality units. Companies who were hesitant to tap into the possibilities of rural marketing have discovered that it is a profitable development sector as rural consumers' purchase habits change. The possibility that rural India presents to business platforms is due to the fact that it has a large population.

Rural Artisans in Terms of Marketing

An artisan is professional handcrafters who create products that are either utilitarian or attractive. Individuality and originality are imparted to each object through the use of hands and hand tools. The craftspeople are a vital part of our society. They improve our aesthetic lives by presenting us with finely produced things. They also contribute significantly to our country's economy. In both rich and developing countries, our handicrafts have carved out a distinct place. The term 'artisan' is used to describe those who labour using common or simple tools to create necessities. They mostly rely on locally available resources to produce high-quality goods without the assistance of machines. Therefore, artisans are skilled manual labourers who imagine, plan, and make things with their hands, primarily to meet the needs of the local population. The craftsmen are heirs to the people's traditions, which they weave into their trade, transforming it into an art form. Because of caste and familial ties, most artisans learnt their talents from their family.

Government Efforts for Art and Craft Marketing

Many schemes and programmes are being developed and implemented by the federal and state governments to promote, revive, and preserve art and craft by aiding and empowering craftsmen who work in them.

All India Handicrafts Board

The Board's two branches, Development Commissioner (Handicrafts) and Development Commissioner (Handloom), are both under the jurisdiction of the Ministry of Textiles, Government of India. The Department of the Development Commissioner Handicrafts (D.C.H.) is the central government's main body for implementing all handicrafts programmes. It aids the

government in the creation and execution of policies to promote and develop handicrafts. It discovers new/lesser-known or languishing handicrafts and the issues they face, as well as the obstacles they face, and provides marketing, financial, and technological aid to craftsmen, empowering them through various development plans.

The Khadi and Village Industries Commission (KVIC)

The KVIC was established with the economic goal of manufacturing marketable items, the social goal of giving work, and the overall goal of empowering the underprivileged and fostering a strong rural sense of community. In collaboration with other rural development organisations, the KVIC is developing, organising, promoting, and executing different programmes for the development of khadi and village industries in rural regions.

Export Promotion Council for Handicrafts (EPCH)

The Export Promotion Council for Handicrafts (EPCH) is a governing body of handicrafts exporters whose mission is to support, maintain, promote, and expand handicrafts exports. The Commission provides members with useful information, guidance, and support in the areas of quality of design development, technical advancement, innovation, and standardised manufacturing, among other things. It conducts handcraft fairs and exhibitions throughout India, as well as workshops and assistance with international trade fair participation. As a result, it seeks to establish a reliable image and reputation for Indian handicraft exporters on the international market.

The Handicrafts and Handloom Export Corporation of India Ltd. (HHEC)

India's Handicrafts & Handlooms Export Corporation is tasked with boosting exports and maximising potential. HHEC has developed tight links with Craft Cooperative Societies and Weavers Associations in a number of Indian states, allowing it to provide a diverse range of handcraft and handloom items. It has been working hard to link more and more rural businesses and artisans so that everyone may profit from the global market's potential.

Innovations in Rural Marketing and Rural Marketing Strategies in India

ITC E-Choupal- ITC E-Choupal is a project launched by the Indian Tobacco Company in 2000 to link its workers to the most up-to-date traditional agricultural knowledge using technologies. It reinforces the problems exist and the involvement of weak intermediaries by connecting farmers via the internet, providing them with understanding of crop profit margins and other relevant information that helps them increase productivity. It is now one of the largest internet innovative initiatives that caters to rural India. The local farmer has been empowered by ITC E-Choupal, and this information is assisting him in agriculture so that he may make the best decisions possible. And over 100,000 communities are covered by the venture's network.

Asian Paints- Asian Paints' marketing plan was to promote its brand to villagers by painting the houses of village leaders to demonstrate that the paint doesn't peel off, as well as employing powerful persons among these villagers, who have an influence on the rural people because they look up to them. In addition, this presentation heightens the effect of the rural customer experience, according to.

Godrej Aadhar and ChotuKool- Godrej Aadhar, a retail outlet of Godrej Agrolet, was developed to give a service-based solution to its farmers. It intends to provide solutions and help to farmers about agricultural inputs like as meteorological information, soil and water testing. Chotukool is one of the most brilliant instances of rural marketing innovation, since it is a low-cost product that allows rural customers to preserve their food in a cost-effective manner. Rural people are unable to purchase refrigerators due to high pricing and lower usage than urban consumers. Chotu Kool is powered by a low-voltage battery and is tiny, compact, and portable.

The Opportunities in Art and Craft in Rural Marketing

Large Market - The rural market's population statistics alone demonstrate very vast the market's potential is, and how, if exploited to its full potential, it may lead to unprecedented growth.

Awareness-Rural consumers are aware, contrary to popular belief, that they may be unaware of products and features, and as a result, they seek products that provide good value for their money.

Rising Literacy Rates- As the rural population's literacy rate rises, so does demand for new items to be used by rural consumers, particularly those who live in rural areas.

Risk Reduction during Recessions - While both urban and rural markets are affected by recessions in various ways depending on the sectors affected, such as primary, tertiary, and secondary, firms who invest in both can mitigate this risk.

CONCLUSION

Rural marketing is evolving and developing, and businesses who wish to reach out to this 83-million-strong prospective client base must adapt and innovate their methods accordingly. The rural population carries with it both chances and obstacles that must be won and overcome, accordingly. Marketers must establish a relationship with rural customers and then design and sell items based on their wants and desires. Rural youth, coupled with shifting literacy rates among rural customers, will play an increasingly important role in the future. Rural marketing innovations have had an influence on the lives of rural customers and will continue to do so in the near future. The growth of rural markets is also a step toward the nation's development. The government, NGOs, and Self-Help Groups all play important roles. The rural market has a lot to offer.

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IMPACT OF EFFECTIVE LEADERS' COMMUNICATION COMPETENCIES ON EMPLOYEE ENGAGEMENT AND ORGANIZATIONAL GOALS: AN INDIAN IT BPM INDUSTRY PERSPECTIVE

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ABSTRACT

Purpose –The purpose of this study is to create a theoretical understanding of the state of leadership communication and its development with special reference to Indian IT industry. The intent is that the article can contribute to future research and development of leaders' communication competence. A structured questionnaire was designed with constructs including 'Perceived Leadership communication Competencies Questionnaire (PLCCQ) and 'Employee Engagement Questionnaire' on five-point Likert scale in order to achieve the identified objectives. The questionnaire was pilot tested with a sample of 30 IT Professionals. Reliability statistics were used to evaluate the questionnaire's validity. The significance of leadership communication, identification of the key communication competencies of leaders having impact on employee engagement and organizational goals have been articulated in this research. The leaders can develop their communication competencies and put into practise strategies that would really increase employee engagement in their organisations. This could increase the organization's overall effectiveness and possibly lower levels of burnout, absenteeism, and attrition.

Keywords: Leadership communication, Communication Competencies, Communication challenges, Employee Engagement, Organizational Goals, Leadership development

1. INTRODUCTION

Due to its many real-world commercial applications, employee engagement (EE) has elevated to the status of a top strategic goal for senior executives of firms and an important academic topic. According to Witemeyer, engaged workers exhibit a range of activities that may be beneficial to their employers (2013). Going above and beyond, complimenting the business, collaboration, proactive problem-solving, working late, putting in extra hours, helping coworkers, sharing knowledge, contributing creativity, and taking part in organizational conversation are some examples of behaviors which exhibit employee engagement.

A general acceptance that has emerged, contends that motivated individuals perform better on the job and interact effectively with one another in teams and departments provided they are well-engaged at work.

According to studies, motivated employees "go the extra mile" for their employers, their coworkers, and themselves. Consultancies and research businesses assert that employee engagement is directly related to their ability to succeed in business (Gallup 2018; Willis Towers Watson 2018). Employee involvement has traditionally been seen as a supplemental task, completed only when necessary. However, the importance of employee engagement has substantially increased due to the changing demands of both employers and employees in the post-pandemic era (Jain Adit, 2022)

The IT-BPM sector has developed into one of India's most important economic engines, contributing significantly to the GDP and wellbeing of the nation. The National Association of Software and Service Companies (NASSCOM) reports that the Indian IT sector accounted up 8% of India's GDP in 2020, and by 2025, it is anticipated to account for 10% of India's GDP.

Even though studies have been conducted on how leaders' leadership styles affect employee engagement, little research has been done specifically on how a leader's communication promotes that engagement. Therefore, in order to close this gap, the current study intends to provide a framework for "leaders' communication competences" that would allow leaders to successfully engage and align their workforce with organizational goals in order to drive strategy.

2. LITERATURE REVIEW

Numerous empirical studies have been conducted and are included in the literature on the recommended topic of employee engagement. Work engagement, according to ethnographer Kahn (1990), comprises three things: people who are physically involved, aware cognitively, and empathically attached to coworkers. Kahn was the first to define engagement as "the harnessing of organizational members' selves to their work obligations." Rothbard (2001) defined engagement as a psychological state that consists of two elements: absorption and attention. "Becoming engaged in a role" and "the intensity of one's concentration on a role" are two definitions of absorption. Dedication is characterized as a sense of purpose, inspiration, pride, and excitement. Vigor is associated to strong energy levels and mental toughness. Finally, absorption is characterized by being contentedly absorbed in the work, which can be thought of as a ubiquitous flow condition (Csikszentmihalyi, 1990).

Due to a serious shortage of digital capabilities, the Indian IT-BPM business is having trouble finding qualified employees. The quarter from July to September 2022 saw a sharp increase in voluntary attrition, according to NASSCOM. The workforces of long-standing software organizations are also being lost to hyper-scale startups led by the next generation. With plenty of cash, startups are wooing software workers with above-market salaries, accommodating work hours, and generous employee stock options (ESOPs). The Indian IT industry is now at the forefront of employee engagement as the global business environment is witnessing all these quick advances.

This study's major goal was to investigate the impact of leaders' communication skills on employee engagement in general. An increasing body of research has shown that communication is crucial to the leadership process, contrary to earlier research that considered it as a supporting component (Jian & Fairhurst, 2016). It has been claimed that communication is the key to effective leadership (Johansson, Miller, & Hamrin, 2011, 2014; Tengblad, 2006). Leadership is aided by communication since it is connected to organisational success (Ruck & Welch, 2012, Hamrin, 2016a; Nordblom & Hamrefors, 2007). Communication awareness, acquaintance, attitude, and ability are four essential human qualities that influence how leaders communicate, according to Fairhurst (2005), Simonsson (2002), and Johansson (2003). For leadership, communication is crucial. However, communication experts have not systematically investigated the conditions for effective leadership, and most leadership theories pay little attention to communication (Cohen, 2004, p. 177).

Bhatla (2011) identified organizational culture and communication as key factors influencing employee engagement in a study on worker performance in relation to Indian banks. Leadership communication helps the company achieve its goals and gains their support by clearly expressing the organization's values to all employees. Communication abilities among executives are crucial for ensuring staff participation (Bindle and Parker 2010; Papalexandris and Galanaki 2009; Bakker et al. 2011, as quoted in Welch 2011). Leaders aggressively seek out employee suggestions by analyzing their needs and expectations in order to improve organizational performance (Adelman, 2012). Employee trust is increased by having open discussions regarding organisational challenges, management decisions, and daily operations. As evident from various researches high levels of employee engagement were anticipated to boost commitment and decrease attrition in this context. Because there are few studies about

relationship between leaders' communication competencies and its impact on employee engagement in the IT-BPM industry, this study was undertaken to highlight the extent of that co-relation.

3. CONCEPTUAL MODEL AND HYPOTHESIS

Effective communication abilities are frequently ranked by CEOs and other senior executives as one of the most essential qualities needed for organisational success across all industries and nations, according to prior studies (Barrett, 2006). According to studies on what managers and leaders do at work, they spend 79 to 90% of their day communicating (Mintzberg, 1973; Tengblad, 2006).

Tabak and Lebron (2017) opined that the ability to persuade others and the desire to practise outstanding communication are the two factors that produce effective and powerful leaders; as a result, this further motivates the team and their manager to attain high standards of leadership. Valackiene (2010) have also argued that the more senior a leader is, the greater the necessity for communication skills with the environment, public relations expertise, image management expertise, and employee relationship management expertise. Therefore, the present study combines the constructs of leadership communication competence with employee engagement for better understanding of the key communication competencies especially in information technology industry.

As opposed to just communicating, which all leaders and people do constantly, the original communicative leadership theory put forth by Eriksen et al. (1997) and Hogstrom et al. (1999) claimed that "communicative" leaders are "great communicators." A communicative leader is someone who engages employees in discourse, actively shares and seeks feedback, conducts participatory decision making, and is viewed as open and involved, according to Johansson et al. (2014) who had put forth a definition. They also suggested that four core communication competencies, including structuring, facilitating, relating, and representing, comprise the crucial aspects of a leader's communication behaviour. In order to advance the work of Johansson et al. (2014), the current study identifies the critical communication competences that affect employee engagement in the Indian IT BPM business.

The present study proposes constructs of leader's communication competencies i.e., structuring (SC), facilitating (FC), relating (RC), and representing (REC), as direct determinants of employee engagement in Information Technology (IT) industry.

3.1 Leaders Communication Competencies: Research has identified leader-employee connections as dual relationships within teams or units. The literature has validated the four well-known leader communication behavior categories, which are frequently recognized as regions of activity and meaning and applicable across a number of organisational circumstances (Druskat and Wheeler, 2003; Morgeson et al., 2010). According to Johansson et al. (2014), the set of four communication competencies listed below are the most pertinent to leader-employee interactions at the team or unit level. The leader must proactively develop staff assignments, clarify roles, and then successfully communicate with the employee as part of planning and allocating work. The ability to 'coach and train' describes the leader's approach to assisting employees in acquiring the abilities they need to be successful in their positions. 'Performance feedback' relates to how frequently, constructively, and promptly, leader gives evaluation of employees' work. The leaders' communication ability will be critical to carry out these aspects of the role. The leaders' communication ability to listen without taking offence, exhibit openness to feedback, care about employees' welfare and resolve interpersonal conflicts is crucial while interacting with employees. The leaders' communication ability to represent the unit and his team members in front of higher management to obtain resources, scan the macro & micro environment for important information relating to work and networking with influential people constitutes representing competency.

H1: Structuring Communication Competency positively influences the employee engagement in IT Industry

H2: Facilitating Communication Competency positively influences the employee engagement in IT Industry

H3: Relating Communication Competency positively influences the employee engagement in IT Industry

H4: Representing Communication Competency positively influences the employee engagement in IT Industry

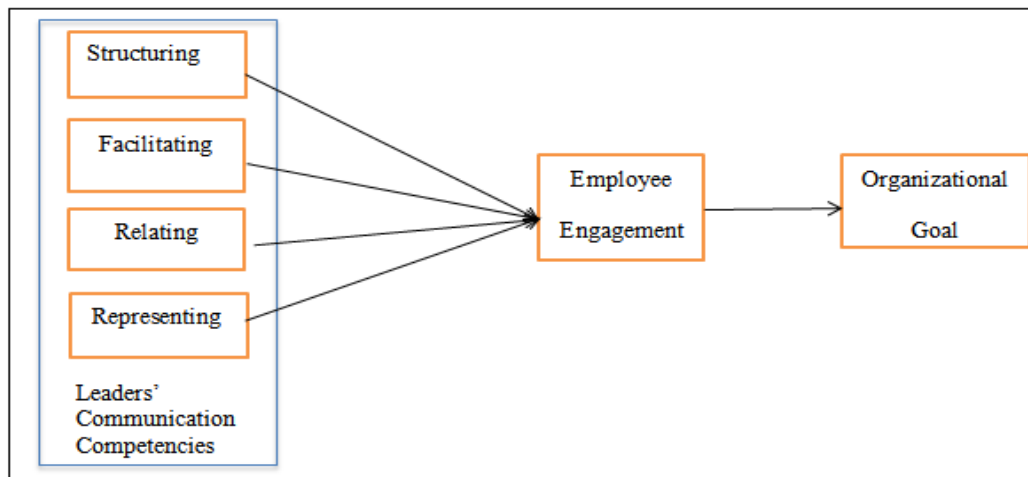


Fig 1: Research Model

4. RESEARCH METHODOLOGY

4.1 Measurement

In order to put the theoretical ideas to the test, a survey was carried out involving respondents from the cities like New Delhi-National capital region, Pune, Bangalore, Hyderabad, Chennai, Kolkata, Mumbai based on their recognition as IT Hubs of India. For the survey, a structured questionnaire with two parts was designed with constructs of Perceived Leadership Communication Competencies (PLCCQ) ((Van Jaarsveld, Mentz, & Ellis, 2019) and Johansson, C., Miller, V. D., & Hamrin, S. (2014) and perceived Employee Engagement (PEE) (Tiwari, B., & Lenka, U. 2020) were created using constructs and items from the literature (refer Appendix A).

The survey was written in English, and linguists checked it for content validity. The questionnaire was pilot tested with a sample of 30 IT professionals during March and April of 2021 in order to pre-test the instrument. The early career IT professionals with less than 10 years of work experience were excluded from the main poll and only mid-level (11-15 years of experience) and senior mid-level (15 years and above of work experience) were the respondents of the pilot testing. The scales' validity and reliability were established by the pilot testing findings. The data from the pilot test were not included in the last round of data gathering to prevent results from being skewed.

4.2 Data

The primary objective of this study was to study the relationship between leaders' communication competencies and employee engagement in Indian IT industry. Two sections made up the questionnaire. The section-A of the survey asked respondents' name, gender, age, job title, total number of years of experience and level of education. Questions about evaluating

leaders' communication competencies and Employee engagement were included in the section-B. Data collection using self-report measurements raises a serious problem called Common Method Biasness. As a result, the surveys contained the Marker item, which has no connection to the variables being investigated (Malhotra & Dash, 2011). The survey participants received soft copy of the questionnaire via email and the survey was conducted through Survey Monkey. The data of each participant was kept completely confidential, and anonymity was ensured. Participants gave their informed consent to administer the questionnaire before it was taken part in the survey. The respondents received comprehensive written guidelines for addressing the opening statements. A response rate of 66% was achieved with a total of 476 legitimate replies (including 366 responses from mid-level professionals and 110 responses from senior mid-level managers). Out of all respondents, 77% of them were men and 23% of them were women.

4.4 Structural Equation Modelling Analysis

Partial Least Square Structural equation modelling (PLS-SEM) was used to further examine the data that had been collected. The model was tested using a two-stage SEM methodology; first, the measurement model was used to assess the validity and reliability of the instrument, and then the structural model was estimated (Anderson and Gerbing, 1988; Schumacker and Lomax, 2010). All of the UTAUT's components, including perceived credibility, were first put through the structural model's paces before being measured. However, a structural model analysis was also done, although it only looked at the UTAUT constructs, which had no real credibility. It was crucial to carry out this method in order to compare the prediction power of the model with and without perceived credibility.

4.5 Measurement Model

Construct reliability, indicator reliability, convergent validity, and discriminant validity of the measurement model were all evaluated. To first investigate the measurement model fit and then assess the validity of the measurement model, a confirmatory factor analysis was performed using the AMOS software (Arbuckle, 2009). To estimate the model's parameters, the study used the maximum-likelihood approach, and all analyses were done using variance-covariance matrices (Hair et al., 2010).

4.5.1 Construct Reliability and Validity

According to Hair et al. (2010), Cronbach's alpha, composite reliability (CR), and average variance extracted can be used to evaluate reliability, convergent validity, and discriminant validity (AVE). All of the constructs have Cronbach's alpha values above the threshold of 0.70 (Nunnally, 1978), and the CR values are all within their respective levels of 0.70, as seen in Table 3. (Hair et al., 2010). Therefore, all the structures show adequate reliability. Additionally, the AVE values of all the constructs range from 0.726 (CG) to 0.838 (ST), which are above the cut-off value of 0.50 as advised by Hair et al. (2010). This ensures the convergent validity for all the constructs (see table 2). Additionally, as shown in Table 3, every construct has a squared root of AVE that is larger than the estimations of their inter-correlation with other similar constructs, demonstrating appropriate discriminant validity.

Table 2: Constructs Reliability and Convergent Validity

Construct	Items	Standardized Loadings	Cronbach's alpha	Composite reliability	Composite reliability	Average variance extracted (AVE)
ST	ST1	0.822	0.932	0.936	0.946	0.838
	ST2	0.827				
	ST3	0.843				
FC	FC1	0.865	0.942	0.944	0.954	0.832
	FC2	0.835				
	FC3	0.785				
RT	RT1	0.693	0.945	0.947	0.956	0.768
	RT2	0.871				
	RT3	0.786				
RP	RP1	0.758	0.943	0.948	0.957	0.736
	RP2	0.767				
	RP3	0.744				
EM	EM1	0.847	0.892	0.897	0.917	0.832
	EM2	0.833				
	EM3	0.835				
PH	PH1	0.793	0.894	0.896	0.934	0.781
	PH2	0.796				
	PH3	0.763				
BH	BH1	0.836	0.833	0.851	0.899	0.794
	BH2	0.765				
	BH3	0.805				
CG	CG1	0.785	0.867	0.867	0.909	0.726
	CG2	0.765				
	CG3	0.823				
OG	OG1	0.894	0.847	0.876	0.954	0.761
	OG2	0.893				
	OG3	0.842				

Table 3: Discriminant Validity

	ST	FC	RT	RP	EM	PH	BH	CG	OG
ST	0.838								
FC	0.755	0.832							
RT	0.754	0.783	0.768						
RP	0.485	0.538	0.531	0.736					
EM	0.9	0.924	0.922	0.235	0.832				
PH	0.579	0.412	0.599	0.469	0.515	0.781			
BH	0.625	0.518	0.663	0.404	0.506	0.675	0.794		
CG	0.584	0.515	0.558	0.357	0.526	0.590	0.581	0.726	
OG	0.522	0.471	0.624	0.255	0.373	0.525	0.544	0.453	0.761

Table 4: Table showing Path coefficients

Hypotheses	Path	Standardized total effect	P values
First order Path Analysis			
H1	Structuring --> Emp Eng	0.306	0.006
H2	Facilitating --> Emp Eng	0.509	0.009
H3	Relating --> Emp Eng	0.382	0.002
H4	Representing --> Emp Eng	0.277	0.000
H5	Emp Eng--> OG	0.247	0.000
Second order Path Analysis			
	Emp Eng--> EM	0.119	0.000
	Emp Eng--> PH	0.375	0.001
	Emp Eng--> BH	0.493	0.002
	Emp Eng--> CG	0.240	0.000

5. DISCUSSION

The main aim of the study is to understand the effect of leadership competencies on employee engagement and organizational goal. The study proposed seven hypotheses. PLS-SEM software was used to study and test the hypothesis. The results of PLS-SEM suggest that all proposed hypothesis of the study is accepted. Among all the different constructs, Facilitating Competency emerged to be the strongest determinant with a coefficient value of 0.523 ($p < 0.001$). 0.509 ($p < 0.001$). This was followed by relating competency 0.382 ($p < 0.001$). The next important factor affecting employee engagement is structuring communication with beta value of 0.306 ($p < 0.001$). Among the four leadership competencies representing competency with beta value 0.277 ($p < 0.001$) was found among the least important. The results of our study are similar to (Boyatzis, Rochford, and Taylor, (2015) and Buse and Bilimoria, (2017) that also stressed on facilitating competency as one of the important factors.

6. CONCLUSION

Examining the link between leaders' communication skills and employee engagement in the Indian environment, and more specifically in the Indian IT-PBM sector, was the aim of the current study. Based on data analysis, the factors that have emerged as the most important determinants of Employee Engagement include Facilitating Communication Competencies, which include "coach and train" & "performance feedback," and Relating Communication Competencies, which include listening, openness, and conflict resolution. Therefore, it is the organization's obligation to develop and implement employee engagement initiatives. To do this, it must create a framework for leadership development that emphasises these components. Other industries where attrition and absenteeism are significant problems can use the study's findings. Similar studies can be carried out in a variety of industries, including hospitality, infrastructure, retail, and education etc. to know the employee engagement levels.

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IMPACT OF INTERNET OF THINGS IN MANAGEMENT COMMUNICATION IN IT SECTOR

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ABSTRACT

“The Internet of Things (IOT) is the interconnection of devices that collect and transmit data over the Internet. A new technology associated with the advent of information systems is a technology that has the potential to revolutionize our world as most technologies before it did. This paper discusses the impact of Information Systems on management and globalization from multiple information sectors. Internet of Things and the web significantly impact decision-making, communication, economics, social, cultural behaviour, science, military, and politics. In this paper, researchers emphasize how information and communication technologies may help businesses prepare for long-term sustainable growth by generating new sources of competitive advantage. The dynamics of the Internet of things and its capacity to produce innovations directly influencing business are covered first. The necessity for improved harmony between short-term and long-term goals for IT sector initiatives is then proposed. In the third section, researchers go through how these new technologies have improved end-user satisfaction, decision-making processes, and the productivity of information professionals. Finally, technology-based businesses will face two primary obstacles: increasing productivity and establishing agile environments. These enable the companies to manage digital information, manage the lifecycle of their technology, and consolidate and simplify their operations within their computing environments.”

1. INTRODUCTION

Technology-based companies must adopt a holistic approach to people, processes, and technology throughout their computing environments to consolidate IT management. Additionally, it requires organizations to work with IT suppliers who can analyse their operational needs, assist in the implementation and ongoing management and communication support of their solutions. Using the Internet of Things, businesses can get real-time insights into everything from machine performance to logistics and supply chain operations [1]. The Internet of Things allows companies to automate processes and reduce labour costs. The Internet of Things is one of the primary drivers behind Industry 4.0, since it enables enhanced automation, data collection, and analytics, as well as workflow and process optimization. Communications management refers to the flow of information within a company or between companies.

The process involves planning and implementing communication methods that reach a company's target audiences, such as consumers, employees, vendors, and media groups. Communication plays an important role in a company's overall health and vitality. To realize IOT systems, a few core components are combined. Things, which resemble some devices, are central to the IOT [2]. Cost, size, energy, or technological constraints often limit these devices' capabilities. Devices typically consist of sensors and actuators, a processing component, a means of communication, and an energy source. A sensor translates changes in the environment into electrical signals, while an actuator transforms electrical signals into physical actions to affect the environment. Control is provided by the processing component, which can range from a simple circuit to a complex chip. Wireless or wired communication technologies can also be used to connect devices”.

1.1. Communication Management Concept

IOT systems usually use messaging protocols such as “MQTT or AMQP, so using this feature for communication management seems logical. The role of message brokers is to mediate communication between computing services and message queues. Since it is impossible to influence the network between the elements of the IOT system (computer services,[3] IOT devices, client devices, etc.) from the point of view of the computing service provider and the client, it cannot be influenced. IOT service providers can have only a limited impact on deployment selection via intermediary mechanisms such as message brokers in communication. It can therefore be reduced to allocating computational resources to these mechanisms.

Furthermore, this concept provides mechanisms that enable systems to respond to changing network conditions by managing and responding to current conditions. As a result of ongoing monitoring of network status, composite services can be updated, including the allocation of additional resources to message brokers or the change of message brokers. The important aspect of inventory management within supply chain management (SCM) [4] is that it connects both manufacturing and pricing. To maximize customer service levels, inventory management aims to minimize inventory costs by setting appropriate inventory replenishment policies and considering various factors.

1.2. Inventory Management and IOT in Different Industries

The system uses IOT technologies to prepare spare parts for the right machine at the right time with the right quantity. As a result, better decisions could be made, and there would be transparency and flexibility between the factories and suppliers. It was possible to improve fleet management and stratify customers better. In the airline industry, there are four types of IOT applications: in-house sourcing, ad hoc pooling, cooperative pooling, and commercial pooling.

1.3. Impact of IOT in IT sector

The Internet of Things (IOT) has attracted significant research attention recently. There will be billions of intelligent, communicating 'things' on the Internet of the future, which is considered part of the Internet of the future. Future Internet devices will be heterogeneously connected, extending the world's borders with physical entities and virtual components. Connected things will gain new capabilities due to the Internet of Things (IOT). This survey examines the definitions, architecture, fundamental technologies, and applications of IOT. Firstly, various definitions of IOT are introduced; secondly, emerging techniques for implementing IOT are discussed; thirdly, some open issues related to IOT applications are explored [5]; finally, the major challenges that need to be addressed by the research community are examined along with potential solutions. In Information Technology (IT), everything that involves the transmission of information or facilitates communication is included, including hardware, software, and telecommunications. Various entities, including the Internet, maintain and reconstitute the network in the Information Technology Sector, including owners, operators, and associations.

Despite IT infrastructure's inherent resilience, its interdependent and interconnected structure poses challenges and opportunities for public and private sector preparedness and protection. A communication management system involves planning, implementing, monitoring,[6] and revising all channels of communication within and between organizations; it also involves establishing and disseminating new communication directives related to organizations, networks, and communications technologies. In communications management, strategies are developed, internal and external communications directives are designed, and information flow, including online communication, is managed. This process helps an organization be systematic as one within the bounds of communication. The relationship between communication and management is closely intertwined”. In communication, “information is exchanged between two or more people, while in management, managers give out information to their employees. In addition, communication and management are synonymous. It is the means of extending

control; a fundamental aspect of project management [7]. In the absence of an effective communications management system, the development of a task can be genuinely constrained from start to finish. Additionally, it provides the fundamental integrity necessary to provide information to all members of the team. Within the association, information must flow descending, upward, and horizontally. Furthermore, it serves as both a master and a servant of project management. It is the component of action, the integrator of the project assembly process. The project manager leads the multidisciplinary plan and construct team, as project management is both a craft and a science. This paper aims to examine trust properties and propose objectives for IOT trust management. A literature review of trustworthy IOT is presented to highlight several open issues and challenges and suggest future research trends. The conclusions of this survey paper can be summarized as follows: We propose a research model for IOT trust management.

2. LITERATURE REVIEW

To maximize energy efficiency in IOT implementations in areas such as battlefields for dense sensor deployments, we developed a knowledge-aware node selection system based on the Knowledge-aware Proactive Nodes Selection scheme to track mobile targets. Based on the prediction accuracy of mobile targets, the KPNS scheme adjusts the available, proactive nodes. By utilizing the leftover energies from the nodes in different areas, KPNS achieves balanced energy consumption.

- F. Terresa-Saenz et al. proposed an IOT-based holistic solution to analyse large and diverse energy-related data. A suggested IOT Energy Platform (IOTEP) provides deployment and installation guides for sensors at the physical level. For real-time data gathering, a data management level is defined that takes heterogeneity into account. It provides key information from sensors to finalize strategies for managing energy-related issues in buildings. The IOT platform is implemented and tested on a real use case of hundreds of sensors in three buildings.
- D.T Huynh et al. examined the energy consumption during the dissemination of multimedia content in D2D communications. The authors use the Genetic algorithm to manage energy consumption and resource allocation. Due to the high energy consumption, the algorithm performs multiple steps on multimedia content using layered multiple description coding [8]. According to the results obtained, the proposed framework enhanced the distribution of multimedia content through D2D. Data acquisition (DAQ) services are critical to dense sensor deployments using the IOT. Data acquisition consistency is dependent on energy management among these large numbers of sensors during the data collection phase.
- To gain consistency in data acquisition, H. Ko et al. proposed an energy-efficient sleep scheduling algorithm (CG-E2S2). For each sensor node, an optimal sleep duration time is calculated using the Markov decision process (MDP), enabling IOT gateways (GWs) to forward enhanced data traffic volumes and improve data acquisition consistency. IOT energy efficiency guidelines are presented in the proposed scheme.
- H.W. da Silva et al. presented multimedia data delivery strategies for SDN clouds. CLASSICO, a Cross-Layer SDN Session Control architecture, is proposed to overcome the latency-critical issues associated with IOT applications. Multimedia content delivery under SDN cloud environments achieves QoS/QoE in IOT applications”.

2.1. Impact of IOT on Inventory Management in Various Industries

The system manages two types of spare parts: consumables and contingents, for a semiconductor company. “With IOT technologies, the system prepares spare parts for the right machine at the right time in the right quantity. It would enable fabs and suppliers to make better decisions and establish transparency and flexibility. Using IOT technologies, reduced inventory

costs and unavailability risks in its aircraft spare parts inventory system. It was possible to improve fleet management and stratify customers better [9].

2.2. IOT and Enabling Technologies

A network of physical objects that are connected digitally to sense, monitor, and interact within the company and between it and its supply chain is the Internet of Things. By facilitating agility, visibility, tracking, and information sharing, supply chain processes can be planned, controlled, and coordinated more effectively. The final layer is an interface layer for displaying information and enabling user-system interaction (Figure 1). Sometimes, the third and fourth layers are merged into one application layer.

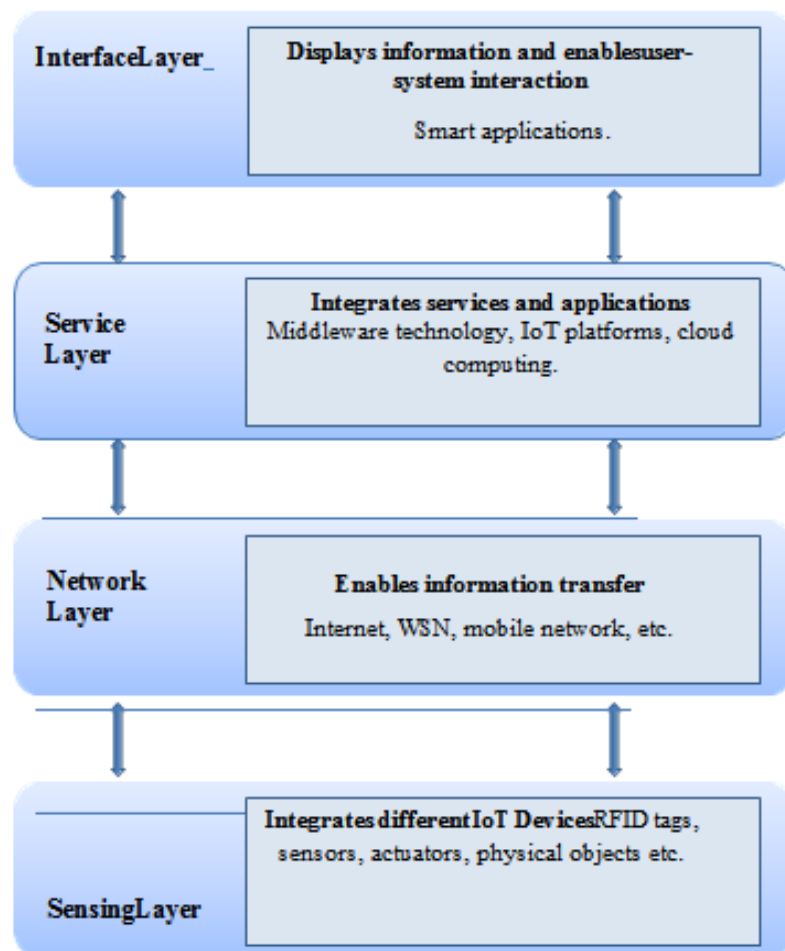


Figure 1: IOT Architecture in Four Layers

3. RESEARCH METHODOLOGY

A framework is proposed for understanding the role IOT can play in supply chain management. In order to understand the potential impact of IOT on supply chains [10], we draw from the literature on resource-based views and supply chain management. An organization's ability to use and control resources to achieve competitive advantage is described, explained, and predicted by the resource-based view theory. "As shown in Figure 2, we propose to investigate the impact of IOT on supply chain capabilities and how a firm can take advantage of those capabilities to meet its challenges. We analyse supply chain management rather than a particular firm or supply chain.

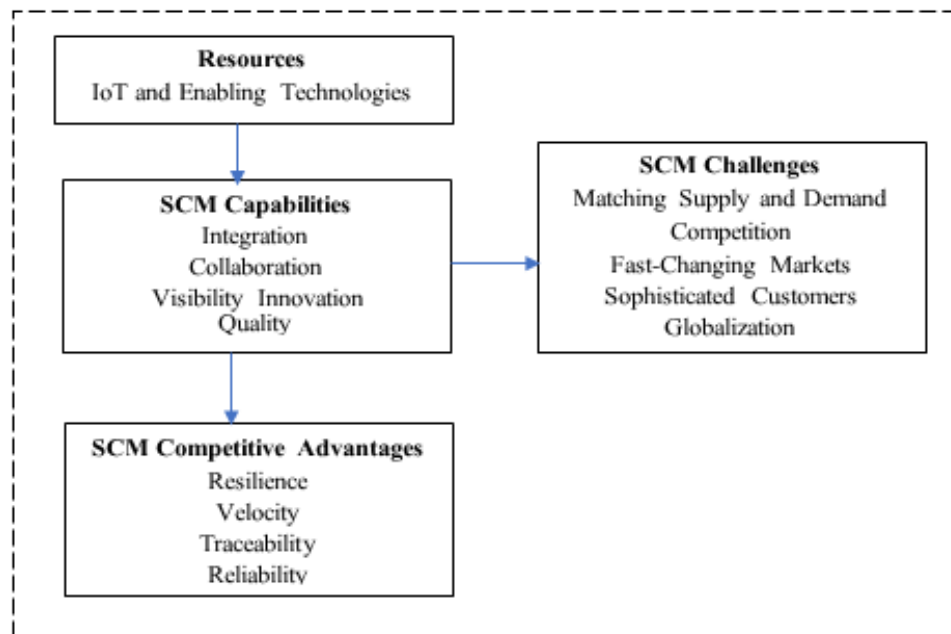


Figure 2: IOT in communication Management Framework

3.1. Communication in Supply Chain Management

This section identifies the main supply chain challenges that must be considered in any effective supply chain management strategy. These challenges include the difficulty of matching supply and demand and sophisticated customers [11]. The challenges can be broken down into three categories, as shown in Figure 3: Procurement and demand management are examples of operational activities that match supply and demand. A market that faces challenges such as competitors' supply chain strategies, changing market dynamics, and an increasingly sophisticated customer who has more marketing power due to easy access to data."

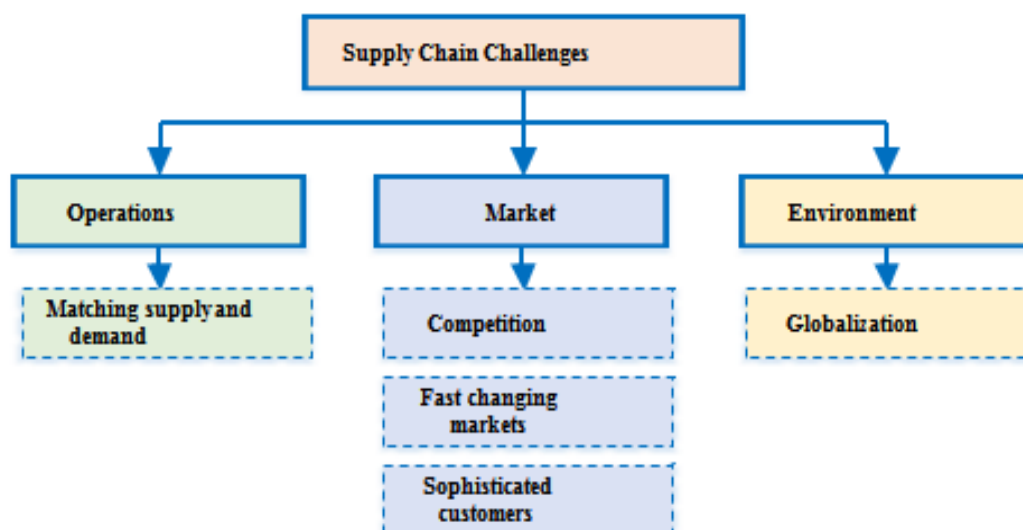


Figure 3: Supply Chain Management Challenges

Environmental challenges resulting from supply chain efforts to source materials and services and serve customers around the market.

3.2. IOT's Impact on IT Supply Chain Management

IOT affects internal and external “integration through RFID technology in supply chains. In addition to reducing inventory and increasing service levels, RFID technology significantly impacts external supply chain integration by optimizing transportation. Information sharing [12], identification, and communication for internal and external integration are some benefits of IOT. Several works have focused on implementing IOT to facilitate information sharing and virtualization for different types of supply chains. The framework suggests that information is the central issue needed by the partners to control their supply chain processes and improve performance (Figure 4). Real-time information provided by an IOT solution reduces the lead time between data collection and decision-making. Various elements of collaboration can be enhanced, such as effective communication, synchronized decision-making, and joint knowledge development. Many researchers have recognized the importance of trust in supply chain collaboration. For collaboration to be successful,” risks and benefits must be shared [13].

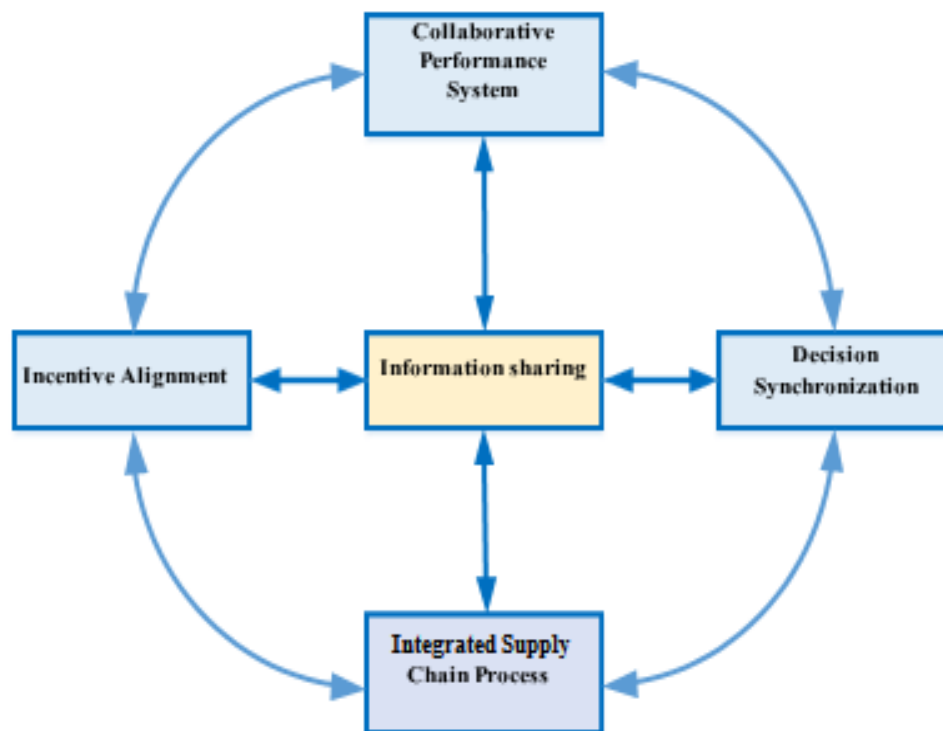


Figure 4: Framework for collaborative supply chains

3.3. IMPACT OF IOT ON SCM CHALLENGES

It is possible to detect “deviations in process parameters and signal signatures and identify patterns that can lead to failure using IOT from connected equipment and systems. Machine learning methods are applied to the massive data collected by IOT sensors to detect such anomalies. Performing maintenance only when necessary and avoiding breakdowns can reduce maintenance costs. In supply chain management, matching supply and demand is a key challenge and a source of competitive advantage [14]. Three factors contribute to the difficulty of matching supply and demand (Asthana, 2018): supply uncertainty, demand uncertainty, and a lack of synchronization among supply chain partners. Figure 5, illustrates how collaboration and integration enhance supply chain synchronization. IOT and other emerging technologies have emerged new business” models and opportunities. With clear visibility and traceability of the product, manufacturers can now support their customers remotely and service their products [15].

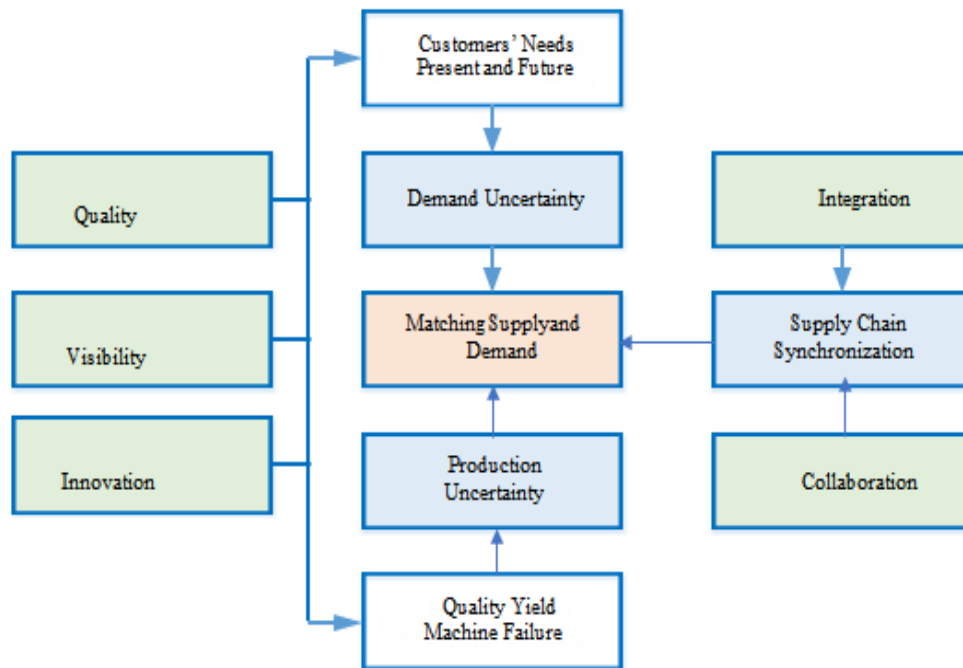


Figure 5: Supply and Demand Matching Capabilities Impacting SCM Challenges

IOT will allow for tailored and dynamic pricing that uses both “competitor and after-sale product data. It is anticipated that inventory costs and safety stocks would go down as inventory accuracy improves and the supply chain becomes more predictable. It is now feasible to create predictive models to estimate the rates of lost sales and substitute purchases using IOT devices that communicate with those of rivals. New decision-making models must be created in order to reap the benefits of IOT in the supply chain. The need for the best wireless sensor network architecture is included in new models [16]. A vendor will have access to both consumer usage data and merchant point of sale data with after-sale active IOT devices. Data synthesis, analytics, and insight sharing with all supply chain partners are all available with secondary (public) and common supply chain private data. This has sparked the emergence of a world where all decision-making processes are driven by big data, which is now widely accessible. IOT will undoubtedly raise privacy and ethical concerns.

The computer environment's lack of standardization may make managing and maintaining it more time- and money-consuming. The standardization of the hardware platform, eliminating duplicate devices, and simplifying and automating the computing processes are all made possible by the tools for managing the IT lifecycle. Studies show that configuring, upgrading, moving, and managing resources account for over 50% of all IT expenses.

Supply chain management (SCM) refers to having the right product in the right quantity at the right time. The pricey, complicated, and fragile nature of traditional supply networks is increasing. The supply networks must be more intelligent if they are to overcome these obstacles [17]. The capacity of IT to improve communication, data collecting, and information transmission allows it to integrate various processes, suppliers, and customers both within and outside. The Internet of Things (IOT) is a network of physically linked digital items that are used for sensing, monitoring, and communication inside a company and between the company and its SC”. Through the use of RFID technology, we monitored the product flow at each SCM level [18]. “At each stage of supply chain management, each product is equipped with an RFID tag and is scanned using an RFID reader and an ESP8266.

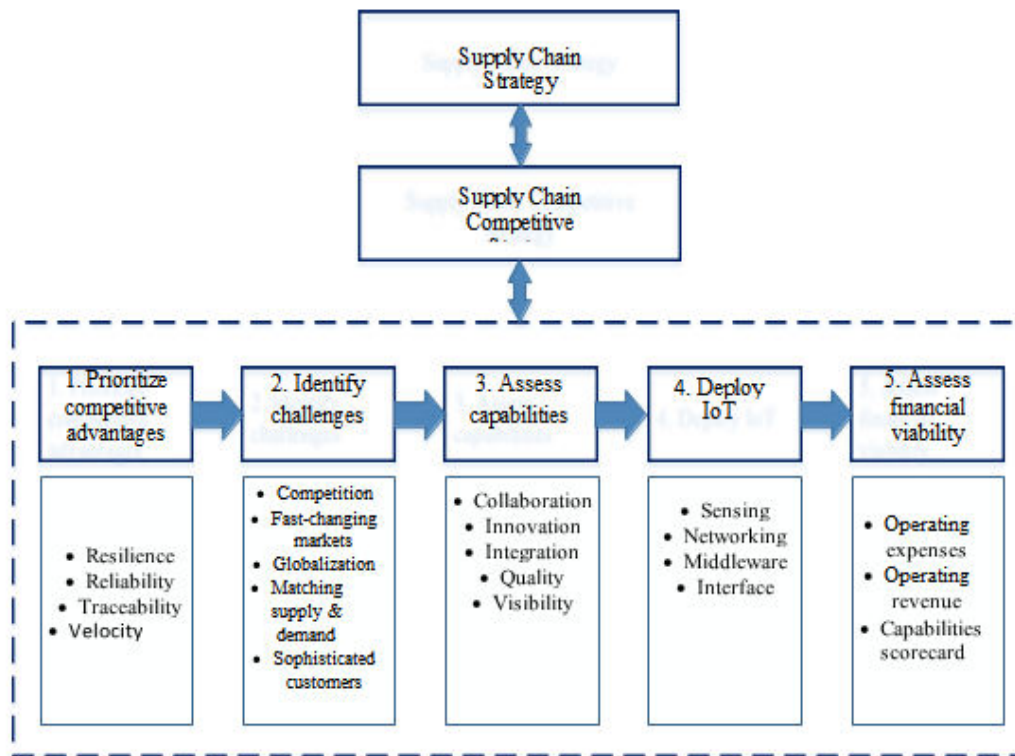


Figure 8: we propose a practical approach to IOT deployment”

This study provided a supply chain management “framework based on IOT technologies. The suggested system automates the process of product identification, traces and tracks items internationally, provides transparency, cuts down on time and costs, and ultimately leads to customer satisfaction [19]. The website, created by the firm management to improve cooperation, also allows suppliers to readily access sales information about their items by entering their login and password. Our website eliminates intermediaries by allowing managers and suppliers to communicate directly through a system, increasing profit for both parties.

One of the best developing options to address these problems has proven to be the Internet of Things. The Internet of Things is a network of wirelessly linked technological gadgets that may be accessed online from any location. Things are items that have been given an IP address and can gather and transfer data across a network without aid from a human being. To achieve IOT trust, DTCT serves as a backbone [20]. This research area focuses on proposing security protocols or schemes suitable for IOT scenarios based on their specific requirements and constraints. Research on the inter-operation or integration of vertical TM mechanisms with other TM mechanisms in different contexts is also lacking. Despite the bright future of the Internet of Things and increasing expectations, significant challenges remain to be overcome not only from a technological standpoint but from a business perspective as well, since the introduction of connected products raises several important strategic and operational questions. IOT's emergence has forced executives, for example, to evaluate the opportunities and threats their companies may face [21]. Due to the Internet of Things”, existing business models may need to be adapted or re-defined. Even entire industry boundaries may have to be re-evaluated as competition shifts and expands. “As rigorous hardware and agile software cultures clash within companies and even during the early stages of product development, fundamental managerial challenges are likely to arise. To meet the needs of connected products, after-sales service processes may need to be modified [22]. Connected products may enable more direct or extended customer communication, requiring new marketing tools.

4. CONCLUSION

With the advent of the Internet of Things (IOT), the question of how to manage data across a supply chain becomes important. To benefit from IOT, supply chains have to have a clear understanding of what data will be collected and by which party. There is also a need to develop algorithms that would ensure no party can infringe on other parties' confidential data. With the increase in the adoption of IOT devices, there will be more incentives for hackers to breach their security. The stakes are even higher in a supply chain as accessing one partner's data portal may provide access to all other partners. It is thus important to study the resilience of such networks to these risks as well as recovery strategies. IT (Information Technology) is a term that encompasses everything that pertains to the transfer of information or facilitates the flow of communication. Several organizations, including the Internet itself, are responsible for maintaining and reconstructing the network in the IT industry on a regular basis. There are several channels of communication that must be planned, set up, monitored, and revised as part of a communication management system in order to ensure efficient and effective communication within and between organizations. Furthermore, it is also responsible for the creation and distribution of fresh communication guidelines for networks, organizations, and communication technologies. In this study, we examine the characteristics of trust and suggest possible goals for the management of trust in the IOT. This paper provides an overview of the literature on trustworthy IOT in order to highlight some of the unresolved problems and difficulties of the field.

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“INDIAN SPIRITUAL GURUS - THE NEWBIE GODS OF CONSUMER GOODS”: EXPLORING THE ANTECEDENTS OF BRAND LOVE

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ABSTRACT

The goal of this paper is to fully grasp and present the necessary information regarding the products sold and promoted by Spiritual Gurus in India. Spiritual Gurus are widening their reach among the populace not just through their teachings but through products as well and targeting the huge desi segments which was ignored by the multinational FMCG companies. There are only few countable number of studies contributing to literature for the factors leading to purchase of products sold and endorsed by Spiritual Gurus. This study investigates the antecedents of Brand Love for the products sold and endorsed by Spiritual Gurus in India with special reference to Patanjali Ayurved Limited. The factors were Brand Trust, Brand Credibility, Perceived Value and Brand Image was tested empirically to show their relationship with Brand Love for products sold and promoted by Baba Ramdev in India. Research survey was done using quantitative analysis and the data was collected through online questionnaires filled out by 195 customers visiting Patanjali stores of North India. Correlation analysis and Regression Analysis was used for the data analysis. The result shows that Brand Love (BL) is affecting by all the factors i.e. Brand Trust (BT), Brand Credibility (BC), Perceived Value (PV) and Brand Image (BI). Brand Trust (0.348) came out to be strongest antecedent influencing Brand Love followed by Perceived Value (0.336) and then Brand Credibility (0.198). Brand Love is least influenced by Brand Image (0.131). The results will be helpful for Spiritual Leaders who are also playing the role of celebrity business founders and brand endorsers and other related stakeholders in formulating various marketing strategies on how to attract customers and communicate and position brands in a way that they connect themselves to the customer. The study will make significant contribution by exploring the intensity of brand love and must understand the emotional side of brands to create synergy in their marketing efforts.

Keywords: Spiritual Gurus, Brand Love, Brand Trust, Brand Credibility, Perceived Value, Brand Image

1. INTRODUCTION

India has always been known for its spiritual leaders who have not only guided the nation to be unified, but have also preached peace and service to mankind. In the recent few decades India has seen emergence of Spiritual Gurus who are super influential and have become a celebrity and a brand on their own. Spiritual gurus are the new face to the FMCG sector the sale of their products and services are increasing with a rapid pace in India. People are consuming these products as they are ayurvedic and do not contain any adulteration. The products sold by these gurus are so popular that they are giving tough competition to giant MNCs and domestic companies that have been deep-rooted in India for several decades. The spiritual gurus in India are not only changing the behaviour of their followers but are also prompting them in changing their consuming behavior (Sardana et.al. 2018). Spiritual leaders in India like Baba Ramdev, Sri Sri Ravi Shankar, Mahant Swami Maharaj and Jaggi Vashudev are among those leaders who have started lending their names to FMCG products and have entered the business world in India. Old ideology of market segmentation is no longer found suitable for today's turbulent markets and thus is being replaced by marketing strategy of Mass customization, in an era dominated by high individual customization. Consumers of today are more health conscious and are maintaining good quality of life. Failing to understand the changing consumer

preferences towards safe and healthy products by FMCG companies has given PAL an opportunity to make its presence by giving its customers the widest product portfolio.

The most important person behind the success of PAL is Baba Ramdev (Pandey & Paul, 2020). Baba Ramdev through his product offerings offers a unique blend of Ayurveda and Vedic philosophy to provide value for his customers. This management guru knows that invoking the swadeshi sentiments through his offerings has a clearly distinct competitive advantage that his set of competitors (MNCs such as Unilever, Colgate and P&G) can never fight upon (Khandelwal, 2019). His national appeal and popularity as a yogi have helped him establish Patanjali along with his disciple Acharya Balkrishna, who holds the majority stake in the company. There is a need to understand on what parameters are the purchase decisions of Indian consumers influenced or brand resonance can be created to buy products sold and endorsed by spiritual gurus. It is important to understand the role play of spiritual leaders and how they are influencing the Indian FMCG markets. This study will increase knowledge base of Spiritual Brands in Indian reference and the role play of Indian spiritual leaders in impacting the Indian FMCG sector and filling the research gap given by previous researchers. There are few countable number of studies contributing to literature for the factors leading to purchase of products sold and endorsed by Spiritual Guru focusing on aspects like-Intrinsic Religiosity, Extrinsic Religiosity, Pragmatism, Normative Community Pressure, Value Perception, Purchase Intention, Spiritual Orientation (Spiritual Psychology, Spiritual Experience), Product Orientation (Product Attributes, Wellness Product, Product Loyalty). But none of the study has focused on branding aspect. This study have framed a conceptual framework based on constructs that define consumer emotions. This study will suggest drivers of consumer emotions based on literature which will lead to "Brand Love" for the products that are made and endorsed by these Spiritual Gurus. This will be a novel research based on emotional side of customers for Spiritual Brands as only few studies have studied on parameters of purchase intention for the products sold and endorsed by Spiritual Gurus.

2. THEORETICAL BACKGROUND AND CONCEPTUAL MODEL DEVELOPMENT

Researchers in last few years have considered brands as relationship partners (Fetscherin & Heinrich, 2015), further they are consider to express themselves. According to Grace et al., 2018 and consumers had interacting with brands. During early 2000s and in later years emotional aspect of branding like brand love (Carroll and Ahuvia, 2006), brand resonance (Moore and Wurster, 2007), brand sacredness (Das and Mandal, 2016) and brand fidelity (Grace et al., 2018) start penetrating. Therefore Spiritual Gurus should communicate and position their brands in a way that a long term relationship will be build.

The theoretical grounding of the study include 'Brand Trust', 'Brand Image' 'Brand Credibility' and 'Perceived Value' in relation to 'Brand Love' which help in maintaining customer relationship.

2.1. Antecedent of Brand Love

The emotional connections as well as symbolic consumption that are established with brands by consumers signifies Brand love a recent marketing concept (Batra et al., 2012) and plays strategic role in building and maintaining consumer relationship with brands (Kohli et al., 2014, Turgut et al., 2015).

Brand Love is a real emotion and more than a feeling (Ahuvia, 2005) and is irreplaceable (Albert and Merunka, 2013) further very important for business as it influence word of mouth (Carroll & Ahuvia, 2006). Since Spiritual gurus are preachers and have responsible in nature and maintains integrity. Brand Trust increases confidence of customer towards product (Chiu et al., 2010) leading to love towards brand (Drennan et al., 2015). Brand Image strengthen the competitive position of brand (Al-Haddad 2019). Brand credibility is about believability of

product (Erden et al., 2004) and it enhances customer recall value (Goldsmith et al., 2002). Perceived value is the perception of client towards brand benefit (Kotler et al., 2016) and the sum value from the utility of product (Calvo-Porrall et al., 2017). The study forms the hypotheses given below-

- **H1:** Brand Trust impact Brand Love for the Patanjali Ayurved Limited (PAL) products that are sold and endorsed by Spiritual Guru?
- **H2:** Brand Credibility impact Brand Love for the Patanjali Ayurved Limited (PAL) products that are sold and endorsed by Spiritual Guru?
- **H3:** Perceived Value impact Brand Love for the Patanjali Ayurved Limited (PAL) products that are sold and endorsed by Spiritual Guru?
- **H4:** Brand Image impact Brand Love for the Patanjali Ayurved Limited (PAL) products that are sold and endorsed by Spiritual Guru?

The conceptual framework for the study is given Figure 1-

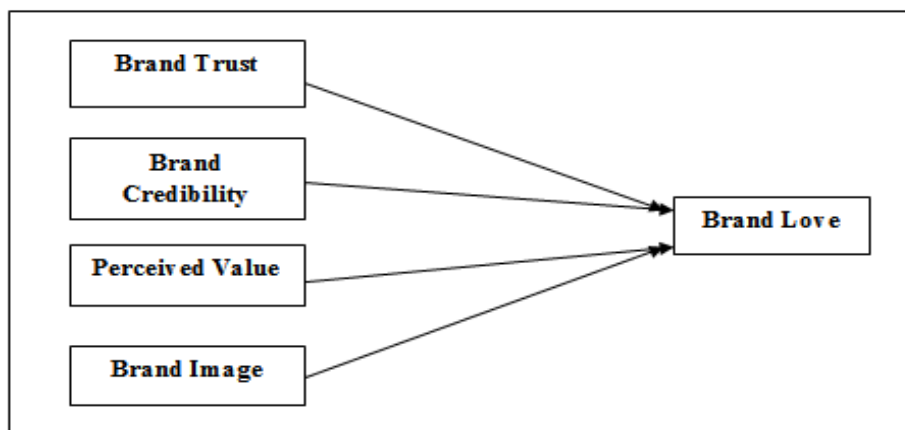


Figure 1

3. METHODOLOGY

The study covers the Western Part of UP and include Agra and Mathura region. A structured questionnaire will be prepared in English which will include questions and scales on all concepts included in hypothesis viz. “Brand Love”, “Brand Trust”, “Brand Image”, “Brand Credibility” and “Perceived Value”. The customer visiting Patanjali Ayurved Stores in Mathura and Agra region will comprise the sample size. Data was collected through convenience sampling and a sample of 195 respondents is selected for administering the questionnaire. The constructs have been adapted from the sources given in Table 1.

Table 1

CONSTRUCTS	ADAPTED FROM
Brand Trust	Gurvies and Korchia (2002)
Brand Image	Salinas and Pérez (2009)
Brand Credibility	Erdem and Swait (2004)
Perceived Value	Sharma et al. (2021)
Brand Love	Carroll and Ahuvia's (2006)

4. DATA ANALYSIS AND DISCUSSION OF RESULTS

4.1 Descriptive Statistics and Correlation Analysis

The descriptive statistics (mean and standard deviation) and correlation analysis has been depicted in Table 2. The respondents on an average demonstrated positive concern about Brand

Trust (M=4.3372) notably their consciousness about Brand Image is low (M=3.5826). The Pearson correlation between measures shows statistical significance level of p at 0.01 for all hypothesized relationship. In other words, BT ($r = 0.643$), BC ($r = 0.625$), PV ($r = 0.610$) and BI ($r = 0.394$) were correlated to Brand Love significantly at p value 0.001 and positively. To avoid multicollinearity, the correlation coefficient should not exceed 0.8 (Field, 2005). There is no multicollinearity, since the value of highest correlation coefficient is 0.643. The correlation between BT and BL was the strongest followed by BC then PV and BI.

Table 2: Mean, Standard Deviation and Correlation Analysis between Constructs

	Mean	Std. Deviation	BT	BC	PV	BI	BL
BT	4.3372	.63972	1	.639**	.475**	.313**	.643**
BC	4.1709	.71023	.639**	1	.572**	.287**	.625**
PV	3.9197	.59406	.475**	.572**	1	.305**	.610**
BI	3.5826	.73856	.313**	.287**	.305**	1	.394**
BL	3.9487	.68107	.643**	.625**	.610**	.394**	1
**. Correlation is significant at the 0.01 level (2-tailed).							

4.2 Scale Reliability and Factor Analysis

Cronbach's alpha test was used to check the reliability of the items within the constructs and the overall score was .893 for the 22 items present which was more than the preferable score 0.70 indicating consistency (Cavana et al., 2001) within the constructs and the individuals score for each construct are BT (0.780), BC (0.723), PV (0.702), BI (0.783) and BL(0.819).

4.3. Multiple Regression Analysis-

Hypothesis testing was done using Multiple regression analysis. Histogram and P-P plot were tested to check normality of data. Bell shaped curve was displayed by histogram and for P-P plot the dots were following line indicating that the data has normal distribution. Heteroscedasticity of the data was analyzed through scatter plot. The result depicted that the dots were spreading widely and were not forming a particular pattern. Variance-inflation factor (VIF) and tolerance were applied to test multicollinearity among the predictor variables. The results shows no multicollinearity as tolerance indicator for BT, BC, PV and BI are all greater than 0.1 and their respective VIF values are less than 10 (Ott and Longnecker, 2001). The multiple regression analysis in Table 3 indicates that all the independent variable BT, BC, PV and BI significantly influences dependent variable BL.

Table 3: Multiple Linear Regression Analysis and Model Summary^b

Table 3: Multiple Linear Regression Analysis and Model Summary ^b								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
	(Constant)	-.179	.263		-.680	.498		
	BT	.348	.067	.327	5.182	.000	.561	1.782
	BC	.198	.064	.207	3.085	.002	.497	2.011
	PV	.336	.068	.293	4.950	.000	.638	1.568
	BI	.131	.047	.143	2.809	.005	.868	1.152
	R			.758 ^a				
	R Square			.575				
	Adjusted R Square			.566				
	Std. Error of the Estimate			.44870				
a. Predictors: (Constant), BT,BC,PV,BI								
b. Dependent Variable: BL								

From Table 3 findings it can be concluded that the value of p for Brand Trust is 0.000, for Brand Credibility p value is 0.002, for Perceived Value it is 0.000 and for Brand Image p is 0.001 which is less than the alpha value of 0.05. Therefore all the hypothesis H1, H2, H3 and H4 are supported indicating that Brand Trust, Brand Credibility, Perceived Value and Brand Image all have an impact on Brand Love. Based on analysis the multiple regression equation which is formed is given below-

$$BL = -0.179 + 0.348 (BT) + 0.198 (BC) + 0.336 (PV) + 0.131 (BI)$$

The Unstandardized Beta Coefficient values of the independent variable are ranging from least significant relationship of 0.131 (between BI and BL) to the powerful significant relationship of 0.348 (between BT and BL) signifying that strongest antecedent influencing Brand Love is Brand Trust followed by PV(0.336) and BC(0.198). The intensity among variables is explained by the data of Standardized Coefficients. BT(0.327) is relatively most powerful independent variable in determining Brand Love among consumers followed by PV (0.293), BC (0.207), and BI (0.143). Model summary in Table 3 also indicates that the independent variables (BT, BC, PV, BI) explain the variation in the dependent variable (BL) by 57.5% since the value of R square is .575.

Table 4

Anova ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	51.734	4	12.934	64.241	.000 ^b
	Residual	38.253	190	.201		
	Total	89.987	194			
a. BL: Dependent Variable						
b. (Constant), BT,BC,PV,BI : Predictors						
Table 4 indicates that there is significant influence between all the independent variables and the dependent variable as the significance value of F-test is 0.000 which is lower than the significance level of 0.05.						

5. CONCLUSION AND IMPLICATIONS OF THE STUDY

The current study finds there is positive and significant impact of Brand Trust, Brand Credibility, Perceived Value and Brand Image on Brand Love, Table 5 summarizes the result of hypothesis testing.

Table 5: Hypothesis Testing

Causal Relationship Among Constructs	Estimate	p-value	Decision
BT → BL	.348	.000	SUPPORTED
BC → BL	.198	.002	SUPPORTED
PV → BL	.336	.000	SUPPORTED
BI → BL	.131	.005	SUPPORTED

The result shows that Brand Love (BL) is affecting by all the factors i.e. Brand Trust (BT), Brand Credibility (BC), Perceived Value (PV) and Brand Image (BI). Brand Trust (0.348) came out to be strongest antecedent influencing Brand Love followed by Perceived Value (0.336) and then Brand Credibility (0.198). Brand Love is least influenced by Brand Image (0.131). The results will be helpful for Spiritual Leaders who are also playing the role of celebrity business founders and brand endorsers and other related stakeholders in formulating various marketing strategies on how to attract customers and communicate and position brands in a way that they connect themselves to the customer. The study will make significant contribution by exploring the intensity of brand love and must understand the emotional side of brands to create synergy in their marketing efforts. Moreover, in the case of religious or faith-based brands, attainment of the highest order of brand love can play a revolutionary role for long-term growth.

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INFLUENCE OF ATTITUDE, PERCEIVED BEHAVIOURAL CONTROL, PERCEIVED RISK AND TRUST ON ONLINE STOCK TRADING BEHAVIOUR

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ABSTRACT

The investment sector is having a major role in investors life. An investor will prefer to invest in stock market based on the its risk and return. The added benefit for investment is mobile technology. The technology has changed the investors perception towards investment and individual with adequate knowledge of technology and financial literacy has drastically changed the investment market. An investor manage various portfolio at a time. The mobile technology has transformed the investment sector and it allows the investors and traders to trade actively and manage the various portfolio from anywhere in the world. This study examined the influence of attitude, perceived behavioural control, perceived risk and trust on online stock trading behaviour of investors. The study confirmed that attitude, perceived behavioural control, perceived risk and trust that positively predict the online stock trading behaviour.

Keywords: Attitude, Perceived behavioural control, perceived risk, trust, online stock trading

1. INTRODUCTION

In present scenario the Information Technology (IT) plays a significant role. The innovation, upgradation and advanced technology have impacted the individual decision-making process. The Information technology provides the strategic benefits to the strategic users. Potential information technology enhances competitive advantage and sustainability of the company (Malar et al., 2019). Understanding the technological factor is one of the important determinants that affects the decision making (Taylor & Todd, 1995). In e-commerce business web-based technology provides prime benefits like cost reduction (Ahmed et al., 2003), provides various business opportunities, provides personalized service provision to customer reduce lead time (Khare, 2010).

Web technology and Convention banking is a fusion of online banking system provides improved quality service and superior service delivery with the banking sector (Dawes & Rowley, 1998). As per McKinsey Banking Annual Review report states that the big data and analytics is used to team up with fintech and digital firm to manage and assess the risk. Due to digitize process the back-office cost is reduced (McKinsey's Global Banking Annual Review | McKinsey, n.d.).

The information technology plays a significant role in online banking services especially the relationship between online banking service system and mobile device were applying and sending security code that enhances services provided in India. Online banking service system helps in value co-creation like flexibility, comfortability, effective informational technology and centralized customer service. Multi-dimensional focus is required for an information technology effective strategy to enhance the value co-creation (Malar et al., 2019).

In present scenario an individual will prefer to have multiple sources of income to get benefit of achieving financial independence, greater stability and safety, scaling faster, working from the comfort of your home and living your dream life (Five Benefits of Having Multiple Sources of Income as an Entrepreneur, n.d.). An individual can get accessed to all the information by a single click. Hence, among the options of decision making an individual major decision will rely on his or her investment and portfolio.

According the Deloitte report study states that the smart phone users in India in 2021 has 750 million out of 1.2 billion subscribers and smartphone market users is expected to reach 1 billion by 2026 (India to Have 1 billion Smartphone Users by 2026: Deloitte Report | Business Standard News, n.d.). Higher internet adoption is expected to increase smart phone demand. As per Telecom Statistics India 2021, telephone subscribers in India were 996.13(in Million) in the year 2015 and was increased to 1200.88(in Million) in the year 2021. Among this smartphone user in India, the internet subscriber was 302.36(in million) in the year 2015 was increased to 825.30(in million) in the year 2021 (Statistical Bulletin-2021 Print Final 7-4-2022(TRAID), n.d.)

The mobile technology has transformed the investment sector and it allows the investors and traders to trade actively and manage the various portfolio from anywhere in the world. Mobile technology has enhanced the investor to explore the stock market and get benefits like faster, transparency and flexible in online stock trading (Chong et al., 2021). In August 2022 Mode of trading report stated that Internet based trading in only 9.87% (NSE, n.d.). Self-investing trading service is increased compared to the traditional investment due to low commission charged by the online trading brokers (Teo et al., 2004). Enable investors prefers for secure e-trading services compared to traditional (Roca et al., 2009). Online trading gives various benefits to its investor like lesser transaction cost, transparency in trading, and flexibility in trading (Lee, 2009).

2. LITERATURE REVIEW

Attitude

Attitude refers to favorable or unfavorable thinking that affects the individual behavioral change(Raut & Das, 2017). Attitude is one of the important factors that directly influences the investor while investing online(Lee, 2009). Growth in interest of internet trading is attracting positively on the investor (Butler & Peppard, 1998). Innovation in technology helps the attitude of the investor to be more viable in the transaction(L. L. Chong et al., 2021). Earlier research has shown that the attitude of the investor in online trading platform and opting the technological change have significantly increased the confidence among the investors(Ajzen & Fishbein, 2000; L. L. Chong et al., 2021; Gopi & Ramayah, 2007). Chong et al., (2021) confirms that positive attitude derived on the cost efficiency and time utility of mobile stock trading results in more investors adoption towards mobile stock trading system. Thus, the following hypothesis is constructed as:

H1: Attitude has positive influence on online stock trading platform.

Perceived Behavioral Control:

Perceived behavioral control refers to the individual's belief that behavior is under such individual control. Availability of resources and control over the behavioral barrier influences the performance(J Z E N, 2002). It also accounts that the perception of control over people behavior(Hansen et al., 2018). Investment intention study clearly states that purchase of stock gets influenced deals with the behavioral control factor influences the investor complex purchase decision(Ibrahim & Arshad, 2017). Resource and technological facilitation conditions affects the behavioral control(Lau et al., n.d.-a). Chong et al., (2021) states that in there is positive relationship between the perceived behaviour control and intention. Thus the following hypothesis is constructed as:

H2: Perceived behavioural control has positive impact on online stock trading platform.

Perceived Risk:

Perceived risk refers uncertainty that may take place due to the decision made. Environmental and technological factor has impact on the investment decision where the investor cannot predict accurately thus, decision affects the outcome(Featherman & Pavlou, 2003). The earlier

research states that the investor is reluctant to invest online due to identify theft and fraud (Forsythe & Shi, n.d.). The online trading transaction gets affected due to perception behaviour and environmental control. The earlier research states that, the increase in the online risk will decrease the investor investing online (Damghanian et al., 2016). Lee, (2009) states that there is a negative impact on consumer intention to purchase online. Thus, the following hypotheses is constructed as:

H3: Perceived risk has negative impact on online stock trading.

Trust:

Trust is one of the important factor that acts as a mental guarantee and that influences the human being to trust electronic transaction activity (Damghanian et al., 2016). In e-commerce trust plays the significant prerequisite role and most of the research on information technology have attentive on trust (Featherman & Pavlou, 2003). Trusting m-commerce users are willing to take risk thought it includes uncertainties like lack of face-to-face interaction, security and privacy issue (A. Y. L. Chong et al., 2012). K. W. Lee et al., (2011) highlights that the risk is reduced due to trust, that improves the social relationship and have positive influence of trust on attitude towards switching to internet banking. Trust promotes the online mobile stock trading and the service provider must ensure that the trader rely on the trading platform (L. L. Chong et al., 2021). Earlier study have found out that the trust is one of the important factors that affects customers intention towards online trading (Lee, 2009). This study aims to understand the willingness of the investors to take risk in online trading. Hence the following hypothesis is constructed as:

H4: Trust has a positive impact on online stock trading.

3. RESEARCH METHODOLOGY

This study is conducted to examine the influence of attitude, perceived behavioural control, perceived risk and trust on online stock trading behaviour. The population of the study comprise of online stock traders. Self-reporting questionnaire was used to collect the data on the basis of convenience sampling method. Questionnaire was administered through the available like known investors and stock brokers contacts using Google form and study received 132 responses.

Self-reporting questionnaire administered to collect the primary data includes questionnaire to measure perceived benefit, perceived ease of use and perceived usefulness of online traders and online stock trading behaviour. The data is collected from stock traders using self-administered Likert-based questionnaire ranging from strongly disagree (1) to strongly agree (5).

Reliability of data has been measured through Cronbach's alpha. SPSS-20 has been used for reliability, correlation analysis and regression analysis. Regression analysis has been used to find out the influence of perceived benefit, perceived ease of use and perceived benefit on online stock trading behaviour.

4. RESULT AND DISCUSSION

The main objective of the study is to examine the attitude, perceived behavioural control, perceived risk and trust on online stock trading behaviour. The following analysis are being conducted to test the validity, relationship and influence between the variables.

Table No.1- Reliability Analysis:

Scale	Items	Cronbach's Alpha (α)
Attitude	7	0.965
Perceived behavioural Control	5	0.897
Perceived risk	3	0.843
Trust	4	0.868
Online Stock Trading Behaviour	6	0.918

Source: Primary Data

The reliability analysis for all the constructs showed the Cronbach's alpha values ranged from 0.843 to 0.965. All the constructs indicate alpha point above 0.7 (Nunnally, 1978). This demonstrates that all the research variables attitude ($\alpha = 0.965$), Perceived Behavioural control ($\alpha = 0.897$), Perceived Risk ($\alpha = 0.843$) and trust ($\alpha = 0.868$) and Online Stock Trading Behaviour ($\alpha = 0.918$), were internally consistent and had the acceptable reliability values. All items for the constructs were assessed using a Likert scale ranging from 1 (Strongly disagree) to 5 (Strongly agree)

Table No. 2- Relationship between attitude, perceived behavioural control, perceived risk and trust on online stock trading behaviour

Correlations					
	Attitude	Perceived Behavioural Control	Perceived Risk	Trust	Trading Intention
Attitude	1				
Perceived behavioural Control	.831**	1			
Perceived Risk	.964**	.815**	1		
Trust	.956**	.826**	.992**	1	
Trading Intention	.801**	.742**	.790**	.776**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Primary data

Online stock trading behaviour is positively related to attitude ($r = .801$), perceived behavioural control ($r = .742$), perceived risk ($r = .790$) and trust ($r = .776$) (at $p < 0.01$). The bivariate correlation between the variable representing a strong and significant positive relationship, which explains that attitude towards technology and online provisions, perceived risk of online trading, trust on the online trading platforms and perceived behavioural control on investment decisions positively influences the online stock trading behaviour of investors.

Table No. 3a: Predictors of online stock trading behaviour

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820 ^a	.673	.664	2.00108

a. Predictors(Constant), Trust, Perceived Behavioural Control, Attitude, Perceived Risk

Source: Primary Data

The regression model in the table 3a shows that 64.4percent (Adjusted R Square 0.64.4) of the variability in online stock trading behaviour is due to variability of trust, perceived behavioural control, attitude and perceived trust meanwhile the remaining 35.6 percent was due to other variables which are not included in the objectives of the research study.

Table no. 3b: Predictors of Online stock trading behaviour

Coefficientsa						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.491	.980		10.701	.000
	Attitude	.221	.112	.369	1.979	.005
	Perceived behavioural Control	.242	.074	.286	3.248	.001
	Perceived risk	.582	.667	.503	2.372	.009
	Trust	.965	.465	.820	2.074	.001

a. Dependent Variable: Online stock trading

Source: Primary Data

In the above table 3b, the Beta under standardised coefficient of all the predictor variables showing significant predictive ability on the online stock traders. This means that trust ($\beta=.369$), perceived behavioural control ($\beta=.286$), perceived risk ($\beta=.793$) and trust ($\beta=.820$) makes the significant contribution to explain the online stock trading behaviour. However, trust makes greater impact followed by perceived risk in online trading significantly greater impact on the online trading behaviour of retail investor.

5. CONCLUSION

Online financial services are in trend and advancement in smart phone technology have completely changed the investor behaviour towards stock trading. Youngster have greater access to smartphone and technology savvy that attracts young investor to make more money. This study explores the factors that influences the investor investing in stock market. It employs the three variables like of attitude, perceived behavioural control, perceived risk and trust that influences online stock trading. The empirical result show that the perceived benefits, of attitude, perceived behavioural control, and trust have positive influence in online stock trading. This indicates that the advancement in the technology has simplified the day-to-day operation and made easy to access financial services in the tip of the fingers of investor and which facilitated the investment behaviour. This study explored the effect of perceived benefit, perceived ease of use and perceived usefulness on online trading behaviour which may act as a major limitation for the study because there might be many other factors not studied in this paper may also contribute on the investment decision. Additionally, the study has been restricted to only Bangalore region, perception and experiences might vary with geographical and economic differences. That implies that the findings of the study may not be generalizable to other part of country.

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INFLUENCE OF GENDER WHILE INVESTING IN SECONDARY EQUITY MARKET**Ms. Anu¹ and Dr. Tanu Sood²**¹Research Scholar, PCJ School of Management, Maharaja Agrasen University, Baddi, Himachal Pradesh, India²Assistant Professor, School of Management, MAU Baddi**ABSTRACT**

In nearly every effort of human civilization, since time immemorial sex disparities have persisted between countries and cultures, and researchers have been the cynos. Several research explored the links between gender and compartmental financing. In this section, an attempt is being made to assess how the decision making on an investment might impact gender, risk aversion and overconfidence. The aim of the research article is to analyze the fact that the behavior of female investor in relation to loss aversion, remorse, representation, and overdominance of secondary equity investor residents of Delhi NCR is different from that of female investors. The survey is conducted by secondary investment investors living in Delhi NCR. The selected samples for the study are the Delhi Investors Association (DIA) members and Integrated customers of a famous financial services firm. The data were obtained using the survey technique for the questionnaire.

Keywords: Behavioural Finance, Gender differences, Investment decision making, Overconfidence, Risk Aversion.

1. INTRODUCTION

Finance can no longer be seen just as numerical science. In fact, decision-making on investments does not always correspond to the assumptions stated in books by famous finance experts and methodologies. As conventional finance, behavior funding has not been able to explain investors' thinking patterns, including the psychological processes involved and their effect on investment decision making. Investments have been produced. In nearly every effort to develop human civilization, there have been gender disparities in countries and civilizations and scholars have been canoeing. Academics and researchers in behavioral finance have examined gender disparities and the influence that these have on the decision-making process for investment by individual investors.

This gender impact has greatly increased the worry of financial consultants and corporations all across the world to re-evaluate their approach to individual investors. In several study investigations 80-90 percent of women were shown to be accountable for investing. Financial advisors therefore prefer to propose that women select investment options that are less hazardous than men. These research showed that women are at greater risk than men. More than the financial counsellors, women choose to invest in less hazardous investment. Most research have shown that women are prone to danger than men. We may find now a couple of days that the investment ability between the man and the woman exists. Research on gender and risk aversion indicates that women may not act in the same way as men in taking risks and managing hazardous investment choices. The viewpoint and orientation of both men and women are different. The current research focuses on gender differences and confidence in investing decision-making risk aversion.

2. REVIEW OF LITERATURE

The impacts of manhood and femininity on the danger of financial risk were investigated by Katja Meier-Pesti and Elisabeth Goetze (2006). The study used a random sample of 241 adults. During an examination of co- variance, the first step was to confirm the impacts of gender identity and biological sex on men and women. In the second stage, an analysis of variance evaluated the impacts of gender salience and biological sex on risk taking. Research has shown

that the gap in masculinity between women and men has fallen. In their study Zuckerman and Kuhlman (2000) discovered that "men are more riskier than women in general" and that Prince (1993) indicated that males consider themselves more knowledgeable in financial problems. Gender was a significant explanatory factor impacting confidence in investment decisions by Powell and Ansic (1997). After checking criteria including age, experience, education, expertise and assets, females felt less sure about their selections. Steineroch (1991) discovered that women are less risky and are more concerned about financial decisions than males and are more willing to utilize financial counsellors in such a financially oriented saving study.» This is shown by studies that women are looking for less risk than males in financial conditions. Powell and Ansic (1997) propose that various investing methods may be driven by distinct "needs" of men and women. They suggested that these distinct "needs" and hence methods may be that women search for safety while males hunt for rewards. It is the mistaken notion, which gives more credit than expected to individuals, that is, to overtrust it is perceived (Langer and Roth 1975), Miler and Ross (1975), and Taylor and Brown (1988) mentioned in Daniel, Hirshleifer, and Subrahmanyam (1998). If choices are not made as planned, however, external variables outside the control of the individual are deducted. The researchers investigated if men and women have distinct strategies and if they differ in their policy-making behaviour: Matthew C. Sonfield, Robert N. Lussier and Joel Corman (1997). The mail and telephone follow-up methodologies examined a random sample of 802 small enterprises. With 151 valid data sets, the response rate was 20%. As statistical techniques in this work, a chi-square test and the Mann-Whitney U test were utilized. The study demonstrates that males and females entrepreneurs have shown no disparities in their investment choices and their business performance satisfaction.

The study examined the variations in gender in confidence, by Christiane Schwieren and Matthias Sutter (2003). The study found that males had higher faith than women in the skills of others with whom they engage. Many research studies support the notion that women have less confidence in decision making than males, however the present study aims to determine whether this is accurate and whether women make investments different from men.

3. OBJECTIVE OF THE STUDY

The major objective of the study is to discover if women investors are acting differently in terms of loss aversion, regrets, representativeness and excessive confidence shown by secondary stock investors in Delhi's NCR, as compared to male investors.

4. SAMPLE AND METHODOLOGY

The studied population is the secondary investment companies residing in Delhi NCR. For the study samples were recruited from the Delhi Investors Association (DIA) members and customers of a famous financial services firm, Integrated. Data were obtained using the survey technique for the questionnaire.

It is the only formal authority to grant access to its members' data collection, DIA has been selected. 65 questionnaires were delivered during the Delhi Investors Association (DIA) meetings. Only 61 of the 65 surveys have been returned. Seven surveys were incomplete and could not thus be considered legitimate. All questionnaires completed were accepted as eligible for the remaining 54 completed questions.

Integrated was the only firm to be able to access its customers to data collection. Integrated clients have been met in person and the questionnaire has been delivered in 360 copies. Of the 360 questionnaires distributed, 320 have been returned, 15 of them incomplete and hence invalid. All the completed surveys were considered valid among the 305 completed questionnaires. Investors selected using snowball sampling procedures were able to complete 77 surveys via the online questionnaire. This included the collection of 436 valid surveys. Of the 436 surveyed 322, 73.9% were female investors, while 114 provide 26.1% of the samples. Outreach of the 436 respondents were male investors.

5. DATA ANALYSIS

The four behavioural preconditions, namely: aversion to a loss, aversion to regret, representativity and overconfidence are tested in five Likert-based questions. The scores then are combined to calculate each of the biases' overall score. The reliability score for assessed behavioural prejudices is based on the alpha coefficient approach used in Cronbach which shows adequate internal consistency (0.826).

Independent sample testing is employed to assess whether there is statistically significant difference between the means of the two split groups by sex. A series of research in many disciplines have employed an independent sample T-test. Ellis et al. (2010) use the independent sample t-test to assess if multiple class tasks impact business student graduation. The average difference between the test results for both groups separated in text and non-text pupils is calculated by an independent t-test sample. Frazier et al. (2012) employ a separatetest for gender in the self-reported depressive symptoms of individuals with acute cardiac disorder. Carpenter et al. (2007) use an independent t-test sample to assess the effectiveness of team learning. For the groups separated in the solo and team-teaching part of an introductory graduate course on research and statistics, independent sample t-test helps to identify student views and achievement through analysis of course degrees and pre-post performance differences.

Of the four behavioural prejudices analyzed, the difference was statistically significant only for three prejudices, namely: loss averse, regret aversion and representativeness.

5.1 Loss Aversion

The aversion to loss is the result of the inclination to keep on losing stocks, in the expectation of price regeneration, in investing decisions. In the study of Likert, between most probably (5) and most improbable (1), this preference is assessed by the following five questions: I You want to play safely, and you do not even want to lose some of your money. You like to put your money in secure assets for stable income.

- (ii) In the beginning, you held 30% of your technology stock portfolio. When the stock prices of technologies decreased, your commitment was steadily increased to 100%, with a hope that a total reversal would take place. (iii) You would prefer to sell the winning stocks rather than the losing stocks in a time of uncertainty in the stock market when you must sell the shares (iv) As soon as the stock price passes your targeted price level, you will sell the stock (v) You would keep the stock until your requested price level was attained. The overall median was 16.44, which is above the usual value of 15, which shows that the loss aversion bias was present. Table 1 shows that the female respondents are most prone to loss aversion as their means are greater compared with the male respondents.

Table 1: Loss Aversion - Group Statistics

	Gender of the respondent	N	Mean	Std. Deviation	Std. Error Mean
Loss Aversion	Male	322	16.15	3.810	.212
	Female	114	17.25	3.554	.333

Table 2: Loss Aversion - Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Loss Aversion	Equal variances assumed	0.132	0.717	-2.700	434	0.007	-1.102	0.408	-1.904	-0.300
	Equal variances not assumed			-2.792	211.319	0.006	-1.102	0.395	-1.881	-0.324

The statistical significance of the difference is tested using the independent sample t-test. Based on a statistically substantial difference in means for the loss average distinctions among the two groups split according to sex, there is an independent t-tested test result of Table 2, (t, -2.7, p-value for one tail test, 0.0035**). This means that women investors (meaning 17.25) are more likely to experience a loss aversion in relation to men (with mean 16.15)

5.2 Regret Aversion

Regrettably, there was an aversion bias due to the propensity to monitor stocks already being sold, and hence regrets if prices were further increased. In the research on a Likert scale from the most probable (5) to most unlikely (1), this bias is assessed using the following five questions: (ii) You postpone your losing stock sales because you want to avoid further regretting (iii) You accelerate the sale of the winning stock in order to enjoy your feeling of success (iv) Do you continue to monitor the winning stock you have already sold and regret that the prices have increased? (v) Before you choose to buy a stock, take account of all the consequences of your decision. (v) When the stock is purchased on Rs. 2000, it has more agony than delight to watch it fall on Rs.1000 than Rs.3000. The sorrow is usually higher than the sense of delight. The overall average is 16.83, which is higher than the average of 15 and so indicates the aversion bias. Table 3 shows that women are more likely to regret aversion when compared to men, since their means are greater.

The statistical significance of the difference is tested using the independent sample t-test. Based on the results of the independent samples T-test in Table 4, (t, -1.842, p-value for one threshold test, 0.033*), the means for the regrettable bias of aversion between the two groups are statistically significantly differentiated according to gender. This means that female investors are more likely (meaning 17.36), than male investors to regret aversion (with mean 16.62).

Table 3: Regret Aversion - Group Statistics

	Gender of the respondent	N	Mean	Std. Deviation	Std. Error Mean
Regret Aversion	Male	322	16.62	3.640	.203
	Female	114	17.36	3.730	.349

Table 4: Regret Aversion - Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Regret Aversion	Equal variances assumed	0.004	0.951	-1.842	434	0.066	-0.735	0.399	-1.520	0.049
	Equal variances not assumed			-1.820	194.272	0.070	-0.735	0.404	-1.532	0.061

5.3 Representativeness

The partiality in representation shows the partiality in investing judgments related to the inclination to regard previous prices as indicative of the future. This bias is assessed using the five questions of Likert in the research, ranging from Most likely (5) to Most improbable (1) I Do you believe that the stock's previous performance predicts a potential return for the stock? (ii) Do you think that making a stock purchase choice is simpler if the stock has numerous good previous similarities?

- (iii) The stock prices may show patterns even if the prices are highly erratic. (iv) You would acquire an inventory instantly advised by your favorite TV and financial advisor (v) You would purchase a stock quickly proposed by a buddy on the recommendation of whom you earlier made a profit. The overall average is 15.9, which is more than the average value of 15, suggesting the presence of a bias in representativeness. Table 5 states that women interviewees are more likely to have representational bias compared to men since their incomes are greater.

The statistical meaning of the difference is tested using an independent sample t-test. On the basis of the independent t-test result (t, -2.344, p-value for a single tail-test, 0.01*), the means of the representativeness biases split between the two groups based on gender have a statistically significant difference. The that means that female investors are more likely to have a representativeness factor (average: 16.61) than male investors (with mean 15.64).

Table 5: Representativeness - Group Statistics

	Gender of the respondent	N	Mean	Std. Deviation	Std. Error Mean
Representativeness	Male	322	15.64	3.837	.214
	Female	114	16.61	3.700	.347

Table 6: Representativeness - Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Representativeness	Equal variances assumed	0.19	0.663	-2.344	434	0.020	-0.971	0.414	-1.786	-0.157
	Equal variances not assumed			-2.385	204.965	0.018	-0.971	0.407	-1.774	-0.168

SUMMARY

Table 7: ANOVA test – Bias vs. Gender

S.No	Bias	Mean (Male)	Mean (Female)	t value	p-value for one tail test
1	Loss Aversion	16.15	17.25	-2.7	0.0035**
2	Regret Aversion	16.62	17.36	-1.842	0.033*
3	Representativeness	15.64	16.61	-2.344	0.01*
4	Overconfidence	17.02	16.86	0.370	0.36

** - rejected at 0.01 level

*- rejected at 0.05 level

The t-test results (Table 7) show that male and female participants vary in all major biases, with the exception of over assurance and the mistake of gamblers. Furthermore, women interviewed show higher partialities than men. Various investigators have shown that women are more unwilling to take risks compared with men (Barber & Odean, 2001; Byrnes et al., 1999; Felton et al., 2003; Jianakoplos & Bernasek, 1998). This high-risk aversion might explain female investors' strong aversion to loss and regret. Worthington (2006) revealed that women investors had less than males in financial knowledge. That could make women investors more prone to prejudice than male investors. This might be one reason.

6. CONCLUSION

In this study, the questionnaires surveyed 436 secondary equities investors in Delhi NCR evaluated if female investors are more/less susceptible to behavioural prejudice in comparison with male investors. On a Likert scale, there are four behavioural biases: loss aversion, aversion to regret, representativeness and overconfidence. The mean difference between the groups split according to gender is significant for aversions to loss, remorse and representativeness among the four partialities evaluated. In contrast to male investors, female investors are more prone to prejudice with regard to all six predictions with significant variations. The investing selections in the stock market therefore include extra caution on female investors. Financial advisers must inform investors of the prerequisites they are likely to provide and advise investment strategies accordingly.

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INFLUENCE OF LIQUIDITY ON RETURNS: A FINANCIAL ANALYSIS OF SUGAR INDUSTRY

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ABSTRACT

The liquidity and profitability trade-off has always been a very crucial aspect not only for the company directors but also for its other stakeholders. Investors consider it before investing, suppliers consider it before providing supplies to check whether the company will pay its dues or not, employees consider it to know whether the company will be in a position to meet their employee obligations or not. Profitability is an indication of the efficiency with which the operations of the business are carried on. Profitability performance analysis is an important criterion to evaluate the overall efficiency of an organization. It is concerned with the total earnings or the income generated and the total expenditure or the investments incurred by a company. Thus, profitability performance analysis may be defined as the ability of a given investment, to earn a return on it and liquidity is the one of the important factor which affects the profitability of the company. Managing current assets and current liabilities is the key to maintaining the highest level of profitability in the profitability and liquidity trade-off. The current study is aimed to measure and analyze the influence of liquidity on returns of the Sugar Companies listed in BSE. In the present study, secondary data from the annual statements of the selected sugar companies for the period 2018-2022 has been taken. The results of analysis showed a significant correlation between the liquidity and profitability.

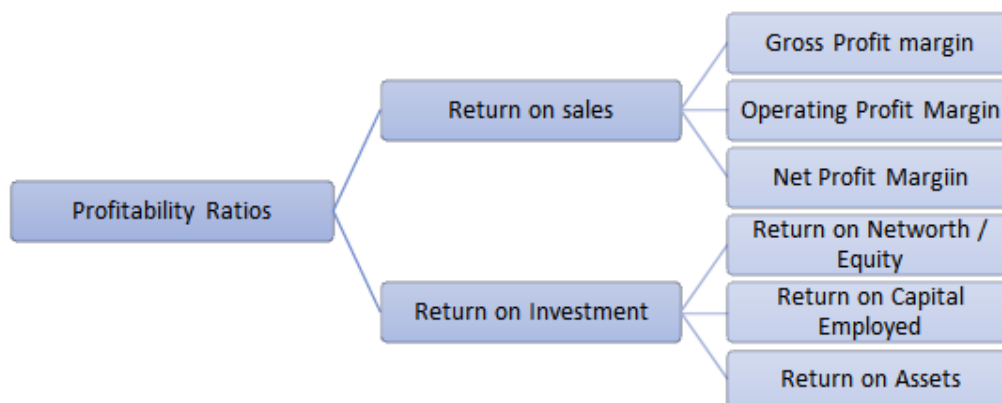
Keywords: Liquidity, Profitability, Working Capital Management, sugar industry, BSE.

INTRODUCTION

While analyzing the company's performance in comparison to its competitors, we need to consider the financial ratios. There are numerous financial ratios to analyze the financial performance of the company viz. profitability ratios, liquidity ratios, solvency ratios, activity ratios, and valuation ratios. These ratios talk about the overall health of the company.

PROFITABILITY RATIOS

Profitability ratios are a type of financial indicator that are used to evaluate a company's capacity to create earnings compared to its revenue, operational costs, balance sheet assets, or shareholders' equity over time, based on data from a certain moment in time.



Return of Assets (ROA)

Return of assets tells which company is utilizing its assets optimally. How fast any company can produce, utilizing its assets? A company producing more quantity with a faster pace will get higher returns on optimally utilizing its assets. There may be another company not utilizing its assets optimally, having idle assets. That company's return will eventually fall. Return on Assets (ROA) indicates the management efficiency of utilizing the company's capital which is invested in assets for generating profits (net income)(Return on Assets- ROA, n.d.).

The formula is calculated as:

$$\text{Return on Assets} = \text{Net Income} / \text{Total Assets}$$

Return on Equity (ROE)

Return on Equity talks about the return which the company generates by employing the equity investors' money. Return on Equity is considered the return on net assets. The ratio depicts the management's ability to optimally employ the investors' money in the firm and turn it into profits. (Return on Equity ROE, n.d.)

The formula is calculated as:

$$\text{Return on Equity} = \text{Net Income} / \text{Shareholders' Equity}$$

Return on Capital Employed (ROCE)

This ratio analyzes the amount of profit the management is able to earn on the capital employed in the firm. Return on Capital Employed is the most preferred ratio by the investors to check whether the entity is fit to invest in or not. The estimate tells investors how much the dollar will earn per dollar of their investment. Return on Capital Employed is considered a measure of long-term profit as it shows that assets are more efficient while considering long-term financing. This is why ROCE is a much more effective measure than a return on equity for long-term corporate evaluation.(Return on Capital Employed ROCE , n.d.)

The formula is calculated as:

$$\text{Return on Capital Employed} = \text{Net Operating Profit} / \text{Employed Capital}$$

Earnings before Interest and Taxes (EBIT)

This ratio is the profitability indicator that examines the performance of the business's core activities without taking into account the influence of capital structure and tax charges on profit. Before net income, it is one of the last subtotals on the income statement. Operating margin can also be calculated by dividing the EBIT by sales revenue (EBIT - Earnings Before Interest & Taxes, n.d.). The formula can be calculated as:

$$\text{EBIT} = \text{Net Income} + \text{Interest} + \text{Taxes}$$

Profit before Tax (PBT)

This is the profit immediate before payment of taxes, but after including all operating and indirect expenses. This is also known as Earning Before Tax (EBT), or pre-tax profit. This gives the company's stakeholders a clear understanding of how much profit it is earning before paying taxes. It is one of the key performance matrices for the organization that discusses profitability. EBIT and PBT differs from each other by only one factor i.e., interest. PBT accounts interest , EBIT doesn't account for interest (Profit Before Tax (PBT) , n.d.). The formula can be calculated as:

$$\text{Profit before Tax} = \text{Revenue} - \text{Expenses (Exclusive of the Tax Expense)}$$

Net Profit Margin

This financial ratio illustrates how much of a company's revenue is converted into profit. It is a strong indicator of company's performance talking about its profitability. It is quantified as a

percentage. A higher net profit margin ratio states that an organization is selling its goods and services at a higher price and is able to cover its expenses easily. Whereas the low net profit margin states an uneconomical cost structure of the company, or poor pricing strategy. High costs (expenses), ineffective management, or a poor pricing strategy can contribute to a company's low net profit margin. This is a crucial key indicator that investors take into account before making the investing decision (Net Profit Margin, n.d.). The formula can be calculated as:

$$\text{Net Profit Margin} = \text{Net Profit} / \text{Total Revenue} * 100$$

Liquidity Ratios

Liquidity ratios are a type of financial indicator that assesses a debtor's capacity to repay existing debt commitments without raising external capital. Liquidity ratios use variables such as the current ratio, quick ratio, and operational cash flow ratio to assess a company's capacity to meet debt obligations and margin of safety.



Current Ratio (CR)

This ratio is used to determine the firm's capacity to cover its current liabilities and costs. The ratio is calculated as:

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

Quick Ratio (QR)

The quick ratio measures a company's ability to meet short-term liabilities with its most liquid assets and acts as a sign of its short-term liquidity situation. The ratio is calculated as:

$$\text{Quick Ratio} = \text{Quick Assets} / \text{Current Liabilities}$$

$$\text{Quick Assets} = \text{Cash} + \text{Cash Equivalents} + \text{Marketable Securities} + \text{Net Accounts Receivable}$$

The most liquid current assets that are readily convertible to cash are referred to as quick assets.

LITERATURE REVIEW

Al Nimer et al., (2015) investigated how liquidity affects the return on assets (ROA) as a way to quantify the relationship between liquidity and profitability. This study was conducted on the fifteen financial institutions for the period 2005-2011. The researcher took Quick Ratio as the predictor variable to study its impact on the Return on Assets as being response variable. The researcher used simple regression analysis as the analysis and validation tool. The study concluded that the Return on Asset is significantly influenced by the Quick Ratio.

Safdar et al., (2016) conducted research on the sugar industry to analyze what among the profitability and liquidity matters the most. This study investigated and analyzed the liquidity and profitability trade off. The study considered the means of "Return on Assets, Return on Equity, Return on Capital Employed" as the measures of profitability. The means of "Current Ratio, Quick Ratio, Absolute Liquid Ratio, Current Assets Turnover Ratio, Inventory Turnover Ratio, Average collection period" were taken as the representative of liquidity. The study considered 5-year data for the study. Analysis was done using "reliability analysis, descriptive analysis, multiple regression analysis, correlation and test of significance to test the causal linkage between liquidity and profitability". The study discovered a significant association between profitability and liquidity. The study suggested that the management can improve the profitability by intelligently investing the liquid assets.

Malik et al., (2016) studied the trade-off between liquid and profitability among the financial institutions. The study considered the financial data of twenty-two private sector banks for the period 2009-2013. In the study profitability ratios viz., Return on Assets, Return on Equity, Return on Investment were taken as the explained variables whereas liquidity ratios viz., Current Ratio, Quick Ratio, Liquidity Ratio were chosen as the explanatory variables. The researcher formed the models and used Ordinary Least Square (OSL) technique for the analysis and validation of the research. The study found a negative association between profitability ratio and liquidity ratio and arrived at this conclusion.

Madushanka & Jathurika, (2018) sought to determine the influence of liquidity on the profitability of Sri Lankan manufacturing firms. The research was carried out on 15 manufacturing enterprises whose financial data was collected over a 5-year period. The study took “Return on Asset & Return on Equity” as the measure of profitability as the predicted variable. The predictor variables were the “Current Ratio and the Quick Ratio” as the representative of the liquidity. The study was analyzed and validated using the correlation and regression analysis. The results of the studies revealed that liquidity ratios, particularly the Quick Ratio, had a favorable or significant and considerable influence on the firm's profitability.

Mohanty, (2018) investigated and looked into the correlation between liquidity and profitability of small and medium enterprises (SMEs) for which the researcher conducted the correlation analysis. Financial data of “28 Bombay Stock Exchange listed small and medium enterprises (SMEs)” for a period of 5-year was taken for the analysis. The intent of this study was to examine the influence of liquidity management on the profitability of SMEs, for which a regression analysis was carried out. The researcher took “Current Ratio, Quick Ratio, Cash Ratio” as the manipulated variables as being the representative of the Liquidity management. Net Profit Ratio (NPR), Return on Capital Employed (ROCE), Return on Assets (ROA) were taking as the measured variables being the profitability indicators of the SMEs. The correlation analysis showed a negative relationship between profitability and liquidity. Further pooled regression results showed that liquidity had a considerable influence on profitability.

Null Hypothesis under Test

$$H_{01}: \text{CR and QR is not affecting ROA}$$

H_{02} : CR and QR is not affecting ROE

H_{03} : CR and QR is not affecting ROCE

H_{04} : CR and QR is not affecting EBIT

$$H_{05}: \text{CR and QR is not affecting PBT}$$

H_{06} : CR and QR is not affecting Net Profit Margin

RESEARCH METHODOLOGY

This study adopts a quantitative explanatory approach. The sugar companies of India are selected for the study. This study analyses the financial ratios representing profitability and liquidity of 36 sugar companies. The sample selection is done based on the availability of data and listed in Bombay Stock Exchange (BSE). In the present study, secondary data from the annual statements of the selected sugar companies for the period 2018-2022 is taken. The required data was collected from Bombay Stock Exchange (BSE), Moneycontrol website, & official sites of companies.

Financial ratios were chosen as the representative measure of the performance of companies. The study analyses profitability and liquidity ratios. Current Ratio, Quick Ratio are taken as liquidity measures. Return of Assets (ROA) annual %, Return on Equity (ROE) annual %,

Return on Capital Employed (ROCE) annual %, Earnings Before Interest and Taxes (EBIT) annual Margin %, Profit Before Tax (PBT) annual Margin %, Net Profit Margin annual % are taken as profitability measures.

Profitability indicators are implemented as dependent variables and liquidity indicators are independent variables for the present study. The dependent and independent variables are analyses and validated using descriptive statistics and correlation models. Panel regression analysis is used to find out cause and effect relationship between the independent and dependent variables. The study has developed the following six models to test the hypothesis.

$$\text{Model 1: } RoA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

$$\text{Model 2: } RoE_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

$$\text{Model 3: } RoCE_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

$$\text{Model 4: } EBIT_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

$$\text{Model 5: } PBT_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

$$\text{Model 6: } Net Profit Margin_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

Where, RoA_{it} : Return on Assets of sugar companies i ($i = 1, 2, 3, \dots, 36$) at a time t ($t = 1, 2, \dots, 5$ years)

RoE_{it} : Return on Equity of sugar companies i ($i = 1, 2, 3, \dots, 36$) at a time t ($t = 1, 2, \dots, 5$ years)

$RoCE_{it}$: Return on Capital Employed of sugar companies i ($i = 1, 2, 3, \dots, 36$) at a time t ($t = 1, 2, \dots, 5$ years)

$EBIT_{it}$: Earnings Before Interest and Taxes of sugar companies i ($i = 1, 2, 3, \dots, 36$) at a time t ($t = 1, 2, \dots, 5$ years)

PBT_{it} : Profit Before Taxes of sugar companies i ($i = 1, 2, 3, \dots, 36$) at a time t ($t = 1, 2, \dots, 5$ years)

$Net Profit Margin_{it}$: Net Profit Margin of sugar companies i ($i = 1, 2, 3, \dots, 36$) at a time t ($t = 1, 2, \dots, 5$ years)

β_0 is intercept, β_1 and β_2 are regression coefficient and u_t is an error term which is independently normally distributed with mean zero and variance σ^2 .

CR: Current ratio, QR: Quick Ratio.

DATA ANALYSIS

1. Descriptive Statistics of Profitability and Liquidity Indicator

Table 1: Descriptive Statistics

Serial No.		N	Minimum	Maximum	Mean	Std. Deviation
1	RoA	180	-45.57	93.94	1.9298	10.05227
2	RoE	180	-659.24	190.21	-6.7237	78.61892
3	RoCE	180	-309.08	232.45	5.9472	46.78935
4	EBIT	180	-58.10	29.07	5.5945	11.15421
5	PBT	180	-84.20	146.85	2.0640	17.78294
6	Net Profit Margin	180	-51.79	176.83	1.7362	17.46754
7	Current Ratio	180	.20	4.00	1.0761	.62948
8	Quick Ratio	180	.10	2.00	.3672	.35182

The study has determined descriptive statistics of all the profitability and liquidity indicators. It is shown in Table 1. indicates that the mean value of Current Ratio is 1.0761 with minimum .20 and maximum 4.00 and standard deviation of .63. In case of Quick Ratio, standard deviation is .35 with mean value of .36, minimum of .10 and maximum of 2.00.

The descriptive statistics regarding profitability indicators showed in Table 1 indicates that the mean or average value of ROA is 1.92 with minimum value of -45.57 and maximum value of 93.94 with 10.05 standard deviation while mean value of ROE is -6.72 with the standard deviation of 78.61 also the minimum value and the maximum values are -659.24 and 190.21 respectively. In case of ROCE the minimum and the maximum values are -309.08 and 232.45 on the other hand the mean is 5.94 and standard deviation is 46.78. Furthermore, EBIT has shown the minimum value of -58.10 and the standard deviation of 11.15. Maximum value of EBIT is 29.07 with the mean value of EBIT is 5.59. The minimum and maximum values of PBT are -84.20 and 146.85 respectively, whereas the mean and standard deviation showed the value 5.59 and 11.15 respectively. In case of Net Profit Margin, the values of mean and standard deviation are 1.73 and 17.46 respectively with the minimum value of -51.79 and the maximum value of 176.83.

2. Correlation Analysis of Profitability and Liquidity Indicator

Table 2: Correlation Analysis of Profitability and Liquidity Indicator

		RoA	RoE	RoCE	EBIT	PBT	Net Profit Margin	Current Ratio	Quick Ratio
RoA	Pearson Correlation	1	.398**	.122	.109	.911**	.948**	.275**	.120
	Sig. (2-tailed)		.000	.102	.146	.000	.000	.000	.107
RoE	Pearson Correlation	.398**	1	.168*	.139	.441**	.420**	.204**	.082
	Sig. (2-tailed)	.000		.024	.063	.000	.000	.006	.272
RoCE	Pearson Correlation	.122	.168*	1	.378**	.137	.086	.208**	.057
	Sig. (2-tailed)	.102	.024		.000	.066	.253	.005	.445
EBIT	Pearson Correlation	.109	.139	.378**	1	.236**	.081	.499**	.284**
	Sig. (2-tailed)	.146	.063	.000		.001	.279	.000	.000
PBT	Pearson Correlation	.911**	.441**	.137	.236**	1	.970**	.312**	.144
	Sig. (2-tailed)	.000	.000	.066	.001		.000	.000	.054
Net Profit Margin	Pearson Correlation	.948**	.420**	.086	.081	.970**	1	.242**	.105
	Sig. (2-tailed)	.000	.000	.253	.279	.000		.001	.161
Current Ratio	Pearson Correlation	.275**	.204**	.208**	.499**	.312**	.242**	1	.820**
	Sig. (2-tailed)	.000	.006	.005	.000	.000	.001		.000
Quick Ratio	Pearson Correlation	.120	.082	.057	.284**	.144	.105	.820**	1
	Sig. (2-tailed)	.107	.272	.445	.000	.054	.161	.000	
**. Correlation is significant at the 0.01 level (2-tailed).									
*. Correlation is significant at the 0.05 level (2-tailed).									

Result of correlation analysis in Table 2. observe that ROA is significantly correlated with Current Ratio with correlation coefficient .275 and corresponding p value .000 which is $< .05$ (level of significance) but not significantly correlated with Quick Ratio with correlation coefficient of .120 with corresponding p value .107 which is $> .05$ (level of significance). Similarly, ROE is significantly correlated with Current Ratio with correlation coefficient .204 and corresponding p value .006 which is $< .05$ (level of significance) but not significantly correlated with Quick Ratio with correlation coefficient .082 and corresponding p value .272 which is $> .05$ (level of significance). In the similar way ROCE is significantly correlated with Current Ratio with correlation coefficient .208 and corresponding p value .005 which is $< .05$ (level of significance) but not significantly correlated with Quick Ratio with correlation coefficient .057 and corresponding p value .445 which is $> .05$ (level of significance). EBIT is significantly correlated with both Current Ratio and Quick Ratio with correlation coefficient .499 and .284 respectively with corresponding p value .000 and .000 respectively which is $< .05$ (level of significance). Whereas, PBT is significantly correlated with Current Ratio and but not with Quick Ratio with correlation coefficient .312 and .144 respectively with corresponding p value .000 and .054 respectively. Similar is the case with Net Profit Margin as it is also significantly correlated with Current Ratio and not with Quick Ratio with correlation coefficient .242 and .105 respectively with corresponding p value .001 and .161 respectively.

3. Panel Regression Analysis of Profitability and Liquidity Indicator

Regression analysis is used to find out cause and effect relationship between one dependent and several independent variables.

$$\text{Model 1: } RoA_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

Table 3: Regression Coefficient of Model 1

Variable	Coefficient Estimate	Std. Error	t-value	Pr(> t)	Status
(Intercept)	4.0124	1.6087	-2.4942	0.01781	*
Current Ratio	8.6765	2.1821	3.9761	0.00036	***
Quick Ratio	-9.2441	3.9568	-2.3363	0.02570	*
R-Squared: 0.35554, Adj. R-Squared: 0.31648					
F-statistic: 9.10293 on 2 and 33 DF, p-value: 0.00071073					

The Table 3 shows the summary of panel regression model 1. Firstly, the study performed analysis of variance to test the null hypothesis $H_{01}: \beta_1 = \beta_2 = 0$ against the alternate hypothesis $H_{11}: \text{At least one } \beta_i \text{ is significant}$. Study obtained F-statistics 9.10293 with p values 0.00071073 which is less than 0.05 (level of significance). That means independent variable is contributing significantly in the model. The individual regression coefficients, t value and corresponding p values are mentioned in the table and study find that current ratio and quick ratio both are contributing significantly in this model. The study finds that Current ratio is positively affecting and Quick Ratio is negatively affecting ROA.

$$\text{Model 2: } RoE_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

Table 4: Regression Coefficient of Model 2

Variable	Coefficient Estimate	Std. Error	t-value	Pr(> t)	Status
(Intercept)	-45.516	11.233	-4.0521	0.0002902	***
Current Ratio	61.336	15.237	4.0255	0.0003129	***
Quick Ratio	-74.101	27.628	-2.6821	0.0113388	*
R-Squared: 0.34328, Adj. R-Squared: 0.30347					
F-statistic: 8.62468 on 2 and 33 DF, p-value: 0.00097012					

The Table 4 shows the summary of panel regression model 2. Firstly, the study performed analysis of variance to test the null hypothesis $H_{02}: \beta_1 = \beta_2 = 0$ against the alternate

hypothesis H_{12} : *Atleast one β_i is significant*. The study obtained F-statistics 8.62468 with p values 0.00097012 which is less than 0.05 (level of significance). That means independent variable is contributing significantly in the model. The individual regression coefficients, t value and corresponding p values are mentioned in the table and the study finds that current ratio and quick ratio both are contributing significantly in this model. Study also finds that Current ratio is positively affecting and Quick Ratio is negatively affecting ROE.

$$\text{Model 3: } RoCE_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

Table 5: Regression Coefficient of Model 3

Variable	Coefficient Estimate	Std. Error	t-value	Pr(> t)	Status
(Intercept)	-19.510	11.339	-1.7206	0.09469	
Current Ratio	39.903	15.381	2.5943	0.01403	*
Quick Ratio	-47.608	27.890	-1.7070	0.09721	
R-Squared:0.1794, Adj. R-Squared: 0.12966					
F-statistic: 3.60714 on 2 and 33 DF, p-value: 0.038301					

The Table 5 shows the summary of panel regression model 3. Firstly, the study performed analysis of variance to test the null hypothesis $H_{03}: \beta_1 = \beta_2 = 0$ against the alternate hypothesis H_{13} : *Atleast one β_i is significant*. The study obtained F-statistics 3.60714 with p values 0.038301 which is less than 0.05 (level of significance). It can be seen that only one independent variable i.e., Current Ratio is contributing significantly in the model. The individual regression coefficients, t value and corresponding p values are mentioned in the table and the study also finds that Current ratio is positively and Quick Ratio is negatively affecting ROCE.

$$\text{Model 4: } EBIT_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

Table 6: Regression Coefficient of Model 4

Variable	Coefficient Estimate	Std. Error	t-value	Pr(> t)	Status
(Intercept)	-7.1698	2.8202	-2.5423	0.0158896	*
Current Ratio	15.9549	3.8255	4.1707	0.0002067	***
Quick Ratio	-11.9952	6.9365	-1.7293	0.0931035	
R-Squared:0.43689, Adj. R-Squared: 0.40276					
F-statistic: 12.8013 on 2 and 33 DF, p-value: 7.671e-05					

The Table 6 shows the summary of panel regression model 4. Firstly, the study performed analysis of variance to test the null hypothesis $H_{04}: \beta_1 = \beta_2 = 0$ against the alternate hypothesis H_{14} : *Atleast one β_i is significant*. The study obtained F-statistics 12.8013 with p values 7.671e-05 which is greater than 0.05 (level of significance). It can be seen that only one independent variable i.e., Current Ratio is contributing significantly in the model. The individual regression coefficients, t value and corresponding p values are mentioned in the table and the study also finds that Current ratio is positively affecting and Quick Ratio is negatively affecting EBIT.

$$\text{Model 5: } PBT_{it} = \beta_0 + \beta_1 CR_{it} + \beta_2 QR_{it} + u_t$$

Table 7: Regression Coefficient of Model 5

Variable	Coefficient Estimate	Std. Error	t-value	Pr(> t)	Status
(Intercept)	-10.3275	2.3897	-4.3216	0.0001339	***
Current Ratio	17.3374	3.2416	5.3485	6.596e-06	***
Quick Ratio	-17.0617	5.8777	-2.9028	0.0065456	**
R-Squared:0.5135, Adj. R-Squared: 0.48401					
F-statistic: 17.4156 on 2 and 33 DF, p-value: 6.8689e-06					

The Table 7 shows the summary of panel regression model 5. Firstly, the study performed analysis of variance to test the null hypothesis $H_{05}: \beta_1 = \beta_2 = 0$ against the alternate hypothesis H_{15} : Atleast one β_i is significant. The study obtained F-statistics 17.4156 with p values 6.8689e-06 which is greater than 0.05 (level of significance). It can be seen that both independent variables i.e., Current Ratio and Quick Ratio are contributing significantly in the model. The individual regression coefficients, t value and corresponding p values are mentioned in the table and the study also finds that Current ratio is positively affecting and Quick Ratio is negatively affecting PBT.

$$\text{Model 6: Net Profit Margin}_{it} = \beta_0 + \beta_1 \text{CR}_{it} + \beta_2 \text{QR}_{it} + u_t$$

Table 8: Regression Coefficient of Model 6

Variable	Coefficient Estimate	Std. Error	t-value	Pr(> t)	Status
(Intercept)	-7.3830	2.4432	-3.0219	0.0048273	**
Current Ratio	13.1988	3.3140	3.9827	0.0003534	***
Quick Ratio	-13.8448	6.0092	-2.3039	0.0276613	*
R-Squared: 0.35876, Adj. R-Squared: 0.3199					
F-statistic: 9.23144 on 2 and 33 DF, p-value: 0.00065438					
Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1					

Table 8 shows the summary of panel regression model 6. Firstly, the study performed analysis of variance to test the null hypothesis $H_{06}: \beta_1 = \beta_2 = 0$ against the alternate hypothesis H_{16} : Atleast one β_i is significant. The study obtained F-statistics 9.23144 with p values 0.00065438 which is less than 0.05 (level of significance). It can be seen that both independent variables Current Ratio and Quick Ratio are contributing significantly in the model. The individual regression coefficients, t value and corresponding p values are mentioned in the table and the study finds that Current ratio is positively affecting and Quick Ratio is negatively affecting Net Profit Margin.

CONCLUSION

The present paper was aimed at investigating the influence of liquidity on returns. The study was conducted on the BSE Listed sugar companies. A sample of 36 sugar companies for the period of 5 years starting from 2018 to 2022 was examined. The data was analysed using correlation and panel regression modelling to study the cause-and-effect relationship between the profitability and liquidity indicators.

The result of correlation analysis showed a significant correlation between the liquidity and profitability. Especially the Current Ratio is seen to be significantly correlated with all the profitability indicators but Quick Ratio is found to be significantly correlated only with EBIT. Furthermore, the panel regression analysis showed that Current ratio is contributing significantly in each model. Quick Ratio was not found to be significantly contributing in the panel regression model 3 and 4.

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INTERNATIONAL RADIO QSL CARDS AND SOCIAL CULTURAL VALUES**¹N. Vijayakumar and ²Dr. T. Jaisakthivel**¹(Ph.D) Research Scholar and ²Assistant Professor, Department of Journalism and Communication, University of Madras, Chennai- 600005**ABSTRACT**

QSL card is collected worldwide by active radio listeners, but many people are unaware of it. People may have common opinion like QSL means like postal card. But it has many different features with postal cards. QSL card cannot be collected with simple procedure. At the same time some of International Radio stations are issuing the QSL cards for first reach through easiest way.

QSL cards confirm either a two-way radio communication between two amateur radio stations or a one-way reception of a signal from an AM radio, FM radio, television or shortwave broadcasting station. They can also confirm the reception of a two-way radio communication by a third party listener. A typical QSL card is the same size and made from the same material as a typical postcard, and most are sent through the mail as such. Before collecting QSL card a radio listener should aware on reception report. That report must include the details of date and time of programme broadcasted. Heard way by particular listener via short wave radio sets, online etc., Signal strength and listener's thought about particular programmes also mentioned. QSL card is known as an important and valuable document that brings towards us the information about the culture and society, throughout the world. In this reason, this research study is important to understand the features of QSL card and its social cultural values.

Keywords: Audience, Communication, Listener, Social, QSL, Radio,

1. INTRODUCTION

Radio is an audio device of passing messages to a mass audience. It is also an attractive medium among the various mass communication media because of its special characteristics. There was a long period of relations between the radio and the broadcasting station. This was because a radio had the interests of its listeners and their ideas, and at the same time had the positions to be retained as long term audiences. Radio stations have long tradition for distributing QSL card, to the listeners who are hearing the events deeply and exchange their feedback. In general term QSL card is known as verification card or Reception report. It is in vogue at the beginning of the nineteenth century on a world scale. QSL card bearing a variety of information like various images, information about particular radio programme etc., This is an excellent document to record history and to record information about the race, language and memory of particular country.

Commonly the word QSL has no direct expansion. In general term this is accepted as Viewer's confirmation report. In broadcasting industry 'Q' is known as Code of communication. This tool is used to determine whether or not the radio is clearly listening to the readers. Radio stations are sent Greeting cards and small prizes to entertain the listeners and maintain them as long term audience. QSL cards include the contents of information as follows; Day of Programme, time (GMT), Name of the programme, Quality of programme with 1 to 5 rating. Quality means clarity of sound that also named as 'Synpo' Rating.

QSL cards confirm either a two-way radio communication between two amateur radio stations or a one-way reception of a signal from an AM radio, FM radio, television or shortwave broadcasting station. They can also confirm the reception of a two-way radio communication by a third party listener. A typical QSL card is the same size and made from the same material as a typical postcard, and most are sent through the mail as such.

1.1 Significance of the Study

The nineteenth and twentieth centuries were the period when the use of electronic communication devices usage began to increase. Advances in information technology have made it possible for related electronic devices to become more readily available to the public. The radio transistor sets was commensurate with the purchasing power of the common people. It was considered the golden age of radio development. Due to this situation the number of radio listeners increased significantly. Listeners who have been listening to the Radio programmes continuously have been sending in their comments to the programme authorities of respective radio stations through post letters. Radio station authorities also responded that comments through proper way. This kind of action is the base of QSL cards distribution. It was distributed as an official document unlike the ordinary reply letter. Because of this reason, many radio listeners have the long tradition of QSL collection practice from international radio stations. These cards are shared internationally by Radio stations and carry a wide range of information about respective countries. Printed various images or art work on QSL cards, it reveals information including the culture, lifestyle and tourism development of the respective country. It helps and makes the way for an individual can learn many things about a particular country. Another one important reason for this study is that even many of long-term Radio listeners are also not aware of it. Conducting research on Radio QSL cards is an important step, because it carries a wide range of social and cultural information worldwide.

1.2 Practice of QSL collection

Many of the public are collecting various old products related to their memories. The practice of Numismatics (Coin and money) and Philatelist (stamp) collecting is known as one of the best practices in the world. Old Coins / Currency and vintage products like clock, car etc., that have been collected by public for a long time are of great value. Similarly QSL cards gathering also partially accepted as interesting practice towards deep radio listeners. It has been collected and exhibited through online for public access by some of radio listeners. The methods of receiving QSL cards are clearly mentioned on various International Radio websites and listener's website.

QSL collector's general opinion is "Many of radio stations strictly follow the guidelines on sending QSL. At the same time, for the first time recipient, some of radios like Czech Republic radio station provide that with minimum formalities to encourage the audience. If we want collect rare cards, we should give hard and continuous effort. Radio Saint Helena that distributing the QSL card to the active listeners only once a year. This kind of cards considered as rare QSL, and the value for this is very high. Many of International sellers become to sell the old cards through online because of expensiveness. Online marketers like Amazon and some other websites also engaging the rare QSL cards for sales".

1.3 Objectives of the Study

- ✓ To study the importance of Radio QSL cards collection
- ✓ To identify the interest of Radio audience towards QSL collection
- ✓ To analyze the Social cultural value of QSL cards

2. LITERATURE REVIEW

Radio involves the process by which messages are sent through electrical waves. In other words, the sound could be sent and received through these waves. The word Radio is defined as the process of sending and receiving messages through the air, using electromagnetic waves. It is also about the activity of broadcasting programmes for people to listen to the programmes being broadcast. "Radio and television are gifts of the twentieth century to humanity. The development of radio of mass communication however cannot be attributed to any single man or nation. The main technical hurdle in the way of wireless voice broadcasting was overcome by the discovery of a means high frequency alternating transmission" (K.M. Shrivastava, 1989.).

The first Internet radio service launched in 1993. As of 2017, the most popular internet radio platforms and applications in the world include Tunnel radio, Iherat radio and Sirius FM. "Internet radio has now become a great source of entertainment. With the coming of radio on internet, the traditional radio has lost its importance to some extent. With the increasing number of internet users, the people who listen to internet radio have also increases" (James Ash brook, 2020).

"QSL" is one of a number of three-letter abbreviations, all beginning with the letter "Q" developed as a shorthand way of communicating in the early days of radio, when messages consisted of Morse code. "QSL?" meant a question, "Did you receive my message?" and its answer, "QSL" meant "I received your message.(Ronald Kenyon,2020)"

The expression "QSL card" or just "QSL" gradually came to be used among radio-amateurs and then more broadly as radio began to develop as a mass medium. Radio stations were keen to know how well and how far away their programmes could be heard and began to send their listeners "QSL cards" in return for reception reports. Domestic broadcasters do not tend to use QSL cards these days, but their popularity remains among radio stations broadcasting internationally.

3. METHODOLOGY

In-depth interviews or Intensive interviews are a qualitative data collection method that allows for the collection of a large amount of information about the behaviour, attitude and perception of the interviewees. During in –depth interviews, researchers and participants have the freedom to explore additional points and change the direction of the process when necessary. It is an independent research method that can adopt multiple strategies according to the needs of the research. In this method, Interviewers have greater opportunity to ask follow-up questions, probe for additional information, and circle back key questions later on in the interview to generate a rich understanding of attitudes, perceptions, motivations etc. in-depth interview can take place face – to –face, or over the phone.

4. ANALYSIS AND INTERPRETATION

Mr. Rakesh, Radio listener and QSL card collector says, "Gathering QSL card from international radio station through radio listening is a wonderful experience". Further he said, "Radio listener and QSL card collector point of view is "Many of the QSL collectors have no proper contact with respective stations. If we follow the world radios as audience on regular basis, we get some idea about their point of view. Then we send our ideas about their programmes clearly after that we can receive hard copy of QSL cards through by post or soft copies through online. Any how hard copies of QSL cards are the effective sources in my personal point of view. Most of gatherers showing interest towards hard (printed QSL cards) copies collection".

4.1, QSL Images and Cultural Meaning

Mr. Neelakandan, leading Radio QSL cards gatherer, explained about its social values in the following statement, "As a document of QSL card is highly valuable. It cannot be compared with any other official document released by particular Govt., Or NGO. Because it is officially given to individuals (Radio listener) issued by Radio station officials, they depends on the particular nation. A lot of useful information related to the social and cultural aspects of particular country can be clearly learned through its picture. Apart from that, one can know a lot of information including wealth of a country, people's lifestyle, dressing, food and development of radio technology. Today we can get a lot of information about any one country through the internet. But QSL cards image give us accurate and authoritative information.

"QSL cards convey the cultural meaning of a country. Here in this context a sign plays the role for promotion of the country. Composing the QSL card in a proper framing with various picture

compositions will give better result in presentation. A picture with a good composition with cultural text will give complete information to any audience. Text and image on QSL interpretation in a design gives complete meaning to the viewer. On my perspective a QSL card is an artifact of a country or state which identifies the cultural meaning of the country or state. (Dr.Elango, Acadamecian and Researcher).

Mr. Ganesan, (member of Radio listener's club) pointed out, "QSL is a not just like a card. Its images reflect the particular country's culture. These QSL cards will print photos that reflect the culture, heritage, modern technology and sports of the country. They also print and send radio recordings, broadcast times, shortwave numbers, and Internet addresses. These photographs are a mute or talkative medium that shares information about the country's culture, culture, politics, technology, and sports".

"QSL collection method is a popular one among world radio listeners. Many are collecting without contact with the outside world. Many people from India have collected this and created a record. Mr. Siddhartha Pattacharya (West Bengal) set a world record on 2019. His name is inscribed in the Guinness Book of World Records for Highest verification cards collection. Mr. Arun Narshiman and Papul Gupta also known as leading QSL collectors in India". (Dr. T.Jaisakthivel, Academician & QSL collector).

5. CONCLUSION

Generally people have the passion for collecting some of their favorite things has been around for a long time. This behavior may vary from person to another. QSL card collection started as a normal action then it has followed worldwide by the Radio audience. According to Radio researchers, QSL cards are understood as the relationship bridge between the International Radio stations and listeners. It is also a valuable document that makes it easy to learn information about a particular country and its social structure and culture. Most of the public and radio listeners have a different opinion about QSL cards. It is traditionally collected by worldwide radio listeners. At the same time awareness on QSL cards related details are very low. Human society can learn new information from each gathering of things. The field of Numismatics has the power to expose the historical background. Philatelist field allows you to learn information about different countries from anywhere. QSL cards also take place in such an important order. Above analysis highlighted on 'QSL cards images reflects important information about social and cultural value of a particular country. Continuation of research has the potential to create an awareness about QSL cards among the general public and especially Radio listeners.

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INTERNATIONAL TRADE AND DIGITAL ECONOMY: BIBLIOMETRIC ANALYSIS BASED ON SCOPUS DATABASE (2000-2022)

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ABSTRACT

A bibliometric analysis of the relationship between trade openness and digital economy is presented in the study. The quantitative analysis is carried out to identify the main areas and current dynamics in this field and to suggest future research questions. We examined 96 publications from the Scopus database to identify research activities between 2000 and early 2022. This study identifies the main areas and current dynamics on international trade and digital economy; and suggests future research questions. Using a bibliometric analysis (biblioshiny; R package), we identify the scientific production, publication patterns, conceptual structure, social structure, and intellectual structure in this field. The study reveals that international trade and digital economy has a strong association, and these two entities have a strong linkage with sustainable development. There is a lack of literature in this field of study as only 96 publications are available including conference papers; reveals the most potential research areas that could be vital to work in near future is trade, sustainability, and digital economy.

Keywords: International trade; digital economy; sustainability; bibliometric analysis; bibliometrix R software

I. INTRODUCTION

Digital technology plays a crucial role in how we live, learn, work, and participate in the economic activities. Digitalization contributed in the openness of internal trade between different economies; trade expands in size, scope, and speed as a result of digitalization. It enables businesses to reach a large number of global audience of customers who are digitally connected with new products and services. Although there isn't a single definition of digital trade that is widely recognized and accepted, however, OECD explained it as “digitally-enabled trade transactions in goods and services that can either be digitally or physically delivered, and that involve consumers, firms, and governments”(Digital Trade - OECD, 2022). Access to digital technologies has removed barriers to internationalization and contributed to growing trade competitiveness among various economies. Digitalization has also changed the scope and speed of activities undertaken by companies, enabling faster and easier value creation, creating new ecosystems for exchange, and helping companies better connect with each other and consumers around the world (López González & Ferencz, 2018). The theoretical literature on trade openness and the digital economy shows that digitalization plays an important role in trade openness and trade has a positive impact on economic growth when it interacts with the digital economy. A study based on 53 countries in Africa shows that trade digitalization has a positive effect on economic growth (Abendin & Duan, 2021a). Also, another study demonstrates that digitalization and trade openness are sources of economic growth for the wealthiest Asian nations (Weriemmi et al., 2022). Some literature discussed that digital economy in developing countries may lead to fear of isolation; therefore, it is necessary to create information infrastructure in these economies (Bajaj, 2001).

Our study is focused on to establish a linkage between international trade/trade openness and digital economy. The objective of the study is to analyze current developments between these two entities (trade and digital economy) and to emphasize on what are the potential research

areas related to this field. Our study used the evaluative techniques and performance analysis to identify possible patterns, correlation, links between trade openness/international trade and digital economy in order to detect potential future trends in this field. Further, the research methods include identification of temporal/spatial distribution and measure the impact of authors/citations/scientific production/publication pattern/intellectual structure in this field. Also, the co-citation analysis is used in the study to identify the relations among authors or journals or documents using citation data, whereas the bibliographic coupling/mapping is intended to analyze the citing documents. Similarly, the co-word analysis is used to study the article keywords that are mainly used to assess the conceptual structure of a concerning subject. The study emphasizes on analysis of research hotspots based on the occurrence of indexed keywords, productive researchers, and journals during 2000–2022.

To confirm the originality of the study, as per the authors knowledge, this is the first study that analyzes the linkage between “trade openness (international trade)” and “digital economy” based on a text mining approach, using the specialized bibliometric software Bibliomertix R-package indicating the originality of this study. Our study is useful to make comparisons with phenomena / processes / events in contemporary economic and social reality in the field of trade openness and digital economy. The study identifies the main areas and current dynamics of trade openness and economic growth relationship; and suggest future research directions. To the best of our knowledge, this study is the first to combine bibliometric analysis and cluster analysis on international trade- digital economy relationship.

We address the following research questions (RQs): RQ1: What is the current publication trend in international trade-digital economy relationship worldwide? RQ2: Which are the most influential articles in this area? RQ3: Who are the most influential authors in this filed? RQ4: Which are the relevant journals in this area? RQ5: Which themes involving international trade and digital economy relationship are the most popular among scholars? RQ6: What is the intellectual structure of current research on international trade and digital economy relationship? RQ7: What areas involving international trade-digital economy relationship need additional study?

II. MATERIALS AND METHODS

The Scopus database (2000-2022) was used in this study to retrieve publications (articles) data in the domain of trade openness (international trade) and digital economy. The data query was set up on 16 August 2022 based on the following keywords: “trade openness (international trade),” “digital economy,” to establish a linkage between these two terms. Table 1 shows the search strategy and data retrieval process for the study. After setting up the query, we have applied two filters; first filter is type of document (only articles in English language) and second filter is applied on subject area (Social science; Economics, econometrics & Finance). The total number of articles received after applying both the filters were 96 articles related to trade openness/international trade and digital economy. This is a small dataset indicating less availability of work in this area.

Table 1: Search strategy and Process of data retrieval	
Date	16-08-2022
Database	Scopus
Search string	International trade (trade openness) and Digital economy
First stage filters	Document Type: Article; Language: English
Result	118 journal articles in English
Second stage filters	Subject area filters from Scopus categories applied Social science; Economics, econometrics & Finance
Result	96 articles from relevant subject areas

Based on the search strategy, 96 articles with all bibliographic details were collected, their metainformation is presented in Table 2. For this study, a series of analyses were performed using biblioshiny R- package to explain growth of publications, author analysis, journal analysis, country specific analysis, and to visualize the impact of the scientific production worldwide (Aria & Cuccurullo, 2022).

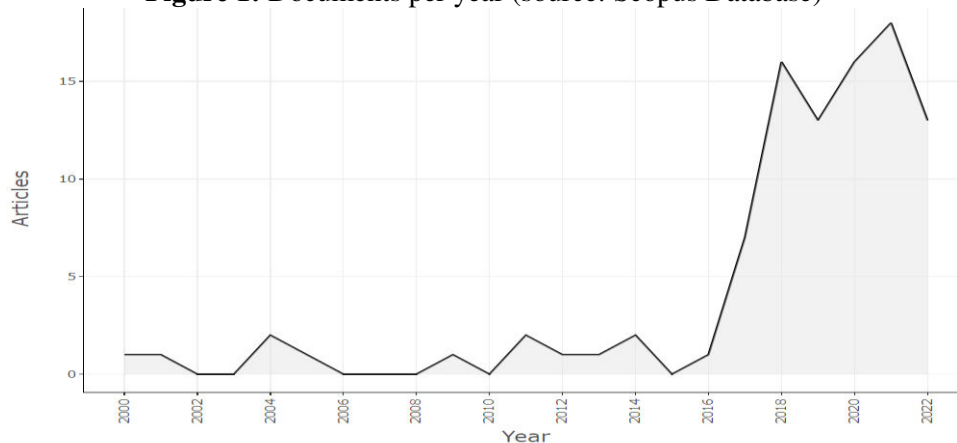
Table 2: Metainformation of the Dataset (source: Bibliometrix R)	
Description	Results
Period of study	2000:2022
Total number of Articles	96
Authors	208
Sources (books, journals, etc.)	68
Scopus keywords	571
Author's keywords	310
Single-authored articles	33
Authors of single-authored articles	31
International co-authorships %	7.292
Average citations per doc	3.833
Co-Authors per Doc	2.44

III. RESULTS AND ANALYSES

Temporal Analysis

To address the RQ1 (What is the current publication trend in international trade-digital economy relationship worldwide?), temporal evolution of scientific knowledge in this field ("international trade" and economic growth") has been analyzed since 2000. In the Figure 1, y axis shows the articles annual scientific production, and the x axis shows the years. From 1 document in 2000 to 2 documents in 2004 to 16 documents in 2018 to 18 documents in 2021, the relationship has steadily increased since 2017 (7 documents).

Figure 1: Documents per year (source: Scopus Database)



Spatial Distribution of Publication and Document Affiliation

A total of 122 institutions/organizations from 27 countries have participated in the publication data retrieved from the Scopus database related to international trade and digital economy relationship, within a duration of 2000-2022. Table 3 shows the geographical distribution of the prolific countries based on the corresponding author's country. China has contributed 22 articles, while USA (11), Ukraine (10), Germany (5) and Canada (4) are in second, third, fourth and fifth positions, respectively. This shows a low scientific production in this field.

Table 3: Top countries ranked by citations	
Country	Total Publications
China	22
USA	11
Ukraine	10
Germany	5
Canada	4
Italy	3
Uzbekistan	3
Bahrain	2
Brazil	2
France	2

Ranked by citations, the top 10 countries/regions are depicted in Table 4, among which the top three countries are China (87), Italy (17) and Kazakhstan (10). This is clear from the table that there is a lack of multiple country publications in this area.

Table 4: Top 10 Countries ranked by citations						
Country	TC	AAC	TP	SCP	MCP	MCP Ratio
China	87	7.91	11	10	1	0.091
Italy	17	17.00	1	0	1	1
Kazakhstan	10	10.00	1	1	0	0
Georgia	9	9.00	1	1	0	0
Canada	5	2.50	2	2	0	0
Russia	3	1.50	2	2	0	0
Switzerland	3	3.00	1	1	0	0
USA	3	0.75	4	4	0	0
Indonesia	2	2.00	1	1	0	0
United Kingdom	2	2.00	1	1	0	0

TC Total citations, TP Total Publications, AAC average article per citations, SCP single country publications, MCP multiple country publications

From an institutional perspective Table 5, the top five influential institutions indicated by total publications are St. Petersburg Polytechnic University (4), National University of Science and Technology (3), Russian Presidential Academy of National Economy and Public Administration (3), Saint Petersburg State University (3), and Southwest State University (3).

Table 5: Top 10 Institution on International Trade and Digital economy by articles	
Institutions/Organizations	TP
St. Petersburg Polytechnic University	4
National University of Science and Technology	3
Russian Presidential Academy of National Economy and Public Administration	3
Saint Petersburg State University	3
Southwest State University	3
Tashkent State University of Economics	3
Voronezh State Technical University	3
Zhejiang University	3
Ahlia University	2
Anhui University of Finance and Economics	2

TP Total Publications**Top Cited Articles**

To address the RQ2: Which are the most influential articles in this area, we analyzed the citation network of 96 articles and used biblioshiny software to get top cited articles presented in Table 6.

Table 6: Top cited Articles in field of international trade and digital economy				
Authors	Title	TC	Year	Source Title
Umer Shahzada, Diogo Ferrazbcd, Huu-HuanNguyene & LianbiaoCui	Investigating the spill overs and connectedness between financial globalization, high-tech industries and environmental footprints: Fresh evidence in context of China	57	2022	Technological Forecasting and Social Change
Aleksei V. Bogoviz, Pavel M. Taranov & Alexander V. Shuvaev	Innovational Tools for Provision of Food Security Through State Support for the Agro-Industrial Complex in the Conditions of Digital Economy	29	2018	Advances in Intelligent Systems and Computing
Brian Bieron & Usman Ahmed	Regulating E-commerce through International Policy: Understanding the International Trade Law Issues of E-commerce	22	2012	Journal of World Trade
Shuzhong Ma, Jiwen Guo & Hongsheng Zhang	Policy Analysis and Development Evaluation of Digital Trade: An International Comparison	11	2019	China & World Economy
Arsen Tleppayev	Digitalization and energy: world experience and evidence of correlation from Kazakhstan	10	2019	Annals of Ecology and Environmental Science
Milton Mueller & Karl Grindal	Data flows and the digital economy: information as a mobile factor of production	9	2019	Digital Policy, Regulation and Governance
Simon Abendin & Pingfang Duan	International trade and economic growth in Africa: The role of the digital economy	8	2021	Cogent Economics & Finance
Iryna Strutynska, Halyna Kozbur, Lesia Dmytrotsa, Ihor Bodnarchuk & Olha Hlado	Small and Medium Business Structures Clustering Method Based on Their Digital Maturity	6	2019	IEEE International Conference on Computational Science and Engineering, CSE
V G Zakshevsky, O G Charykova & I N Merenkova	Strategic priorities for developing the agro-industrial complex and rural areas of the region	6	2019	IOP Conf. Series: Earth and Environmental Science

Vujica Lazović & Tamara Đuričković	The digital economy in developing countries - challenges and opportunities	6	2014	
Kamlesh K. Bajaj	Asia's Leap into E-commerce: Analysis of Developments in Some Countries	6	2010	Prometheus
Shiou-Yu Chen	Exploring digital capital of automated cargo clearance business websites	5	2011	Expert Systems with Applications
Maria Romanyuk, Maria Sukharnikova & Natalia Chekmareva	Trends of the digital economy development in Russia	3	2021	IOP Conference Series: Earth and Environmental Science

TC Total Citations

Recent studies in this field are (Romanyuk et al., 2021) and (Shahzad et al., 2022). These studies explain the role of digitalization in international trade and economic growth. A study of Romanyuk emphasized that high degree of digitalization of social infrastructure and public administration does not lead to an increase in the country's GDP. The study of Shahzad examined the connection between China's environmental footprint, high-tech sectors (includes digitalization), and financial and trade globalisation; the study concluded that the contribution of the high technology industry has a negligible effect on lowering environmental footprints. Further (Mueller & Grindal, 2019), examined how digital information exchanges connect to global trade.

Moreover, the study of (Abendin & Duan, 2021b) discussed the digital economy and international trade relationship in the African region and shows that digital trade has a positive impact on economic growth, economic prosperity and output elasticities of capital and labour have positive as well as negative impacts on economic growth. The author suggests that continuous efforts are needed to ensure international trade's full economic effect in Africa. In case of China, (Ma et al., 2019), analysed the digital trade-related policies and its impact on growth. Developing countries face so many obstacles to meet the demands of the digital economy. Although they have a chance to transform their economies and contribute to the development of the digital economy (Lazović & Đuričković, 2014) that will contribute to growth.

There are many more literature focusing on the issue of environment, trade, digital transform, development. For instance, the second highest cited article of (Bogoviz et al., 2018) discussed the association between digital economy and agro-industrial sector in Russia. (Ahmed & Bieron, 2012) analysed the rapid growth of the e-commerce economy and the history of past US free trade agreement e-commerce provisions and proposes ways to improve and update the provisions. Further a study by (Tleppayev, 2019) estimated the impact of technological and economic factors on energy intensity in Kazakhstan. (Strutynska et al., 2019) highlights the digitalization of the Ukrainian Ternopil region and its impact on small and medium-sized enterprises.

AUTHOR ANALYSIS

To answer this RQ (RQ3: Who are the most influential authors in this filed?), we performed author analysis using bibliometric R. One thousand authors have directly or indirectly contributed to publication of research articles on international trade and digital economy. The five most-cited authors (total number of citations per authors) were Umer Shahzada, Diogo Ferrazbcd, Huu-HuanNguyene & LianbiaoCui (57 citation) followed by Aleksei V. Bogoviz,

Pavel M. Taranov & Alexander V. Shuvaev (29 citation), Brian Bieron & Usman Ahmed (22 citation), Shuzhong Ma, Jiwen Guo & Hongsheng Zhang (11 citation and Arsen Tleppayey (10 citation). The most prolific authors in this field are Cui L, Ferraz D, Nguyen Hh & Shahzad, followed by Bataev, Kostuhin Y, Shkarupeta E & Tolstukh T, and Bogoviz, Shuvaev & Taranov PM (as shown in Table 7). The rest authors have worked in a diversified scientific field, adding value to international trade and digital economy.

Table 7: Top 10 authors on international trade and digital economy relationship by citations						
Element	h_index	g_index	m_index	TC	NP	PY_start
Cui L, Ferraz D, Nguyen Hh & Shahzad	1	1	1	57	1	2022
Bataev Av	2	3	0.4	45	3	2018
Kostuhin Y, Shkarupeta E & Tolstukh T	3	3	0.5	37	3	2017
Bogoviz Av, Shuvaev Av & Taranov Pm	1	1	0.2	29	1	2018
Karapetyants I	2	2	0.333	25	2	2017
Ahmed U & Bieron B	1	1	0.091	22	1	2012
Riccaboni M, Rossi A & Schiavo S	1	1	0.1	17	1	2013
Krasnikova A	1	1	0.167	13	1	2017
Syshhikova E & Zhaglovskaya A	1	1	0.167	12	1	2017
Guo J, Ma S & Zhang	1	1	0.25	11	1	2019

TC Total citations, TP Total Publications

Journal Analysis

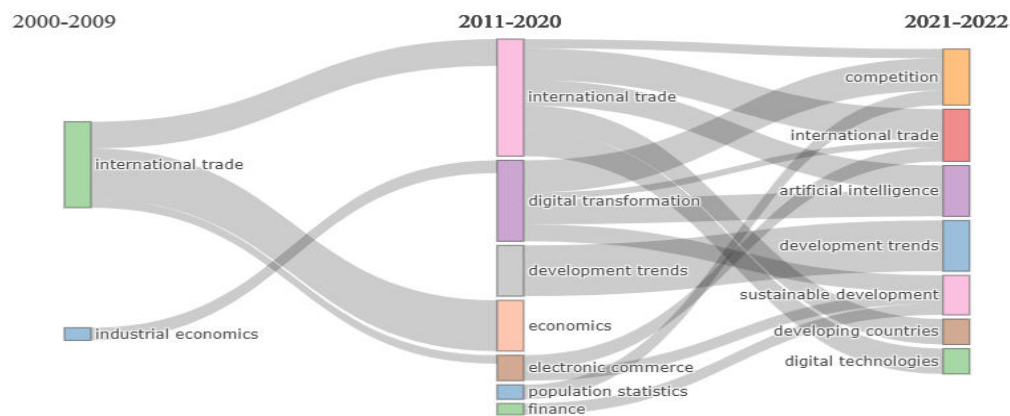
To address the RQ4 (Which are the relevant journals in this area?), we analyzed the total number of 96 retrieved articles published in 68 different sources. As observed from Table 8, E3S Web of Conferences (NP = 5), Advances in Intelligent Systems and Computing has the highest number of research papers (NP =4), followed by proceedings of the 30th International Business Information Management Association Conference, IBIMA 2017 - Vision 2020: Sustainable Economic Development, Innovation Management, and Global Growth (NP = 3), IOP Conference Series: Earth and Environmental Science (2), and Journal of World Trade (2). It is noted that most of the publications are conference papers (if use the filter on document type and remove conference paper publications then only 20 articles are available in this field).

Table 8: Main Journals of Publication (2000-Early 2022; Source: Scopus Database)				
Source of Publications	h index	TC	TP	PY_Start
E3s Web of Conferences	2	10	5	2020
Advances In Intelligent Systems and Computing	3	36	4	2018
Proceedings Of The 30th International Business Information Management Association Conference, Ibima 2017 - Vision 2020: Sustainable Economic Development, Innovation Management, And Global Growth	3	30	3	2017
Proceedings of The 31st International Business Information Management Association Conference, Ibima 2018: Innovation Management and Education Excellence Through Vision 2020	2	55	3	2018
IOP Conference Series: Earth and Environmental Science	2	9	2	2019
Journal of World Trade	2	24	2	2012
World Economy and International Relations	2	10	2	2019
37th International Convention on Information and Communication Technology, Electronics and Microelectronics, Mipro 2014 – Proceedings	1	6	1	2014
IEEE International Scientific-Practical Conference: Problems of Infocommunications Science and Technology, Pic S And T 2019 – Proceedings	1	6	1	2019
ACM International Conference Proceeding Series	1	2	1	2020

Thematic Evolution

To address the research question 5 (RQ5: Which themes involving international trade and digital economy relationship are the most popular among scholars?), figure 2 represents major themes in different time frame. For instance, international trade and industrial economics were two major research themes between 2000-2009. Later, new themes such as digital transformation, e-commerce, were added in the duration of 2011-2020. After 2020, major themes include international trade, digital economy, sustainable development, AI and developing countries.

Figure 2: Thematic evolution of international trade and digital economy relationship



Keyword Analysis

To address this RQ (RQ6: What is the intellectual structure of current research on international trade and digital economy relationship?), we analyzed the titles, abstracts and keywords generated from the Scopus database (2000-2022). Using biblioshiny-R package, the situation of the keywords resulted, ordered as per the frequency of occurrence is presented in Table 9.

Table 9: Keywords with high frequency		
No.	Keywords	Frequency
1	international trade	62
2	digital economy	28
3	economic and social effects	14
4	electronic commerce	13
5	competition	12
6	digital transformation	11
7	sustainable development	11
8	investments	9
9	global market	8
10	digital technologies	7
11	productivity	7
12	big data	6
13	developing countries	6
14	economic development	6
15	finance	6

Keywords Cluster Analysis

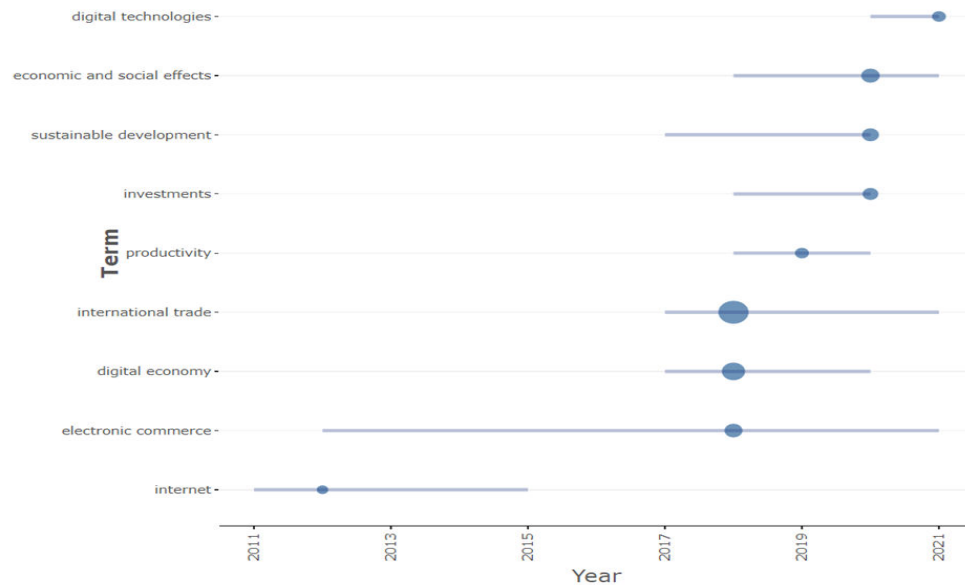
To address the RQ7 (What areas involving international trade-digital economy relationship need additional study?), the cluster analysis of keywords performed using biblioshiny. The bibliometric analysis of all keywords used in the Scopus database from 2000-2022 provides a structured assessment of this domain, as presented in Figure 3. A total of three clusters (international trade and digital economy, digital transformation, and sustainable development) were obtained, which are represented by red, green, and blue color for cluster 1, 2 and 3 respectively. The first cluster represented by red color focuses on international trade with strong association with digital economy. The second cluster in green color focuses on digital transformation and third cluster of blue color focuses on sustainable development. It can be observed from the cluster that cluster 1 is prominent cluster with the strong link with keywords from other clusters.

Figure 3: Keyword Cluster (Source: Scopus Database, 2000-Early 2022)



DISCUSSION

In the previous sections of the study, we tried to explain the association among various keywords related to the international trade-digital economy relationship. The cluster analyses provide outcomes that represent the keywords that dominate the study area at present and the future research directions on interdisciplinary topics related to international trade and digital economy relationship. Three clusters contain the high frequencies and most utilized words in this field, according to the analysis. There is a strong association among three clusters; this reflects the scope of research is higher in terms of international trade, digital economy, and sustainable development. Figure 4 represents the trending topics for research in this field. It makes it clear that digital technologies, sustainable development, international trade are most demanding topics.

Figure 4: Trend Research Topic in field of international trade and digital economy

CONCLUSION

The relationship between international trade and digital economy has not received much attention in India or elsewhere. The results of this analysis confirm that there is room for further research in this area, particularly on the relationship between international trade and digital economy. Additionally, there is a huge research gap in the areas of digital transformation and sustainable development. The relationship between international trade, digital economy and sustainability are hardly included in research area in India or many other economies. More in-depth, methodologically sound macro-level studies on the relationship between international trade and digital economy may offer more sustainable and technical insights.

DISCLOSURE STATEMENT

No potential conflict of interest to declare.

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INVESTIGATING THE IMPACT OF MEDIA EXPOSURE ON YOUNG CONSUMERS' GREEN PURCHASE INTENTION: THE MEDIATION EFFECT OF ENVIRONMENTAL CONSCIOUSNESS

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ABSTRACT

With the advent of cheaper media technology in recent times, public awareness and intention for environmentally friendly products have increased many folds as the media play an important role in bringing awareness and confidence among the population, especially the youth. The study aims to test the role of awareness and confidence through media exposure in spreading green purchase intention among young consumers while understanding the mediating effect of environmental consciousness on the relationship between the role of media and green purchase intention among young consumers. The exploratory research design used 616 university students as a sample. A Questionnaire made on Google Forms was sent via various social media platforms using the snowball sampling technique to collect the data. The SmartPLS 4 was used for data analysis. It was discovered that awareness through media exposure had no substantial impact on young customers' green purchase intentions. However, young consumers' intentions to make green purchases were significantly impacted by their confidence resulting from media exposure. Further, findings revealed that environmental consciousness was a complementing partial mediator between the role of the media and the intention to make green purchases.

Keywords: Media Exposure, Green Purchase Intention, Environmental Consciousness, Young Consumers, SmartPLS

INTRODUCTION

Globally, it is evident that environmental consciousness and social opinion in institutions are crucial for the successful implementation of environmental management policies. It is well known that media coverage of environmental concerns helps the general public's attitudes and understanding of those issues. Exposure to a matter in the media can lead to a greater understanding, strengthen opinions, and reinforce attitudes already held (Calvert, 2011; Khan & Ali, 2017). Knowledge gained through widespread communication has a tendency to elevate environmental consciousness. Enhanced environmental consciousness also increases the likelihood of pro-environmental actions and democratic involvement.

In the last 20 years, there has been a shift in consumer preference toward a greener, more eco-friendly lifestyle that emphasises minimising one's negative effects on the planet. After the 1990s, researchers began analysing individuals' green attitudes and behaviours, giving green marketers and policymakers managerial insights that enabled them to successfully commercialise their green ideas and products (Manjula M M, 2017). Kollmuss and Agyeman (2002) define a pro-environmental attitude as "behavior that consciously seeks to limit the negative effects of one's actions on the natural and built world."

Environmental concerns and their impacts on human health are receiving increased attention from academics, governments and non-profit organisations (Haytko and Matulich, 2008). As a consequence, there has been a shift toward environmental sustainability, which has led to altered preferences and habits on the part of the general public (Mendelson and Polonsky, 1995). Among the many options available for helping the planet, going green with one's purchases is a great place to start (Gordon-Wilson and Modi, 2015). Recently, consumers have

shown concern for the nature by opting for eco-friendly produces and services (Nimse et al., 2007), and this shift toward eco-conscious purchasing habits is known as "green consumerism" (Moisander, 2007). While the green effort has grown speedily in the West, consumers in developing countries like India are becoming more open to the idea (Raghavan and Vahanvati, 2008). Indian researches on ecological challenges and eco-buying remains in its infancy when compared to those of other emerging nations (Khare, 2015). Therefore, it is essential for marketers to grasp consumer sentiment toward eco-friendly goods. In marketing research domain, academics and scholars are very involved in identifying the elements that impact consumers' choice to purchase environmentally friendly goods (Ling-Yee, 1997; Chan and Lau, 2002). In the context of industrialised nations, numerous research have been undertaken on customer purchase intent and behaviour regarding a diverse variety of green produces (Kalafatis et al., 1999; Han et al., 2010; Ha and Janda, 2012; Lee et al., 2019). A limited number of research have examined Indian consumers' responses to green or environmentally friendly items (Biswas and Roy, 2015; Khare, 2015).

Public and private spheres are typically involved in environmentally conscious behaviour (Stern et al., 1999). This study focuses on the private domain, which consists of the acquisition, utilisation, and disposal of personal and domestic products that have an influence on the environment, as it pertains to consumers research (Stern, 1999).

The goal of the current study is to comprehend how media exposure affects young customers' intention to purchase green purchases. The study will further investigate how environmental consciousness mediates the link between media exposure and intentions to make green purchases.

Theoretical Background and Hypotheses' Development

In the study, a conceptual model was created in order to comprehend the relationship between the function of media and the intention to make green purchases, as well as how environmental awareness mediates this relationship.

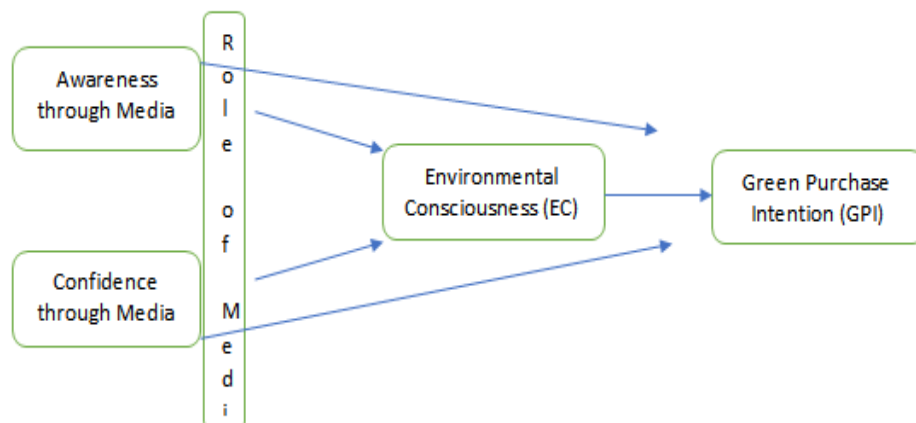


Fig 1: - Proposed Model

Environmental Consciousness

Environmental consciousness is an individual's pro-environmental orientation (Lin & Chang, 2012). This involves environmental awareness and pro-environmental behaviour (Dunlap & Jones, 2002; Mishal et al., 2017). Over the past two decades, various attempts have been made by researchers to define environmental consciousness. Concern for the planet drives consumers to opt for environmentally friendly products (Peattie, 2001; Schlegelmilch, Bohlen, & Diamantopoulous, 1996). Environmental-conscious consumers are more likely to alter their spending habits in order to benefit the environment (Chase, 1991). Having environmental

awareness would lead people to make positive changes in their day-to-day actions, such as those involving transportation, garbage disposal, consumer choices, energy consumption, and other areas. Ohtomo and Hirose (2007) showed, however, that environmentalists may not always act more sustainably, either in their daily lives or in their purchase decisions; for instance, even environmentally conscious individuals may litter if they see others doing so. Nordlund and Garvill (2002) and Pickett-Baker and Ozaki (2008) say that the gap between values and actions could be caused by competition between short-term personal gain and long-term benefits to society.

Environmentally concerned shoppers may believe their green purchases would benefit the environment and ecosystem. When consumers care more about the environment and are environmentally conscious, they'll try to reduce their environmental impact. According to academic research (Mostafa, 2007), there is a direct and significant relationship between environmental consciousness and a consumer's attitude and desire to buy green items (Paul et al., 2016; Yadav and Pathak, 2016).

Media and Green Purchase Intention

"Green buying intention" (GPI) refers to all of the actions that a customer does to either have a positive impact on the environment or to decrease the bad impact that they have on the environment. It's (GPI) the propensity to buy environmentally friendly products that is signalled by the consumer for the greater good of the planet (Chan, 2001; Akehurst et al., 2012; Dagher and Itani, 2014). Buying environmentally friendly goods directly affects a number of environmental issues (Mostafa, 2007). Intentions to make environmentally responsible purchases and long-term commitments to doing so are both influenced and strengthened by consumers' exposure to environmental advertising (Chekima et al. 2015). There would be less uncertainty about consumers' decisions to buy green items with the help of peer references, and this would encourage them to care more about the environment. For this reason, it is crucial for businesses to spread positive viral marketing of enough information about green products through the most popular forms of media (Suki & Suki 2015).

Media's Role and Environmental Issues

Environmental media coverage can increase or decrease public attention and affect political discussions. In the past, the media were viewed as information sources and influencers. The news media's coverage of important problems raises public awareness and has the power to persuade viewers. Media is now seen as a social engagement through a well-adjusted flow of knowledge and experience. Members must analyse the media's role in environmental conservation and progressive management (Hansen, 2010). People often get facts about ecological issues via the media (McCombs, 1995). It could be vital by offering practical information on environmental concerns and opportunities. Arcury (1990) claimed that ecological quality is an inconspicuous issue (one that individuals do not immediately perceive), hence the public requires the media to convince them how critical an environmental issue is. Hansen (2010, p. 50) said "media discourses assist form and determine the bounds of environmental conversation and understanding." Policymakers frequently use media campaigns in an effort to sway public opinion on contentious issues. Media coverage shifts rapidly from one topic to the next, sometimes within a single day, demonstrating the short-lived nature of the media's impact on public opinion (Driedger, 2007). It has been established that the media's focus on various topics varies significantly over time, often following discernible cycles (Downs, 1972). The media is a powerful tool in order to increase people's understanding of environmental problems (Schoenfeld et al., 1979; Slovic, 2000). Many environmental campaigns, like those that try to save energy and cut down on waste (e.g., Viklund, 2004), have used the media.

Media coverage of environmental issues has been the subject of numerous quantitative and qualitative studies. Many researchers have attempted to explain the causes of media attention cycles while others have merely tracked their flow (e.g., Weingart et al. 2000; Brossard et al. 2004; Major and Atwood 2004; Carvalho and Burgess 2005).

Although it is related to behavioural objectives, media exposure does have some effect on knowledge of climate challenges, but it cannot be fully described by formulas. The media's inability to always mobilise and raise awareness is the most intriguing reality (Arlt et al. 2011). Since the media heavily influences customers' attitudes and their degrees of engagement in environmental activities and behaviours, increasing the frequency and dose of media can help maximise consumers' awareness of environmental problems and foster a positive attitude (Qader and Zainuddin 2011). Determining the factors that affect consumers' attitudes towards social media will help companies in managing their marketing strategies to increase their sales (Çakır et al., 2013).

The function of communication, especially mass media, in development is well-known. Agbesinyale, Tuurosong, and Kendie (2014). Communication technologies serve as both barometers and catalysts of societal shifts. The media are a "mobility multiplier," able to communicate with large audiences at once and so responsible for the spread of new knowledge, beliefs, and practises. Morgan (1981) says environmental education raises public awareness of environmental issues. Dalelo (2007) agrees that environmental education is needed to raise public knowledge regarding human environmental impacts. Environmental and development issues must be more widely understood. Environmental education helps people understand how their actions influence the environment, analyse issues, and make informed decisions.

Most of these studies have examined how the general public, in their roles as media consumers, comprehend environmental concerns. However, there has been a dearth of research into whether or not environmental issues are more widely known as a result of increased media attention.

From above mentioned review, following hypotheses are proposed:

- H1.** Green purchase intention is significantly and positively influenced by media exposure.
- H2.** Confidence through media exposure significantly and positively influence green purchase intention.
- H3.** Awareness through Media Exposure significantly and positively influence Environmental Consciousness.
- H4.** Confidence through Media Exposure significant influence Environmental Consciousness.
- H5.** Environmental consciousness has a significant and positive influence green purchase intention.
- H6.** Environmental Consciousness mediates the relationship between awareness through media exposure and Green Purchase intention.
- H7.** Environmental Consciousness mediates the relationship between Confidence through media exposure and green purchase intention.

METHODOLOGY

Data Collection and the Sample

A well-structured questionnaire was applied to assess the quantitative study and explore the relationships of the suggested model. English was the language of the field investigation. The bifurcated questionnaire has two sections. The first part asks about the target population's demographics, including their age, income level, gender, education level, and marital status. The

other part of the questionnaire uses a five-point Likert scale to gauge environmental consciousness, media exposure, and green purchase intention.

Through self-administered surveys, data from the young adult group of consumers (age 18 years. to 35 years) was gathered. Young adults and educated people can more easily understand the green behavioural phenomena under examination, which causes them to answer surveys more accurately than children and others with less education (Chan, 2001; Paul et al., 2016; Kumar et al., 2017). At first, 100 people took part in a pilot test of the questionnaire. As a result, a few changes were made to the final survey tool to make it easier for the target population to understand.

Data was analysed using SPSS 22 and SmartPLS Version 4 was used for the (Structural Equation Modelling) SEM and (Confirmatory Factor Analysis) CFA. The automatically recorded data answers were captured with help of Google Forms. The build data set variables were coded in SPSS format. Manual data cleansing and screening found errors and missing numbers. After using the standard deviation method, the wrong answers were taken out, leaving a total of 616 responses.

Respondents Profile

In the present study, 311 males (50.1%) and 305 females (49.5%) were surveyed out of a total of 616 suitable individuals to determine their demographic features. The majority of respondents were youngsters in the age between 18–23 years (63%) and 24–29 years (26.9%), followed by those between ages 30–35 years (10.1%). In terms of education, 55.4% and 36.0% of respondents are graduates and postgraduates, respectively. Only 8.6% of respondents were Ph.D. holders, according to the responses. On the basis of their family's' yearly income, 52.6% belong to the income groups of less than 3 lakh rupees and 30.4% of respondents belong to the income groups between 3 and 6 lakh rupees followed by 17.0% who earn more than 6 lakh rupees yearly. Therefore, this sample profile indicates that the respondents are young adults with a high level of education who are more knowledgeable about the subject being studied (Chan, 2001). This makes them more likely to engage in ecologically responsible actions and show a greater propensity to buy green goods. Young, educated Indians could therefore be regarded as the current and potential clients for green products.

The Measures

Current research has adapted items from previous studies in order to measure the effect of the media on young consumers' intentions to make green purchases. Items were created using several constructs that covered all facets of media and young consumers' intentions to make green purchases. Five items from Dunlap and Van Liere (1978), Grunert and Juhl (1995), Wandel and Bugge (1997), Heimlich (2008), Whitmarsh and O'Neill (2010), Lee (2011), Kanchanapibul et al. (2013), and Barbarossa and De Pelsmacker (2016) were used to measure general environmental consciousness (EC). Thirteen items were taken from studies such as Chan (2004), Lee (2008), Bruhn et al. (2012), and Pham et al. (2012) to assess the role of the media (ME_Conf & ME_Env). The sample's green purchase intentions were assessed using four questions culled from a number of studies, including Lee and Green (1991), Michaelidou and Hassan (2008), Chang and Chen (2012), Lizawati et al. (2012), Medeiros et al. (2015), and Yadav and Pathak (2016).

RESULTS

The Measurement Model

The goal of measuring the outer measurement model was to evaluate the validity, internal consistency, and reliability of variables that are evaluated using a questionnaire (Ho, 2013). While validity evaluations make use of convergent and discriminant validity, consistency estimations are based on observed and concept reliability evaluation.

According to Heir et al. (2016), the average outer loadings extended from 0.713 to 0.798, which is within the recommended threshold limit. Cronbach's alpha and Composite Reliability (CR) were employed to evaluate the construct reliability's internal consistency. Cronbach's alpha and (CR) composite reliability for all structures were above 0.80 (Hair et al., 2011), as shown in Table 1 below. Thus, Cronbach's alpha and (CR) composite reliability suggested that the scales were rationally reliable and that all latent construct values were above the minimum 0.70 requirement (Hair et al., 2011). To validate the Convergent Validity (CV) of the variables and the Average Variance Extracted (AVE) of each latent construct was determined (Fornell & Larcker, 1981). The latent components of the model should account for at least fifty percent of the observed variable's variation. This suggests that the AVE for all constructs should be greater than 0.5. All average variance extracted (AVE) values were greater than 0.5, confirming the convergent validity of the model used in this investigation. These results validated the convergent validity and high internal consistency of measurement model. Using (Heterotrait-Monotrait Ratio) HTMT, the correlation between the constructs is estimated. To determine discriminant validity, the HTMT ratio is used. Kline (2011) advocated a minimum criterion of 0.85. As observed in table 2, the HTMT ratio was below the minimum criterion of 0.85.

Consequently, the proposed conceptual model was assumed to be acceptable, with confirmation of suitable reliability, convergent validity, and discriminant validity, as well as the validation of the research model

Table1: Measurement Model Assessment

Variable Name	Average Loadings	Convergent Validity (AVE)	Cronbach's Alpha	Composite Reliability
ME_Awe	0.714	0.511	0.809	0.862
ME_Conf	0.713	0.510	0.840	0.879
EC	0.714	0.512	0.761	0.839
GPI	0.798	0.642	0.813	0.877

Note: ME_Awe = Awareness through Media Exposure, ME_Conf = Confidence through Media Exposure, EC = Environmental Consciousness and GPI = Green Purchase Intention

Table 2: Discriminant Validity (HTMT)

	EC	GPI	ME_Conf	ME_Awe
EC				
GPI	0.582			
ME_Conf	0.592	0.748		
ME_Awe	0.578	0.500	0.696	

Note: ME_Awe = Awareness through Media Exposure, ME_Conf = Confidence through Media Exposure, EC = Environmental Consciousness and GPI = Green Purchase Intention

Table 3: Outer Loadings

Items	EC	GPI	ME_Conf	ME_Awe
EC3	0.653			
EC4	0.720			
EC5	0.738			
EC6	0.772			
EC7	0.688			
GPI1		0.849		
GPI2		0.854		
GPI3		0.800		
GPI4		0.691		
GPI_Trust1			0.663	

GPI_Trust2			0.638	
GPI_Trust3			0.721	
ME_Conf1			0.741	
ME_Conf2			0.722	
ME_Conf4			0.757	
ME_Conf5			0.751	
ME_Env2				0.686
ME_Env4				0.640
ME_Env6				0.787
ME_Env7				0.712
ME_Env8				0.746
ME_Env9				0.716

Note: ME_Awe = Awareness through Media Exposure, ME_Conf = Confidence through Media Exposure, EC = Environmental Consciousness and GPI = Green Purchase Intention

Researcher verified the measurement model's reliability and validity. The outcomes of the Inner Structural Model were then measured. This involved observing the conceptual linkages as well as the predictive relevance of the model. The main metrics for judging the inner structural model are the coefficient of determination (R^2), Path coefficient (β value) and T-statistic value, Effect size (f^2), Predictive relevance of the model (Q^2), and PLSpredict.

Structural Model

The Variance Inflation Factor (VIF) measures multicollinearity among indicators (Fornell & Bookstein, 1982). Here multicollinearity was not a concern as the Variance Inflation Factor (VIF) is under 5 (Hair et al. (2016). Indicators' VIFs are below the suggested threshold, as shown in the table below.

Table 4: Multicollinearity Statistics (VIF) for indicator

Items	VIF
EC3	1.371
EC4	1.457
EC5	1.484
EC6	1.561
EC7	1.351
GPI1	1.967
GPI2	2.058
GPI3	1.614
GPI4	1.412
GPI_Trust1	1.53
GPI_Trust2	1.401
GPI_Trust3	1.597
ME_Conf1	1.711
ME_Conf2	1.578
ME_Conf4	1.895
ME_Conf5	1.798
ME_Env2	1.404
ME_Env4	1.343
ME_Env6	1.867
ME_Env7	1.627
ME_Env8	1.583
ME_Env9	1.470

The Explained Variance (R^2)

Explained variance is the proportion of each predicted variable's volatility that can be explained (R^2). The Low R^2 values show the model cannot explain the endogenous Latent Variable (LV), calling into doubt the tested model's theory. Chin (1998) says R^2 values of 0.67 are significant, 0.33 are moderate, and 0.19 are weak. R^2 values are most important when evaluating primary target LVs. In this study, R^2 exceeded the weak and moderate threshold limits.

Table 5: The explained variance (R^2)

Constructs	R Square
EC	0.284
GPI	0.441

The Effect Size (f^2)

Cohen's f^2 measures the effect of an independent construct on a dependent construct (Cohen 1988). Cohen's f^2 is 0, 0.04, 0.15, and 0.35, which means that there is no effect, small effect, moderate effect, and large effect (Chin 1998). Table 6 displays the model's effect size where Awareness through Media Exposure (ME_Awe) has a larger effect size ($f^2 = 0.853$) on dependent variable green purchase intention (GPI), effect size of independent variable environmental consciousness (EC) on green purchase intention (GPI) was found to be slightly above moderate ($f^2 = 0.016$). The effect size of confidence through media exposure (ME_Conf) on dependent variable environmental consciousness (EC) were between no effect to small effect ($f^2 = 0.001$). The effect size of awareness through media exposure (ME_Awe) on environmental consciousness (EC) were found between small and moderate ($f^2 = 0.007$). Finally study found that the effect size of confidence through media exposure (ME_Conf) has no effect ($f^2 = 0.000$) on the dependent variable green purchase intention (GPI).

Table 6: The effect size (f^2)

	f^2
EC -> GPI	0.016
ME_Conf -> EC	0.001
ME_Conf -> GPI	0.000
ME_Awe -> EC	0.007
ME_Awe -> GPI	0.853

The Prediction Relevance (Q^2)

Prediction Relevance (Q^2) measures the model's ability to predict endogenous LV measurement items (Gaiser 1974; Stone 1974). Q^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large predictive importance. The higher Q^2 , the more predictive the Latent Variable (Henseler et al. 2009; Urbach and Ahlemann 2010). $Q^2 > 0$ indicates the model's predictive significance with regard to a certain explanatory LV. The model is operating well when the anticipated measurement items closely resemble the original data. The Q^2 values for all constructs were significantly more than zero, indicating that the model had predictive relevance (Q^2) for the dependent latent variables (Hair et al., 2014). The model in the study explained 27.3% of the variation in environmental awareness (medium predictive importance) and 40.1% of the variation in the intention to buy green (large predictive importance).

Table 7: The Prediction Relevance (Q^2)

Constructs	Q^2_{predict}
EC	0.273
GPI	0.401

PLS Predict

The PLSpredict algorithm predicts PLS model performance to support predictive relevance (Shmueli et al., 2016). For simulation, we use PLSpredict with 10 folds and 10 repetitions. For interpretation, the researcher focuses on the model's endogenous constructs (EC and GPI).

As a first step, researchers find that all endogenous constructs' indicators transcend the most basic standard (i.e., the training sample indicator means), as they all provide Q^2 predict values larger than 0. Researchers analyse prediction errors to identify the relevant prediction statistics. Figures suggest PLS-SEM mistakes aren't normally distributed. Visually, the prediction errors don't suggest an unequal distribution. Researcher evaluate prediction ability using RMSE.

First, we can examine the indicator's RMSE. EC and GPI are measured on a 5-point scale and have a 0.79 RMSE. This range is almost the full measurement scale for the indicators, so it must be adequate. (2018) Only 5 of the 9 PLS-SEM indicators had RMSE values above the naive LM benchmark, indicating that the rest had values below the standard. According to PLS-SEM, the model has medium predictive power.

Table 8: PLS Predict

	Q²predict	PLS-SEM_RMSE	LM_RMSE
EC3	0.104	0.775	0.775
EC4	0.152	0.749	0.754
EC5	0.115	0.904	0.912
EC6	0.183	0.780	0.782
EC7	0.142	0.902	0.904
GPI1	0.333	0.662	0.644
GPI2	0.264	0.718	0.701
GPI3	0.292	0.784	0.780
GPI4	0.128	0.866	0.848

Hypothesis Testing

The assumptions and structural model are tested using path coefficients between latent variables. To model a precise impact, a route coefficient of 0.1 is needed (Hair et al., 2011; Wetzels et al., 2009). All hypotheses except H1 were supported by the model's path coefficients (see Table 9). Supported hypotheses have predicted signals and are statistically significant at the 0.001 level.

After evaluating the measurement model, the next step is to evaluate the structural Model so that the path coefficient (the relationship between the study's constructs and their statistical significance) can be evaluated.

H1 evaluates whether awareness through media exposure significantly and positively affects green purchase intention. The findings revealed that raising awareness through media exposure has no effect on GPI ($\beta = 0.026$, $t = 0.601$, $p = 0.548$). Hence, H1 was not supported.

H2 investigates if the intention to make green purchases is significantly and favourably impacted by confidence through media exposure (ME_Conf). The findings demonstrated that confidence through media exposure (ME_Conf) had a significant and positive influence on green purchase intention (GPI) ($\beta = 0.524$, $t = 13.171$, $p < 0.001$). H2 was resultantly supported.

H3 assesses whether awareness through media exposure (ME_Awe) may significantly and favourably influence environmental consciousness (EC). According to the findings, awareness through media exposure (ME_Awe) can significantly and favourably affect environmental consciousness (EC) ($\beta = 0.286$, $t = 5.993$, $p < 0.001$). H3 was therefore supported.

H4 examines whether confidence through media exposure (ME_Conf) significantly and favourably influences one's environmental consciousness (EC). According to the findings, confidence through media exposure (ME_Conf) significantly and positively affects green purchase intention (GPI) ($\beta = 0.315$, $t = 7.185$, $p < 0.001$). H4 was therefore supported.

H5 assesses whether environmental consciousness significantly and favourably influences the intention to make green purchases (GPI). The findings showed that environmental consciousness (EC) significantly and positively affects green purchase intention (GPI) ($\beta = 0.206$, $t = 4.997$, $p < 0.001$). H5 was therefore supported.

Table 9: Statistical results of the structure model

	Hypothesis	β -Coefficient	T-Statistics	P Values	Results
H1	ME_Awe -> GPI	0.026	0.601	0.548	Not-Supported
H2	ME_Conf -> GPI	0.524	13.171	0.000**	Supported
H3	ME_Awe -> EC	0.286	5.993	0.000**	Supported
H4	ME_Conf -> EC	0.315	7.185	0.000**	Supported
H5	EC-> GPI	0.206	4.997	0.000**	Supported
	*Statistically significant at $p < 0.001$				

MEDIATION ANALYSIS

Mediation was done to assess the mediating effect of environmental consciousness (EC) in the linkage between media exposure and green purchase intention. The findings revealed that total effect of awareness through media exposure on GPI was significant ($\beta = 0.085$, $t = 2.002$, $p < 0.05$) and total effect of confidence through media exposure on GPI was significant ($\beta = 0.588$, $t = 16.602$, $p < 0.05$) (see Table 10). With inclusion of mediating variable (EC), the impact of ME_Awe on GPI was significant ($\beta = 0.059$, $t = 4.018$, $p < 0.05$) and the impact of ME_Conf on GPI was significant ($\beta = 0.065$, $t = 3.874$, $p < 0.05$) (see Table 11). The indirect effect of ME_Awe on GPI through EC was found significant ($\beta = 0.059$, $t = 4.018$, $p < 0.05$), indirect effect of ME_Conf on GPI through EC was found significant ($\beta = 0.065$, $t = 3.874$, $p < 0.05$). This shows that the relationship between independent variable ME_Awe, ME_Conf and Dependent variable green purchase intention was complementary partially mediated by environmental consciousness.

Table 10: Total effect

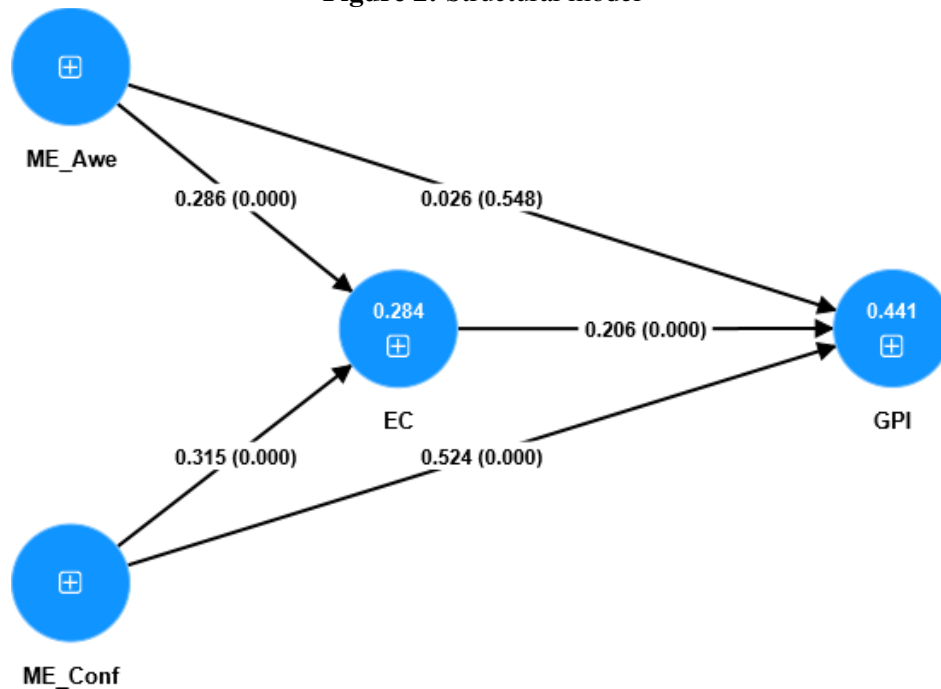
Total Effect	β -Coefficient	T-statistics	P-Value	Results
EC -> GPI	0.206	4.997	0.000**	Supported
ME_Awe -> EC	0.286	5.996	0.000**	Supported
ME_Awe -> GPI	0.085	2.002	0.045**	Supported
ME_Conf -> EC	0.315	7.185	0.000**	Supported
ME_Conf -> GPI	0.588	16.602	0.000**	Supported

*Statistically significant at $p < 0.05$

Table 11: Indirect effect

	Indirect effect	β -Coefficient	T-statistics	P-Value	Results
H6	ME_Awe -> EC -> GPI	0.059	4.018	0.000**	Supported
H7	ME_Conf -> EC -> GPI	0.065	3.874	0.000**	Supported

*Statistically significant at $p < 0.05$

Figure 2: Structural model

Note: *Statistically significant at $p < 0.001$, $p < 0.05$

FINDINGS

The PLS-SEM results found the relationship between Awareness through media exposure (ME_Awe) and (GPI) green purchase intention (GPI) insignificant. Whereas the confidence through media exposure (ME_Conf) has a significant impact on the (GPI) green purchase intention of young consumers.

The awareness bought from media exposure don't play any significant role in green purchase intention of young consumers. Whereas the confidence built with the help of media exposure does have a significant impact on green purchase intention.

Being a mediator variable in the present study, environmental consciousness (EC) found to be a significant partial mediator which complementarily partially mediates the relationship between the Awareness and confidence through media exposure and green purchase intention (GPI). The findings supported the findings of Good (2006) and Chen and Chai (2010), who demonstrated how media exposure influenced environmental sentiments. Additionally, the public's perception of green products was influenced by media coverage, which increased the public's desire to buy them.

MANAGERIAL IMPLICATION

Because sustainability concerns are mainstream, many organisations integrate them into business plans and marketing activities to gain a competitive edge. Green brand differentiates items by communicating their distinctive brand qualities and benefits. Businesses should give product and environmental information on their websites, their social media accounts, to improve consumer comprehension of green appliances and raise purchase intention. Environmental knowledge and consumer preferences for green products enhance buying intent. Firms must stress the quality and functionality of green products to increase their monetary value.

DISCUSSION, CONCLUSION AND RECOMMENDATION

The PLS-SEM approach using the SmartPLS 4 was used to understand the aforesaid relationship. And it was found that the awareness through media exposure has no significant impact on green purchase intention among young consumers. Whereas the confidence through media exposure do have a significant impact on the green purchase intention of young consumers. Further results found that environmental consciousness was a complementary partial mediator between role of media and green purchase intention.

To encourage behaviour that represents the concept of responsible consumerism and is beneficial for the individual, the environment, and other people. Being aware of often updated information, allowing for its diversification, providing community members with the opportunity to share engaging content, and continuing to contact with people who share similar interests all contribute to the spread of useful concepts. When this communication channel is used properly, attitudes can change through behaviour modification (e.g., promoting the concept of reduce, reuse, and recycle), improved awareness, increased involvement, and the ongoing viral dissemination of the idea to new audiences.

The SmartPLS results of this research offer academic contributions to the existing body of knowledge on consumer environmental behaviour by providing invaluable understanding of the influence of awareness and confidence through Media exposure, environmental consciousness on green purchase intention among young consumers. These results provide fresh and substantial inputs to marketing theory, whereby media exposure and environmental consciousness influence green product purchase intention. Empirically, environmental consciousness was a complementary partial mediator between awareness and confidence via media exposure and their green buying intent. Future researchers can explain the significance of the present work by using quantitative data analyses. The empirical findings add to consumer environmental behaviour literature.

LIMITATIONS AND FUTURE RESEARCH

The current study provided new insights into the subject, but it has some flaws that could be used as chances for future research, such as the fact that the sample from universities isn't representative of the younger population as a whole. Therefore, large-scale sampling is advised to increase the generalizability of the results. The study's R^2 value for consumers' intention to purchase green products was 44%, suggesting that there may be additional factors that influence consumers' purchasing intentions.

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INVESTMENT PROFILE OF THE INVESTORS – WITH REFERENCE TO MEDAK DISTRICT IN TELANGANA

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ABSTRACT

The primary purpose of this study is to examine the investment profile of the investors. The study is descriptive with a convenience sampling method. The sample of the study was 50 investors in government sector employees. The data was collected through a questionnaire. This paper examines the investment profile of the respondent and also studies the demotivating factors in making an investment. The result indicates that an inconsistent return was the most frequently demotivating factor in making the investment.

Keywords: Investment profile, investment making, government employees.

INTRODUCTION

“Investment is the process of, ‘Sacrificing something now for the prospect of gaining something later’. Definition implies there are three dimensions to an investment –time, today’s sacrifice and prospective gain. Investment is an economic activity which involves creation of assets or exchange of assets with a profit motive. It is the employment of funds with the purpose of earning additional income or growth in value. The person making an investment has to part with his funds. The funds may be converted into monetary assets or a claim on future money for a return. This return is an award for abstaining from present consumption for parting with the money or liquidity and for taking a risk. The risk may be about the return on investment, time of waiting, cost of getting back funds, safety of funds, variability of the return etc” (Gupta Shashi K. & Joshi Roshly 2009).

REVIEW OF LITERATURE

Atchyuthan N. & Yogendrarajah R. (2017) the purpose of this research was based on female employees in middle-level positions in government and private-sector companies. The researchers discovered that working women were largely unaware of investing opportunities and depended heavily on their husbands when making financial decisions. The majority of investors preferred bank savings and gold.

Chaurasia P (2017) in this research paper investigates the relationship between demographic factors and individual investors' investing preferences. The study found that fixed deposits were preferred the most, while capital market debt instruments were preferred the least.

Ramanathan K.V., Meenakshi Sundaram K.S. (2015) in their research study determines the impact of selected demographic factors and investment preferences. A systematic questionnaire was used to collect data, which was then analysed using %ages, chi-square tests, and Karl Pearson's correlation coefficient. The study's findings show that most investors saved money for their safety.

OBJECTIVES OF THE STUDY

- To know the investment profile of the investors
- To study the demotivating factors in making investment

DATA ANALYSIS**Table: 1** Distribution based on time taken to make an investment decision

Time taken	n	%
Less than a week	8	16
One to two weeks	11	22
Two to three weeks	14	28
More than three weeks	17	34
Total	50	100

Source: Survey Data

Table: 1 reveals the category observed most frequently in the time taken to the decision was more than three weeks (n = 17, 34%). While on the lower end, around 16 % of respondents took less than a week, there was 22 % of respondents took one to two weeks for investment decisions. Also, 28 % of respondents took two to three weeks for investment decisions.

Table: 2 Confidence about investment decision

Level of confidence	n	%
Highly confident	15	30
Low confident	11	22
Neutral	20	40
Not confident	4	8
Total	50	100

Source: Survey Data

Table 2 shows the respondents' distribution based on confidence about the investment decision. The category observed most frequently in confidence about investment decisions was neutral (n = 20, 40%). Among the others, around 30 % of respondents were highly confident, 22 % were low confident, and 8 % were not confident.

Table: 3 Time period taken to invest

Time period	n	%
Less than year	6	12
2-5 years	14	28
6-9 years	10	20
10-13 years	12	24
Above 13 years	8	16
Total	50	100

Source: Survey Data

Table 3 represents the distribution of respondents based on the time period taken to invest. The category observed most frequently in time was 2-5 years (n = 14, 28%). While 12 % indicated taking less than a year, 20 % indicated 6-9 years taken to invest. Similarly, while 24 % indicated a 10-13 years time period to invest, 16 % indicated taking above 13 years.

Table: 4 Frequency of making a review of investment

Frequency	n	%
Occasionally	17	34
Fortnightly	9	18
Once a month	12	24
Quarterly	7	14
Yearly	5	10
Total	50	100

Source: Survey Data

Table: 4 outlines the distribution of respondents based on the frequency of making a review of investment. The category observed most frequently in frequency was occasionally 34%. While 18 % of respondents indicated fortnightly, 24 % stated the frequency of review of investment as once a month. Fourteen % of respondents reviewed investments on a quarterly basis, and 10 % reviewed investments on a yearly basis.

Table: 5 Sources of funds for making investment

Source	n	%
Personal income	19	38
Income of family members	14	28
Personal borrowings	10	20
Inherited amount	7	14
Total	50	100

Source: Survey Data

Table: 5 illustrate the distribution of respondents based on sources of funds for making an investment. Personal income was most frequently observed in the fund 38%. Among the remaining, 28% indicated the income of family members, 20% indicated personal borrowing, and about 14% indicated inherited income as the source of funds for making an investment.

Table: 6 Demotivating factors in making investment

Factors	n	%
High-risk level	6	12
Inconsistent return	12	24
Lack of knowledge	9	18
Lack of support from family	7	14
Legal procedures	11	22
Other	5	10
Total	50	100

Source: Survey Data

Table 6 shows the respondents' distribution based on demotivating factors in making an investment. The category observed most frequently in demotivating factors in making the investment was the inconsistent return (n = 12, 24%). The following important factors demotivating towards investment are legal procedures (22%) and lack of knowledge (18%) of respondents. Lack of family support was reported by 14 % of respondents, and a high-risk level was reported by 12 % of respondents. In comparison, 10 % of respondents said other factors were demotivating towards making an investment.

CONCLUSION

This study concluded that the most frequently reported demotivating factor in making the investment was Inconsistent return, while 10% of respondents said other factors as demotivating towards making an investment. Personal income was the source of funds for making an investment category observed most frequently in the fund.

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KNOWLEDGE, SKILLS AND ABILITIES (KSA) REQUIRED TO BE SUCCESSFUL RESEARCHER IN SOCIAL SCIENCES

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ABSTRACT

This research paper reveals the requirements of educational researcher in social sciences and how it is done by the help of different knowledge, skills and abilities. The paper includes key features, research methods, and challenges of the research in educational field specifically and social science generally. The paper is concluded with the educational skills in different perspective in research particularly related to education these are basic factors of doing researches in social sciences in various stage of research.

Keywords: Knowledge, Skills, Abilities, successful researcher, Social science

INTRODUCTION

The idea of using knowledge, skills and abilities which leads to critical thinking, problem solving, taking initiative, and overall knowledge how to do research particular field, all are crucial for effectively conducting research. Hagin (1994) define social (science) research as the process which involves the interaction between ideas and evidence (outcome). That is, ideas enable social researchers make sense of evidence, and researchers use established evidence to extend, revise and test ideas. Hagin's book titled Constructing Social Research has contributed immensely to the teaching of social (science) research.

RESEARCH METHODOLOGY

Research methodology indicates the logic of development of the process used to generate theory that is procedural framework within which the research is conducted [Remenyi et al., 1998]. The methodology of this article is to discuss aspects of qualitative research in social sciences in some details. The data were collected to achieve the result for the purpose and scope of this study. In this study, secondary data are used to enrich the article. For the collection of secondary data, we have used both published and unpublished data sources.

RESEARCH METHODOLOGY FOR SOCIAL SCIENCES

It provides guidelines for designing and conducting evidence-based research in social sciences and interdisciplinary studies using both qualitative and quantitative data. Blending the particularity of different sub-disciplines and interdisciplinary nature of social sciences, this volume:

- Provides insights on epistemological issues and deliberates on debates over qualitative research methods;
- Covers different aspects of qualitative research techniques and evidence-based research techniques, including survey design, choice of sample, construction of indices, statistical inferences and data analysis;
- Discusses concepts, techniques and tools at different stages of research, beginning with the design of field surveys to collect raw data and then analyse it using statistical and econometric methods.

EDUCATIONAL RESEARCH

Education research is the scientific field of study that examines education and learning processes and the human attributes, interactions, organizations, and institutions that shape educational outcomes. It is used to understand, predict, explain and control human behavior

therefor data is collected and appropriate methods are utilized to conduct and analysis. The purpose may be acquiring understanding of the particular area or state concerning some matter on an issue. Education research embraces the full spectrum of rigorous methods appropriate to the questions being asked and also drives the development of new tools and methods.

Knowledge, Skills and Abilities (KSA) Required for Effectiveresearch

Knowledge: - In this context, knowledge pertains to a person's ability to understand specific concepts. Someone may know what a tool is for or have a basic textbook understanding of a process, but they may not know how to apply that knowledge in a real and tangible way.

Skills:-The term skills in relation to the KSA model refers to any capabilities or demonstrated proficiencies developed via Studying and while doing research. Someone with skills can apply their knowledge and understanding in a demonstrable way.

Abilities:-The abilities portion of the knowledge, skills and abilities model is similar to skills, but it has some distinct differences. A candidate with abilities has natural talents or traits that add value to your business/researches.

REVIEW OF RELATED LITERATURE

Natraj (2001) has stated that columns of EPW have featured some discussion over the past few months on the state of the social sciences in India. Although initially triggered by the near parlous financial condition of ICSSR-supported research institutes, the discussion widened and centered on some major issues. Among them the principal ones are state support for the social sciences, researchers' accountability and the quality of research, and the question of relevance.

Arora, A. (2011) a successful researcher tends to be a prolific collaborator who collaborates and publishes papers in several different research topics. Peer group also plays an important role in a researcher's productivity and good researchers tend to collaborate and cite each other more. Moreover, a successful researcher focuses on challenging problems which require time and garner a lot of citations, however, at the same time, he/she does not compromise on the quantity of research as well.

Conor (2015) has stated that researchers should be trained to become creative, critical and autonomous intellectual risk takers, pushing the boundaries of frontier research. It is essential to ensure that enough of them have the transferable modern skills demanded by an increasingly knowledge-based global economy. The skills acquired need to match the societal challenges that 21st century research will tackle. Examples of these modern skills include creativity, communication, teamwork, entrepreneurship, project management, IPR, ethics, standardisation, professionalism etc.

Saheed, A. (2019) concluded that social science research is a method to uncover social happenings in human societies. Through social research, new knowledge is derived to help societies progress and adapt to change. Today, the concept of social science research has become important to researchers especially for those in the social sciences. Through social research, the social world is better understood as ongoing, emerging, re-merging and newly emerging social problems are known. More so, solutions are derived through social research.

Knowledge Required for Doing Research in Social Sciences:

Social researchers have to investigate a number of social issues and then report their findings. A social researcher will use a variety of methods to gather their information; this can include questionnaires, focus groups and interviews. Their survey's findings can be used to change social policies or to test the effectiveness of a current one.

A social researcher investigates social issues and reports the findings to the relevant organizations. Scientists use various data collection methods to collect the information they use to evaluate human behavior. Here are some of the responsibilities that a researcher should have knowledge of the things given below:

- English Language - Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Social Science – Knowledge of different subjects of social science, about its history, branches, human behavior, social and cultural aspects, etc.
- Computers and Electronics - Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming
- Clerical - Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.
- Customer and Personal Service - Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- Education and Training - Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.
- Related Literature - Researcher have to explore and analyse several related researches of social science for gather better information for writing research paper.

Skills Required for Doing Research in Social Sciences:

Conducting good research requires first retraining your brain to think like a researcher. This requires visualizing the abstract from actual observations, mentally “connecting the dots” to identify hidden concepts and patterns, and synthesizing those patterns into generalizable laws and theories that apply to other contexts beyond the domain of the initial observations.

Research involves constantly moving back and forth from an empirical plane where observations are conducted to a theoretical plane where these observations are abstracted into generalizable laws and theories. This is a skill that takes many years to develop, is not something that is taught in graduate or doctoral programs or acquired in industry training, and is by far the biggest deficit amongst researchers. Some of the mental abstractions needed to think like a researcher include unit of analysis, constructs, models, induction, deduction, and so forth, which we will examine in this chapter.

One of the first decisions in any social science research is the unit of analysis of a scientific study. The unit of analysis refers to the person, collective, or object that is the target of the investigation. Typical unit of analysis include individuals, groups, organizations, countries, technologies, objects, and such. For instance, if we are interested in studying people’s shopping behavior, their learning outcomes, or their attitudes to new technologies, then the unit of analysis is the individual. If we want to study characteristics of street gangs or teamwork in organizations, then the unit of analysis is the group. If the goal of research is to understand how firms can improve profitability or make good executive decisions, then the unit of analysis is the firm. In this case, even though decisions are made by individuals in these firms, these individuals are presumed to represent their firm’s decision rather than their personal decisions.

If research is directed at understanding differences in national cultures, then the unit of analysis becomes a country. Even inanimate objects can serve as units of analysis. For instance, if a researcher is interested in understanding how to make web pages more attractive to its users, then the unit of analysis is a web page (and not users). If we wish to study how knowledge transfer occurs between two firms, then our unit of analysis becomes the dyad (the combination of firms that is sending and receiving knowledge).

Skill of ICT is also very important field of doing research works it allows the researcher to get the information about the introduction of computers, the precursor of our modern-day ICT, and the promising potentials of computer-based instruction and learning, many researchers and funding agencies were led to invest much of their resources to investigate the possibility of computers replacing teachers in key instructional roles (Roblyer, Castine and King, 1988). Moreover, the 'Everest Syndrome' (cited in Roblyer et al., 1988, p. 5) also resulted in many believing that computers should be brought into the education arena simply 'because they are there' and the resultant perpetuation of the myth that students would benefit qualitatively from computers by simply providing them with the software and hardware.

Abilities Required for Doing Research in Social Sciences:

Research skills are the ability to search for, find, collect, analyse, interpret and evaluate information that is relevant to Social science. Research shapes the future, it teaches us new things and helps us adapt and evolve. The basic social sciences abilities are to determine the nature of social sciences. They are a constituent to the content of social sciences but remain independent and relatively stable from the changing substance of a discipline. In sociology, while ideas, debates, theories, and methods of an area change with social, knowledge, and disciplinary forces, skills involved in developing, communicating, and promoting substantive contents in the area can remain the same. Students of sociology always need to read and understand the present literature, present and communicate their reactions, interpretations, and new ideas, and write and publish their contributions to the discipline.

The reading and comprehension abilities in social sciences therefore have unique dimensions. First, the process calls for speed in reading. Researcher of a social sciences discipline need to read fast to catch up with the development in the discipline. Second, it requires an adequate quantity of reading. Researcher need to read classical work, basic theories, and recent developments in sufficient amount to gain a firm grounding in the discipline. Third, it requires diversity in reading. Researcher need to read different topics and different points of view to appreciate the richness of a field. Fourth, it demands comprehension. Students need to understand the subject matter not only by line but also by context, rationale, intent, and implication. Finally, it includes interpretation. Students need to interpret the text in a sensible way so that an underlying conversation with the author can be established during and after the process of reading. Integrating all these dimensions into an individual capability, a person with an adequate reading and comprehension skills should have read extensively on his or her discipline.

Challenges Faced While Doing Research in Social Sciences:

- **Lack of Scientific Training:** The research methodology is not systematic. Many researchers undertake research work without having actual knowledge of the research methods. Even the guides do not have a thorough knowledge of the various methodologies. Before undertaking research projects, researchers should be well equipped with all the methodological aspects.
- **Lack of Communication with the Supervisor:** A university professor is a busy person. It is important to have guidance on a research project. Poor communication gets on the way of the progress of the research. It is important to communicate with the supervisor to clarify the doubts regarding the research topic, to know what the supervisor expects from you and to learn more about your research topic.
- **Time Management:** Spending ample time in learning the skills and practical implementation consumes a lot of time. In such a scenario, taking out time for intense research and to draft a top-notch research paper becomes impossible.

- **Not Having a Definite Deadline:** Deadlines are stressful. But not having a deadline can be troublesome during the Ph.D. journey. Deadlines help you get closer to your goals. Many times, Universities fail to implement a due date to submit the research paper, leading to confusion and improper time management among the scholars.
- **A Quantity of Literature:** It can be difficult to deal with the quantity of literature that one might have accessed. The literature review is iterative. This involves managing the literature, accessing data that supports the framework of the research, identifying keywords and alternative keywords, as well as constantly looking for new sources.
- **Implementing Quality of Writing Within the Literature Review:** A literature review has to go beyond being a series of references and citations. You need to interpret the literature and be able to position it within the context of your study. This requires careful and measured interpretation and writing in which you synthesize and bring together the materials that you have read.
- **Insufficient Data:** Insufficiency of data is a potential problem. Most of the business establishments are of the opinion that researchers may misuse the data provided by them. This affects the purpose of research studies for which that particular data may be of utmost importance.

SUGGESTIONS

- **Start broad, and then dive into the specifics.** Researching is a big task, so it can be overwhelming to know where to start—there's nothing wrong with a basic internet search to get you started. Online resources like Google and Wikipedia, while not always accurate, are a great way to orient yourself in a topic, since they usually give a basic overview with a brief history and any key points.
- **Learn how to recognize a quality source.** Not every source is reliable, so it's crucial that you can recognize the good sources from the not-so-good ones. To determine a reliable source, you'll need to use your analytical skills and critical thinking, and ask yourself the following questions: Does this source agree with other sources I have found? Is the author an expert in the field? Does the author's point of view have a conflict of interest regarding this topic?
- **Verify information from several sources.** The internet is a big place, and, for the most part, anyone can say whatever they want online—many websites don't evaluate their content for factual accuracy. This means that there are plenty of unreliable resources out there, and even many that are outright incorrect. The best way to combat this is to make sure that whatever you find in your research, several different sources can verify that it is true. Rather than going off of one webpage, make sure that at least two other places say something similar.
- **Be open to surprising answers.** Good research is all about finding answers to your research questions—not necessarily as a way to verify what you already think you know. Solely looking for confirmation is a very limiting research strategy, since it involves picking and choosing what information to collect and prevents you from developing the most accurate understanding of the topic. When you conduct research, make sure to keep an open mind so that you can learn as deeply as possible.
- **Stay organized.** During the data collection process, you'll be seeing a huge amount of information, from webpages to PDFs to videos. It's vital that you keep all of this information organized in some way to prevent yourself from losing something or not being able to cite something properly. There are plenty of ways to keep your research project organized, but here are a few common ones: Bookmarks in your Internet browser, index cards, and an annotated bibliography that you keep updated as you go.

- **Take advantage of library resources.** If you still have questions about researching, don't worry—there are plenty of places out there to help you out, even if you're not a student doing academic or course-related research. In fact, many high school and university libraries offer resources not only for faculty members' and students' research but for the larger community. Be sure to check out library websites for research guides or access to specific databases.

CONCLUSION

As per the above discussion it can be concluded that for doing researches and writing research papers knowledge, skills and abilities (KSA) holds the most important and basic part of a researcher, these three aspects are mandatory for doing any research in any field. Particularly in social sciences this research process reaches to another level, it requires keen observation and preparation before presenting things, Knowledge aspect in this field doesn't look like ending as this field has so much of research, criticism, debate. Social sciences is more than just a particular subject as it has sub subjects, sub topics and cover such a variety.

For such elaborated field a researcher should first of all have such a calm and accepting behavior as they face lots of criticism and debate, Apart from it they also should have organized way of thinking in any case, good analytical skills and use of technology can be such a supporting thing in process and way of writing research paper will be necessity for any of skills to be attained.

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MAKE MORE AS A FINANCIAL PLANNER

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ABSTRACT

A financial advisor must remain current on news and trends in the financial sector at all ages. Considering the importance of a client-planner relationship; in an increasingly digital world, aspiring financial advisors shouldn't underestimate the value of interpersonal connections. This paper can help existing and aspiring financial planners to make more as a financial advisor and have expertise in their profession. Various qualities sought in an advisor have been pointed out through relevant literature, some perceivable steps have also been discussed which may aid in making more as an advisor. For the purpose of this study, researcher has collected and analysed non-numerical data using personal interviews to understand concepts, opinions, or experiences of respondents keeping in view the primary objective of raise recommendations as to how to increase business as financial planners and better serve their clients. The research aims to gather in-depth insight into challenges faced and propose useful and practical recommendations for existing and aspiring financial planners. Financial planning is a competitive profession requiring focus, persistence and honesty. The competencies of an advisor should be their primary focus. The top piece of advice is to put the needs of the consumer first, concentrate on financial planning rather than the products, and always express an unbiased view.

Keywords: Financial Planners, Trust, Communication, Client-planner Relationship, Potential Clients.

INTRODUCTION

Financial planning is a demanding career that calls for skilled professionals that can communicate effectively with a variety of clients. The path to become a prosperous financial planner is a difficult one with many moving elements. To differentiate themselves from the competition, many financial advisors go above the necessary educational requirements and earn certifications as chartered financial analysts (CFAs) or certified financial planners (CFPs).

Positioning oneself in a cutthroat industry like financial advice is difficult, but there are strategies to succeed. It's important to expand your network, but doing so requires going outside of your own social circle and establishing close bonds with a range of people. Because they must possess this skill quite early in their professional lives, financial planners set themselves apart from other financial industry professionals.

Essential Traits of Financial Planners

A financial planner should possess these main qualities; honesty, competence, communication skills, knowledgeable, well trained and objectivity (Bae and Sandager, 1997). Zeka, Antoni, Goliath, & Lillah (2016) revealed that financial advisors had the necessary training and professional credentials in financial planning, the expertise to address their clients' financial needs, adequate communication skills that made them polite and accessible, and services that were reasonably priced and within their means. The desire to seek out a financial adviser will be influenced by enhancing the perception of financial advisers, building trust in them, and boosting perceptions of the advantages of employing their services. A suitable client planner relationship consists of (i) Client's engagement and sharing financial information ; (ii) financial planner adequately and properly listening to client's financial problems and goals; (iii) client able to learn and attain financial knowledge through financial counselling; (iv) financial planner properly and timely communicating and responding to the client and (v) client trusting their personal financial planner in their financial matters (Avila & Avila, 2021). To be a good

financial planner one must be a good listener, practice to empathise with the client; repeating their thought can prove to be a good gesture to show sympathy with their thoughts (**Hatfeld, 1993**). The study by **Grable, West, Leitz, Rehl, Moor, Hernandez and Bradley (2017)** provides suggestions to increase the financial knowledge of widowed clients, so that a sustained and long-term client-planner relationship can be maintained. Highly educated and elderly clients seemed to have the lowest level of trust in their brokers **Fusilier and Mueller (2004)**. Millennials and Generation X independent financial planners are preferable over certified financial planners. They also seek frequent & healthy communication with their financial planner and they seek counselling for risk management as well as retirement planning (**Luther, Coleman, Kelkar & Foudray, 2018**). **Winchester and Huston (2017)** use an integrative method, "combining economic theory with psychological constructs", to study the effects of trust on client-planner relationships. The study also analysed the impact of counselling cost on trust and overall client-planner relationship. The results indicated that trust, risk sharing and consumer satisfaction has positive association with overall value of client-planner relationship and in turn reduces the counselling cost. Individuals who require to avail the services of a personal financial planner the most least avails the services due to the barrier of paying fee for the advice and being unable to find a credible and trustworthy financial advisor (**Chatterjee & Zahirovic-Herbert, 2010**).

Thinking towards more psychological aspect the loyalty of financial advisor towards client increases investor's professional attachment towards financial planner (**Brown and Brown 2008**). **Rachel Goldman (2021)** basically suggests three mediation methods a personal financial planner can opt with their clients, (i) active listening; (ii) asking open-ended questions to their clients and (iii) reframing. The researcher suggests that the more a personal financial planner actively listens to their clients the more they develop their communication skills as a natural trait. Furthermore, more open-ended questions asked from a client can help in deep conversations which enables in development of trust as well. **Reiter, Seay and Loving (2022)** indicated that individuals tend to trust a female financial planner more than a male financial planner. To be successful, financial planning professionals must possess both the "hard skills" of effective communication and the "soft skills" of "expert knowledge skills" in taxation, superannuation, estate planning, and other relevant areas (**Brown, Collins & Duguid 1989; Ioannides 1994; Casperson 2000; Taylor 2000; Korn 2005; Cline 2005; Goetz, Tombs & Hampton 2005**).

Trust

There is a greater chance that someone will use the services offered by a financial planner if they believe that they can be trusted (**Christiansen & DeVaney, 1998; Joiner, Leveson & Langfield-Smith, 2002; Sharpe, Anderson, White, Galvan & Siesta, 2007**). Using simple and less technical language for explaining financial products and financial plan builds trust (**Joiner, Leveson, and Langfield-Smith 2002**). **Harris (2017)** obtained through his research that for women clients widowhood brings various financial problems. Being stuck in such financial crisis, the dilemma and distrust often make them switch their financial planner frequently. People are hesitant to trust financial advisors with their money as a result of their image and stereotypes (**Rowland, 2007**). **Hopkins (2021)** found that financial planning is one of the least trustworthy professions, they are often misunderstood as a salesperson of products, frauds and professionals who just sell expensive products. According to research, customer loyalty must be earned, thus professionals must be able to meet, greet, and establish a professional relationship with their clients in order to show them how valuable they are to the company (**Richards 2002**). To establish a fruitful commercial relationship, they must make their clients feel at ease and acquire the required social skills (**Taylor 2000**). To build trust in financial planning, such interpersonal skills are crucial (**Casperson 2000**). According to **Bowen (2006)**, developing trust is a crucial factor to take into account during financial planning.

Cull and Sloan (2016) analysed the data using qualitative and quantitative techniques and concluded that trust is an essential characteristic in a client-planner relationship. They also indicated some characteristics which can build trust in a client-planner relationship like increase in legislations, technical competencies and behavioural aspects. Furthermore, this study suggests seven primary skills and factors that are essential to maintain and build trust in a client-planner relationship like risk and vulnerability, competence, best interest, feeling, faith, honesty and accountability. Increase in legislation and competency of financial advisor are attributes having positive association with building trust in financial planner's advice. They study also supports introducing legislation to ban commission and enhance transparent fee structure for financial planner in order to increase opinion of honest which leads to increased trust in a financial planner. Because the effects of financial goods offered at the point of sale cannot be immediately apparent, building trust is crucial (**Teale, 2015**). These communication skills encompass a range of abilities, such as the ability to empathize with the customer, to listen carefully, to accurately explain fees and charges, to be truthful regarding risks and returns, and to educate the client so that they may make well-informed choices (**Sharma & Patterson, 1999**). Advisors must act in a way that makes it evident that their clients' needs come first so as to attain the trust of their clients. (**Murphy and Yetmar, 2010**).

COMMUNICATION

Some researchers have perceived that communication skills and interpersonal skills are essential for building client's trust and commitment towards their service with those clients who have been availing their service for long and has a very satisfactory and balanced client-planner relationship (**Sharpe, Anderson, White, Galvan, and Siesta 2007; Carpenter 2012**). Many previous studies have reported that effectual communication skills are essentially build client's trust in financial planner (**Christiansen and DeVaney, 1998; Sharma and Patterson 1999; Kirchmayer and Patterson, 2003; Sharpe, Anderson, White, Galvan, and Siesta, 2007**). **Teale (2015)** believed that a personal financial planner should maintain an ethical and long-term client planner relationship with aged clients through good communication. Since the results of financial advice given by a financial planner are not visible through many years, building a foundation of trust with your client is very important, this will require high degree of communication skills to maintain this client-planner relationship. Because of the long-term nature of the connection, there will be a lot of interaction between the customer and financial adviser; as a result, the financial adviser needs to have strong communication skills to keep the relationship going. Advisors must connect with clients while learning about financial planning. Financial planners must possess in-depth understanding of a variety of financial concepts and be good at communicating (**Rossetto & Murphy, 2010**). The professional must be able to connect with clients in a way that makes them feel comfortable entrusting them about their financial future so as to be a valuable contributor to a financial planning organisation (**Bowen 2006; Goetz, Tombs & Hampton 2005; Richards 2002**). Financial planning clients who have ended past client-financial planner relationships often do so for a variety of reasons, such as poor communication, lack of interest, poor portfolio performance, a failure to comprehend the client's goals, and expensive fees (**O'Connell, 2013**). **Christiansen and DeVaney (1998)** discovered that over half of the financial planning clients they polled had previously worked with a different planner. They explained that communication is the key to maintain a healthy client-planner relationship. Being truthful in communicating the true aspects of investments builds trust of client, using financial jargon and other difficult terminology related to financial products, markets and investments confuses the client whereas, using simple and less technical language for explaining financial products and financial plan builds trust (**Joiner, Leveson, and Langfield-Smith 2002**). The communication skills required by a financial planner comprises of being client oriented, listening skills, clarity about remuneration, honesty regarding risk involved and attainable returns and educating the client about financial products & market jargon (**Sharma & Patterson, 1999**).

A variety of different vocations, such as engineering (**Graham 1999**), medical training (**Cooper & Hassell 2002; Clapper 2010**), computer technology (**Haywood & Madden 2000**), tourism (**Richards 2000**), and information systems (**Chen, Muthitachareon & Frolick 2003**), all require the incorporation of communication skills and financial planners as well (**Korn 2005; Ioannides 1994**).

Potential Clients

Without customers, a firm cannot exist, thus financial advisors must all be masters of the art of attracting new customers and retaining existing ones. The first and most challenging task in the financial services industry, according to seasoned professionals, is to develop a clientele book (**Kuepper, 2022**).

As the number and complexity of investments rises, more individuals look for financial advisory services to manage their money (**Rattiner, 2010**). Several financial planners target a certain niche of clients, which might include individuals like you: young, well-off professionals just starting to accumulate long-term assets (**Kuepper, 2022**).

Individuals aspiring to be professional financial planners want what is best for their clients, as a result these forward-looking planners have migrated to a comprehensive needs approach to help their clients achieve financial objectives, with a main goal of retaining long-term clients and not just selling products (**Rattiner, 2010**). The personal finance profession has historically concentrated on identifying people and households as possible consumers who require and can afford financial services, which has led to businesses advertising to high-net-worth clients. However, this tactic is being scrutinised (**Fulk, Watkins and Grable, 2018**).

The issue is that prospective successors to wealth demand a diverse service experience than their parents or grandparents did, according to **Skinner (2015)**, who observed that financial planners appear ill-prepared to interact with the children and grandchildren of their existing clients. It is well known that younger people are more likely to employ robo-adviser services. According to preliminary studies on robo-advisers, younger consumers who have confidence in online platforms are more likely to be the major adopters (**Cutler 2015; Pisani 2016**).

According to **Grable and Goetz (2017) and Sharpe, Anderson, White, Galvan, and Siesta (2007)**, a financial planner can decrease the likelihood of losing a customer by cultivating deep connections with them. In a culture that is becoming more and more digital, young financial advisors shouldn't undervalue the value of relationships (**Kuepper, 2022**). In order to provide better value over the long term, financial advisors differentiate themselves by developing a personal connection with their clients. The humanitarian drive to see their clients become financially informed and prepared for future helps and advisor to enjoy and bloom in their profession (**Rattiner, 2010**).

To expand their networks and build their referral bases, new financial planners should look outside of their immediate social circle. While social media marketing can help with this, building human connections is typically a better strategy (**Bloomenthal, 2022**). Narrowing focus, defining ideal clients, developing content marketing campaigns and getting social are some prospecting ideas for blooming financial advisors to target their potential clientele (**Hicks, 2022**). Potential clients can be targeted through mailing lists, local organisations, link up with other financial professionals, events, developing a digital presence and being active in professional communities (**Curtis, 2022**). New financial planners must have a business plan to guide them on starting a business, which must include all the important infrastructure decisions that need to be in place before taking on the first clients (as out focused by traditional financial advisors (**Rattiner, 2010**)).

RESEARCH OBJECTIVES

The above literature emphasises the significance of trust and good communication to develop a good client-planner relationship. Various qualities sought in an advisor have been pointed out through relevant literature, some perceivable steps have also been discussed which may aid in making more as an advisor. Together, they offer the justification for this study to (i) presenting data through a visual technique; (ii) learn more about perspectives of financial advisors regarding challenges faced as advisors in India, answering the subsequent empirical research questions:

- What are the major challenges faced by financial planners in India?
- What are the major recommendations for other financial advisors to better serve their clients?
- How can an advisor build more trust in a client-planner relationship?
- How can advisors develop their communication skills in a way to increase business?
- How do you suggest planners can reach and attain more potential clients?

The methodology for interviewing financial advisors is described in the remaining sections of this paper, along with how word clouds were created using the qualitative data gathered. The important findings and debate follow this. The final section offers suggestions as well as a general assessment that takes the significance of the findings into account.

Data Collection and Method of Analysis

The researcher has collected and analysed non-numerical data using personal interviews to understand concepts, opinions, or experiences of respondents keeping in view the primary objective of raise recommendations as to how to increase business as financial planners and better serve their clients. The research aims to gather in-depth insight into challenges faced and propose useful and practical recommendations.

Financial Advisors Interview

Semi-structured financial planners interviews were performed to gain further comprehension about the challenges faced by financial advisors and to raise recommendations for other financial planners. As the part of study 14 personal financial advisors were personally interviewed. It is challenging to put a number on the sample size for qualitative research (**Struwig and Stead, 2013**). As a result, qualitative interviews ought to be undertaken up until saturation (**Eriksson and Kolvainen, 2016**). In order to avoid data saturation, interviews must be conducted until little to no new information is revealed (**Marshall, Cardon, Poddar and Fontenot, 2013**). At 14 interviews, the data saturation point for this investigation was reached. According to the recommendations provided by **Guest, Bunce, and Johnson (2006)**, data saturation can be achieved at around 12 interviews. This quantity is in linewith their recommendations. The financial planners were approached through a formal mail for an in-depth interview to which they responded positively. 2 advisors were interviewed personally and other 12 were interviewed using online platforms (Google Meet and Zoom Cloud Meetings).

METHOD OF ANALYSIS

All the interviews were transcribed. The transcriptions then were subsequently examined by the researcher in accordance with codes created for a directed content analysis, as per **Hsieh and Shannon (2005)**. According to **Quinlan, Zikmund, Babin, Carr, and Griffin (2015)**, who emphasise the use of content analysis to identify underlying meanings and is suited when analysing vast volumes of open-ended data that are produced from interviews, content analysis was chosen as the most appropriate data analysis method (**Collis and Hussey, 2003**). The interview data were coded using both deductive and inductive coding procedures. In the beginning, the directed content analysis method was used, and theory-based coding categories were created before the study of data acquired from past literature (**Ravitch and Carl, 2016**).

Codes were generally produced deductively, although extra inductive codes were constructed if new discoveries that had not been previously reported in the literature surfaced (Catanzaro, 1988). A mix of axial coding was also used. 24 categories were created following the second and final coding cycle, with similar meaning being consolidated, e.g. develop trust, gain trust, build trust, establish trust were coded to create the one category trust. Summary tabulations were then created in Microsoft Excel using 11 categories to identify what are the main recommendations for financial advisors to build and grow as an advisor and 13 categories identifying the challenges faced by financial planners in India.

Word Cloud Creation

Word clouds were selected as an original way to present the coded categories so as to analyse the vast amount of qualitative data gathered from interviews. There are many free word cloud generators on the Internet, but one that permitted formatting of specific phrases was needed to make it possible to discriminate between positive and negative terms from the farmer transcripts. The word cloud generator Tagul (www.tagul.com) was chosen since it offered this functionality along with a number of other useful ones, including configuring word cloud shape, frequency of word repetition, font type, style, and word angle. With Tagul, one can import text into the visible box, chooses the formatting settings they want, and then clicks the "visualise" button. The user interface is straightforward and self-explanatory. Then, clouds can be exported as photos and saved. Because comparability required consistency across word clouds, the same font, style, and general shape were employed.

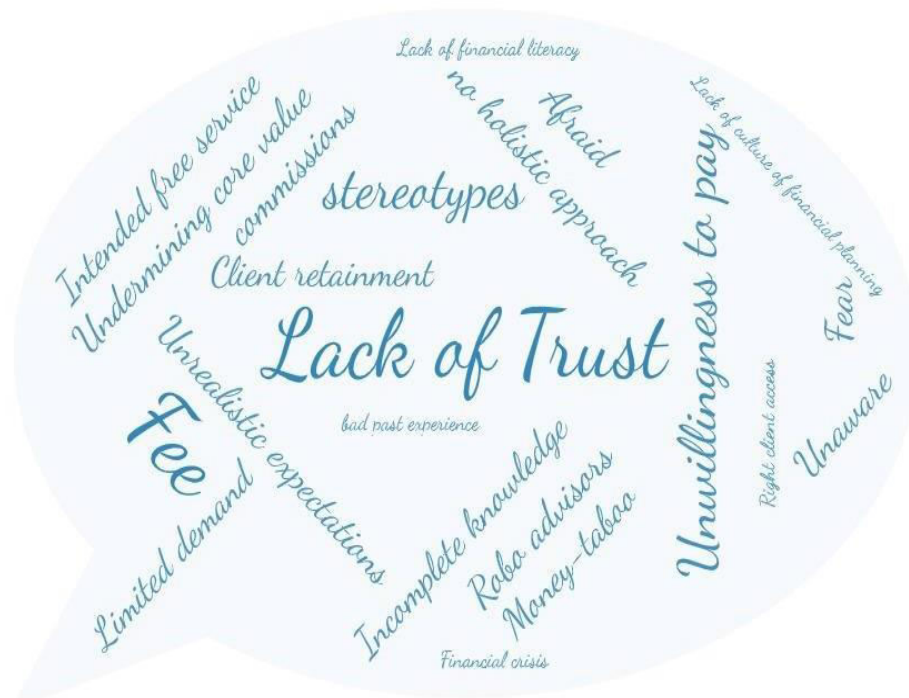


Figure 1: Represented word clouds of terminology used by financial planners as to challenges faced by them in India.



Figure 2: Represented word clouds of terminology used by financial planners as to Recommendations for new and existing financial planners.

RESULT AND DISCUSSION

Challenges Faced by Financial Planner

- **Demand Side**

The financial planners divided the challenges faced by advisors in India in two broad sections i.e. the demand side and the supply side. The demand side contains some challenges and barriers like lack of trust, money-taboo, unwillingness to pay, half knowledge, not realising the worth of financial advisors, unaware about the services rendered by them, lack of culture of financial planning, low levels of financial literacy, unrealistic expectations and no holistic approach towards financial planning. So basically, people lack trust in financial planners. They are afraid of sharing information related to money. So, fear is the biggest challenge here. People have very less faith on financial advisors and tend to become emotional when it comes to money.

Furthermore, Money taboo is a real thing, people are generally not comfortable talking about their income or savings. They are afraid be open about their financial credentials, moreover, in India income and savings are kept a secret and not willingly shared with anyone. One more major challenge is the unwillingness to pay for the services of a financial planner, they do not understand the core value of a financial advisor. And so are not willing to pay for the services of a financial planner, in fact, people with low or substantial level of income intend to have free advice thinking that only an advice is not worth paying for.

They believe they can handle their own money without taking any help from a professional and consider that online resources are also reliable being free. To add on even if they take financial advice they do not comply with recommendations as suggested. Some financial planners also expressed that client having half information or wrong information are a big challenge. First, they gain incomplete information from sources like google, other applications, etc. and then doubt the competence of a financial advisor. Basically, People do not realise the worth of taking financial planning services. In fact, they are unaware about such planning services, and are confused about the kind of planning services given by an advisor, basically, they confuse financial planning with only investment planning and do not have a holistic approach. Foremost reason can be lack of culture of financial planning in India, here, people do not consider financial planning important. They do not consider financial planning essential. Even if they

avail the services of a financial advisor, they do not get involved in the process of financial planning themselves. The level of financial literacy is low in India, so the core worth of financial planning and an advisor is not realised at par. Moreover, people intend to have huge returns in short run, so, these Unrealistic expectations of client is a challenge for financial advisor because their competence skills are at stake.

- **Supply Side**

Now discussing about supply side it was observed that regulatory challenges exist, a financial advisor has to be licenced from all the following regulators i.e. Reserve Bank of India (RBI), Pension Fund Regulatory and Development Authority (PFRDA), Insurance Regulatory and Development Authority (IRDA) and Securities Exchange Board of India (SEBI) and adding on strict regulations on financial planners affect business environment. Some advisors insighted that tarnished image of advisors is a major challenge, at times people even stereotype financial advisors as sales person. This may be due a bad past experience with some other financial advisor. Also, there is a limited demand of financial advisors, this challenge is an effect of lack of financial planning culture in India. Further, retaining a client is a problem, its competitive to retain clients mostly in equity products but once you build trust and they realise the importance of a financial advisor, it gives rise to a long-term client planner relationship. Moreover, people do not trust financial advisors and thus it is very difficult to access right kind of clients. A personalised plan has to be created for each client, which required good experience to understand the market and empathise with situation of clients as well. Whereas, some financial planner lacks communication skills and persuasion skills to maintain a good client planner relationship, because financial planning is more about managing people than managing money. Planners also face challenge in keeping themselves updated about market and products.

A forthcoming challenge are 'Robo-advisors'. The financial applications which provide financial advisory services with low cost or no cost at all are a challenge for personal financial planners, because people only consider the fee charged as a basis for selection of financial advisors and do not compare the quality of advice and level of personalisation put in a plan. Therefore, many online resources and programmes available on internet are a problem for financial advisors.

Recommendations for Financial Planners

Building trust in client-planner relationship is the first and foremost step. Always make sure that client has confidence and faith in the planner. They should have faith that their financial credentials are in safe hands. An advisor should mainly work on their skills. Improve your skills like Behavioural, Communication, Personal, Technical and Persuasive skills. Skills and experience develop competence. So, gain good dynamic experience to be more competent because happy clients bring referrals. Keep your knowledge about products, market, etc. updated. The foremost recommendation is to be customer centric and focus on financial planning rather than the products and always give an unbiased opinion.

Increasing their level of personal engagement in their profession is one of the finest strategies for advisers to attract new customers. Community involvement simply requires time, as opposed to standard marketing strategies that demand money. An inexpensive strategy to emphasise the value of financial planning and establish oneself as a financial expert is to host a webinar on financial literacy. Another effective instrument for professional development is social media. Given that wealthy clients frequently know other wealthy individuals, having a significant presence on social media can help one establish their brand and interact with a wide network of possible clients.

Advisors should concentrate on the responsibilities that are crucial for attaining clients' goals, providing value to clients, and fostering client relationships. Advisors can better align with clients' interests and concentrate their time and efforts on the crucial duties to carry out those plans by translating an understanding of the client's specific situation, goals, and objectives into an accepted comprehensive plan. They must feel at ease discussing their individual financial situation and ambitions with you. Whether those clients are young professionals just beginning to accumulate wealth, elderly couples preparing for retirement, or heirs to a sizable fortune, good financial planners have clientele which are appropriate for their experience and expertise. Also identify that which kind of market interests you and work accordingly.

Financial planners typically have a niche. They might be especially skilled at managing the personal finances of women, former service members, the very rich, or educators. One should think about the type of clientele they want to draw in and keep as a financial advisor. Furthermore, a financial planner should choose their clients wisely and make standards on what type of clients do you prefer to work with. Also accept client's churn-out ratio because some clients will always leave. No matter how good service you provide some clients may still leave due to various reasons. As seen by the challenges that people don't understand the worth of a financial advisor so it's important to show your core value as a financial planner. It's very important to make them understand your worth as a financial planner. They must understand that every advice is worthy of being accepted.

Trust Building

The biggest challenge faced by planners as well as clients is 'trust'. A planner's advice should give good returns in long term. One should feel that your advice is useful and helpful for the client. Furthermore, financial planner should build a good reputation and a right social profile as an advisor. A planner should maintain good continuous communication and always be available for them in emergency. If a client faces any emergency and an advisor is there to support, the client will have more reliability on him/her. An advisor should not bring his personal motives and interests in between the interests of clients and give an advice which he/she himself/herself feels useful. Planner should empathise with their goals and maintain a balanced client-planner relationship, work on the client planner relationship and this would help planners build trust.

Customers are more inclined to trust a professional who follows through on their commitments, always acts in their best interests, and makes choices that let them rest easy at night. It's polite to respond to client emails and phone calls promptly. Trust-building takes some initial time commitment. But if it increases customer retention and referral rates, advisors can earn significant returns on their investment. By consistently delivering on what has been promised and provided, one must earn the privilege and competence to work with their client.

An advisor should commit their heart and soul to their profession and clients. A planner should have good discussions with clients and make them understand their role. The involvement of clients is equally necessary so make them understand their role as well. Before giving any suggestion or advice to a client first self-try the recommendations and planning suggestions on oneself or family so that an advisor has confidence in his/her plan, as said practice what you preach.

DEVELOPING COMMUNICATION

Advisors must listen more often than they speak in order to communicate effectively. Effective listeners may better understand their clients' goals and concerns, and they can create planning and investment strategies that are suited to each client's particular needs, so actively listen to your clients. When clients see that you are aware of their requirements and objectives, they will start to care about what you know. When this happens, real communication starts. Financial planner should empathise with their client and develop good soft skills (communication skills, behavioural skills, persuasive skills, social skills, speaking skills).

Try to use less technical language in order to make client more involved in conversation, less scared and be more open about their financial situation. Financial jargon can scare off a client. An important aspect of client planner communication is to make the client start talking about their goals, objectives, expectations; in order to sooth the process ask open-ended questions and involve in deep conversations.

It is highly recommended that financial planners should take initiatives to educate people and spread financial literacy. They can organise workshops and sessions to make them understand the importance of financial planning and financial planner, only then a culture of financial management and planning can be developed in India.

Potential Clients

To expand their networks and build stronger referral networks, new financial advisers should look outside of their immediate social circle. While social media marketing may be used to do this, cultivating interpersonal ties is usually a better approach. While seniors and those who are close to retiring are a clear clientele, financial planners must also look to demographic groups who are relatively underserved to attract customers. While the majority of advisors work with wealthy retirees, some may also concentrate on the neglected young professional market. To remain competitive, look outside the demographic of soon-to-retirees as clients and identify underserved areas.

As a method to feel a connection and meet potential customers, get engaged in your professional groups by volunteering and participating in other activities. Although traditional sales methods like door-to-door canvassing and cold phoning can clinch deals, they do so considerably more slowly. Never undervalue the importance of paid advertising. One of the most affordable methods of reaching potential customers is through digital advertising, as well as the advertisements can indeed be tailored with ever-improving precision. Even visitors who have previously viewed your website can be targeted, providing a relatively easy approach to re-engage interested individuals.

Additionally, advisers can meet other like-minded people by volunteering for causes that are important to them and who they hope will someday be professional clientele. Similar to how people select a doctor or a lawyer, people select financial planner. They might start by requesting referrals from family and friends. They could then examine credentials. Then, they might have meetings with a number of prospects before choosing one. At the initial meeting, it's crucial that one pays attention to the client and thoughtfully discuss the services they can offer.

Financial planners can also practice through Role-play technique, this may prove to be an effective technique to practice before actually approaching clients.

CONCLUSION

Financial planning is a competitive profession requiring focus, persistence and honesty. The competencies of an advisor should be their primary focus. Enhance your interpersonal, technical, persuasion, technical, and behavioural skills. Competence is developed via experience and skills. Gaining good, dynamic experience will make you more skilled because satisfied customers refer others. Update your understanding of items, the market, etc. The top piece of advice is to put the needs of the consumer first, concentrate on financial planning rather than the products, and always express an unbiased view.

People tend to get emotional when it comes to money and have very little faith in financial consultants. Money-taboo, unwillingness to pay for advice, incomplete knowledge of clients, underestimating the value of financial advisors, ignorance of the services they provide, a lack of a culture of financial planning, low levels of financial literacy, unreasonably high client expectations, and a lack of a holistic approach to financial planning are some of the challenges

that financial planners seem to face. In essence, individuals don't have much faith in financial planners. They are reluctant to divulge financial details. Therefore, the largest obstacle here is fear of being frauded by an advisor.

Communication is the key to building a good long-term clients-planner relationship. Because they must possess this skill quite early in their professional lives, financial planners set themselves apart from other financial industry professionals. Communication includes much of listening and less of talking, but this statement does not surpass the need of developing persuasive skills as well. Persuasion requires good soft skills and speaking skills, which are equally of use to a financial planner as being a good listener is. Increasing their level of personal involvement in their communities is one of the finest strategies for advisers to attract new customers. An inexpensive strategy to emphasise the value of financial planning and establish oneself as a financial expert is to host an online webinar on financial literacy. Another effective instrument for professional development is social media. Given that wealthy clients frequently know other wealthy individuals, having a significant presence on social media can help one establish their brand and interact with a wide network of possible investors.

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MAPPING EFFICACY OF HUMAN RESOURCE MANAGEMENT SYSTEM WITH HR ADIT IN IT SECTOR-A DESCRIPTIVE STUDY

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ABSTRACT

HR audit is necessary to assess the efficacy of an organization's human resources (HR) and the effectiveness of HR procedures, techniques, systems- i.e., recruitment, selection, employment, payments, appraisals, training, attendance and moral motivation of employees. To be adequate in the system, HR managers must evaluate the results of the planning and implementation of HR policies and procedures using HR audits. An HR audit must be advanced enough to assess the strengths and weaknesses of a company's HR systems. With HR audits, organizations can identify gaps, areas for improvement, key activities and also assess the position and contribution of HR activities to the overall strategic planning of the organization & help the organization to formulate appropriate HR strategies that fit well with the overall HRM system. The purpose of HR Audit is to ensure the efficiency of its HRM system's activities with HR Audit. This paper aims to map the importance of human resource audit in today's working environment as a factor in maximizing the efficacy of HRM Systems of IT Sector to keep pace with rapidly changing HR systems.

Keywords: HR Audit; Efficacy: HRM systems, Employees, Managers, IT Sector

1. INTRODUCTION

The term HR Auditing emerged from the practice of mandatory annual financial and accounting audits for every organization. This audit is a review of policies and systems to identify problems and ensure that the organization has sound accounting policies and practices. Similarly, an HR audit serves as a tool for an organization to map the state of its HR functions. It is a process that diagnoses, analyses and evaluates the systems, policies, practices and procedures of the HR audit is a strategic effort to review HR policies, procedures and practices, identify gaps and establish appropriate updated systems.

HR Audit is a way to achieve organizational sustainability because it is a strategic tool for Disruptive Organization. The main task of the HRA control system enables the implementation of specific measures that help to minimize HR turnover, effective on boarding and training, better working conditions, remuneration, benefits and advancement opportunities. HR Audit System is very useful to face the challenges and increase the potential of the employees in the organization. HR audit plays an important role in achieving HR management objectives. HR Audit focuses on improving HR functions. It provides an overview and assessment of current HR policies, systems and practices with the aim of recommending ways to improve them. Its value is in providing feedback to both HR manages and organizations about how well HR activities support the organization's overall strategy.

An important task of management work is to maintain power in operations. This also applies to the HR function. The job of the people in charge of HRA is to keep records of what happens with the HR, so that one can casually assess how effectively the personnel resources of the organization have actually been used. HR Audit can be conducted on past forecasting and time performance to show how far needs have been identified on time. If such a review shows that the forecast was inaccurate, management can begin to think about how to improve forecasting techniques and avoid variables.

2. HUMAN RESOURCE AUDIT: CONCEPTS AND CRITERIA:

• CONCEPTS

Human Resource Audit is competence sometimes performed in the personnel management system, which includes monitoring and collecting data, examining them and, based on this, examining the effectiveness of the organization using human resources. The main goal is to, improve employee performance and work performance.

Human Resources Audit (HRA) has been an important process for an organization. There are many concepts based upon different criteria. The process varies from one organization to another and despite the fact that certain concepts and criteria remain constant. This would provide a significant framework and manual for planning, execution and reporting an HR audit. A personnel audit is a comprehensive assessment of an organization's personnel performance, its structure, systems and operational methods, as well as the value provided to the organization. Auditing identifies the significant effectiveness (or lack thereof) of an organization's HR operations and measures compliance with ever-changing rules and regulations. A properly conducted inspection will reveal problems and provide recommendations for solving them.

HR audit is the standard for success and is not like a regular employee performance review. Its purpose is to measure the effectiveness of HR functions in terms of results, competence and positivity. HR audit is a comprehensive process that examines current HR policies, procedures, documentation and systems to identify needs for development and improvement of HR functions and assess compliance with ever-changing rules and regulations. From procedures and HR policies to HR practices, everything is examined during a compliance audit. HR audit is comprehensive and usually includes accounting, proper documentation of documents, employee compensation and benefits, performance evaluation and employee participation level are checked in operational audits among others. The HR review is based on the assumption that HR management has a lot to do with recruiting, hiring, retaining and firing employees. It explores the concept of "people management" by supervisors at all levels.

A Human Resources audit broadly includes the following;

- Governmental Agreement (Industrial Relations)
- Policy.
- Assurances and Reimbursement.
- Training and Staff Development.
- Employment.
- Employee Engagement.
- Performance Management.
- Performance appraisal system.
- Legal compliance

• CRITERIA

Certain inclusion and exclusion criteria may be followed. There are certain frameworks for exclusion criteria. Sometimes it is advisable to follow the COSO Framework to help ascertain the extent to which existing management controls and ensures that Performance Management is properly mitigated and monitored.

There have been standards for an internal or external auditing. The Institute of Internal Auditors' International Standards for the professional Practice can be used for an Internal

Auditing. Different organizations followed different standards even a government can have its own standards. Even audit can be done in the absence of any clear standards.

3. OBJECTIVES

The objectives of the present study could be—

- To study the co-relation between HR Audit & Employee
- To Analyze the impact of HR Audit on employee performance.
- To understand relation between HRM System & HRA.
- To find out the effectiveness of performance of HR Department.
- To study about the implementation of HR policies, procedures;
- To find out the reasons for low productivity and improves HRD Strategies;
- To Evaluate the HR staffs & employee;
- To modify and Review HR system & challenges
- And to seek answers to: What happened? Why did it happen? Why did it not happen?

4. SCOPE OF THE HR AUDIT

The scope of an audit may generally include the performance management process, which includes performance planning, monitoring and evaluation, and management oversight of the performance process. This may also include rewarding activity. The audit may include a review of the completed performance cycle, our audit work focused primarily on the performance management performed.

5. LITEARURE REVIEW

- Acharya, S., Nigam, R., & Dr. Mishra, S. (2020). Mapping human resource audit system in the Vuca world: An empirical study on perception of HR managers in Maharashtra. *International Journal of Scientific and Engineering Research (IJSR)*. ISSN -2319-7064,9(6),1133-1138 stated that Human resource management (HRM) has broadened with multiple responsibilities aligned with the output of the organization. The journey has taken them to the business partner's protagonist and connected them to each and every aspect of the functions of the business. This is possible as they are quick in their approach and quipped with available information about the functioning of various operations through innovative modern technologies. To be effective in the system managers need to evaluate the results engendered by the design and implementation of HR policies and procedures through HR Audit. It includes the analysis and evaluation of HR policies and their alignment with the company's strategy and human resource characteristics. It is imperative that an HR audit is advanced enough to assess the strengths and weaknesses of a company's HR system. He must also be able to suggest improvements in areas of concern in the HR system. Since HR managers are the key stakeholders of HR systems and HR evaluation results, researchers tried to understand HR managers perceptions of the development of the HR function. Human resource accounting (HRA) to adapt to the rapid development of the human resource system.
- Dr. Sharma, K. K. (2015). Human resources audit: Concepts and criteria. *Indian Journal of Management & Economics*, ISSN:2249 393X, 5; Issue 1, 201 5. DOI 10.5281/zenodo.2653278 studied that Human Resources Auditing (HRU) is an important process for an organization. There are many concepts based on different criteria. This process varies between organizations and despite the fact that certain concepts and criteria remain constant. Therefore, this particular article will help students, managers and human resource management (HRM) professionals to plan and perform an HR audit appropriately. This will

provide an important framework and handbook for planning, conducting and reporting on a personnel assessment. Different levels of HR audit have also been described.

Aim: to determine the efficacy of policies and procedures addressing the activities of an organization, whether they are properly developed, documented and distributed to evaluate the adequacy of the policies and procedures and are they clearly articulated and communicated & to judge the output, successes, failures, of weaknesses and ultimately suggesting possible remedies.

Research Methodology: An HR audit can be either internal or external though any dedicated agencies. Many organizations.

Summary: An HR Audit is required to assess the efficacy of an organization's human resource (HR) status, HR Management (HRM) policies and practices

- Sharma, D., & Patil, Y. V. HR Audit Methodology, Shodhsamhita, ISSN 2277-7067-Volume—VIII, Issue 2(II), 2021-2022 concluded that the chronological role of human resources has changed profoundly since its inception in early 2000. What started as a primary office function is now a strategic collaborator in planning define and achieve the organization's policies and objectives. Today's day-to-day business environment places the responsibility on HR to accept the impending daily challenge of doing more with less while contributing to the achievement of business goals. Human resources must also focus on rapidly changing conditions affecting the type of employees required and their changing needs, so this function requires flexible and skilled practitioners to work. Strategic HR planning has become an essential part of doing business and HR professionals must be both experts in the field and competent business people. Personnel audit means a systematic audit of job analysis and design, recruitment and selection, referral and placement, preparation and development, performance review and career assessment, representation Formal representation and compensation, inspiration and morale, participatory governance, correspondence, social assistance and government management, thrift and welfare, machine relations, trade unionism and their question and determination. Personnel assessments are particularly useful in achieving hierarchical goals and are an important tool for checking the adequacy of an association's personnel elements.

Aim: To ensure effective utilization of human resources to analysis cost value to acquisition, development, allocation and maintenance of human resources to focus on the strategic development of human resources of the organization to achieve organizational goals & to learn systematic methodology to achieve appropriate audit outcomes.

Research Methodology: Data Sources: Primary Data: The Primary data was collected from Human Resource Management team and also Finance Manager. (The respondents by administering a structured questionnaire and also through observations, interviews & discussion) Secondary Data: Apart from various websites not limited, Journals from Library, Academic Reports, and Internet, used for this study. To identify the HR Audit Methodology Sampling: Sample Population: There are a total of more than 3000 companies in the Jalgaon region from which we have chosen 25 companies, besides their HR and Finance Managers in the Jalgaon region. Sample Size: Out of the total population, the sample taken among respondents from companies HR managers & finance department randomly is 50 Sampling Area. The research was conducted at MIDC, the area of the Jalgaon region. Sample Method: The research was made by the survey at the convenience of the Respondents. So, the sample type is convenience sampling. The HR Audit Methodology tools used for analysis Instrument: A structured Questionnaire is used and the type of Questionnaire, Interviews and Observations. The information of Audit methods was collected from the HR managers of various companies

and finance departments by visiting their company. The HR Audit Methodology Data Analysis Techniques: The data is analyzed with the “Simple analysis technique”.

Summary: A human Resource audit can be used as a measure to evaluate the personnel activities of an organization.

- S.K. Jha, Human Resource Audit: Optimization of Effectiveness and Efficiency of Human Resources, Paripex—Indian journal of research, ISSN-2250-1991, Volume:2 | Issue: 10 | Oct 2013. Suggested that Management must be aware of the important role of the human resource department in order to successfully direct the organization towards profitability. The different results of previous studies have paved the way for a better understanding of the concept of human resources in the health industry. This will enrich existing research with a unique perspective, thought and direction. The role of human resource management becomes even more important. The HR function can be assessed, leading to a critical review and evaluation of the workforce management program, including the state of the employment relationship between employer and employee. The goal of such an assessment is not only to note the weaknesses but also the strengths of the workforce management program. Indeed, the existence of such an audit shows the will of those responsible for the human resource management function to do better and improve their performance. Above all, it is necessary to keep in mind the evolution of social values and attitudes. Efforts must be made to optimize the effectiveness and efficiency of Human Resources!

Aim: To ascertain weaknesses but also the strengths of the manpower management programme & to create such conditions in the organization that the employees can put to best performance.

Research Methodology: Organizations are more dependent on HRM to increase the success rate in today's competitive global environment. The role of HR manager is shifting from that of a protector and careener to the role of a planner and change agent. Personnel directions are the new corporate heroes. The name of the game today is business is personnel.

Summary: Role of Human Resources Management is becoming all the more important. The personnel function can be audited resulting in a critical review and evaluation of the manpower management programme including the employer—employee industrial relations situation.

- Dr. S. Tephillah Vasantham (2020), Importance of HR Audit, International Journal of Management (IJM), ISSN Print: 0976-6502 and ISSN Online: 0976-6510, Volume 11, Issue 11, pp. 2515-2520. A human resource department is adequate, legal and effective. The results obtained from this assessment can help identify gaps in HR practices and HR can then prioritize these gaps with the goal of reducing lawsuits or regulatory breaches and achieving and maintain a world-class competitive edge in core HR practices areas. A human resources audit is an important way to avoid any legal and effective. The results obtained from this assessment can help identify gaps in HR practices and HR can then prioritize these gaps with the goal of reducing lawsuits or regulatory breaches and achieving and maintain a world-class competitive edge in core HR practices areas. A human resources audit is an important way to avoid any legal and regulatory liability that may arise from an organization's HR policies and practices. In addition to identifying regulatory risks areas, assessments are often designed to provide a company with insight into the competitiveness of its HR strategies by looking at best practices from other employers in the company's industry. Essentially, HR assessment is about identifying problems and finding solutions to problems before they spiral out of control. This is an opportunity to evaluate what an organization does well and how things could be done differently, more efficiently, or at a lower cost. HR evaluation involves dedicating time and resources to gain an objective insight into the organization, establish best practices and identify opportunities for improvement. An objective assessment of an employer's current status can help HR assess whether specific areas of practices are

adequate, legal and effective. The results can provide decision makers with the information they need to decide which areas need improvement. The changing nature of human resource management requires human resources professionals to fully engage and contribute to their organizations as true strategic business partners. See *Practicing Strategic Human Resources*. An audit helps an organization understand whether its HR practices help, hinder or have little impact on its business goals. The audit also helps quantify the results of the department's initiatives and provides a road map for necessary changes. Audits can also help the organization achieve and maintain world class HR practices. See *HR Can Play Influential Role in Helping Boards Manage Risk and Be a Ringmaster of Risk*.

Aim: To help guide the audit team in scrutinizing all critical areas of an organization's HR practices.

Research Methodology: The changing nature of HR management demands that HR professionals participate and contribute fully to their organizations as true strategic business partners. See *Practicing Strategic Human Resources*. Audits can also help the organization achieve maintain world-class HR practices.

Summary: Initiating and identifying an appropriate course of action from the personnel review is just as important as having a course of action in place from the outset. Inappropriate audits can yield misleading results, leading to ineffective management decisions. Therefore, you must have a clear understanding of these audits.

- Dr. T Uma Devi, Is HR Audit a diagnostic tool for improvement? ---A Study, International Journal of Research in Applied Management, Science & Technology, ISSN 2455-7331—Vol II- Issue II, www.zenonpub.com. The wide spread of human resource management is a set of measures designed inter disciplinary regarding recruitment, selection, employment, ergonomics, organization of labor, material and moral stimulation of employees. Focus of this paper is to analyze what way HR audit considered a diagnostic tool for identifying positive aspects and organizational deficiencies and providing recommendations for improvement. This paper aims highlighting the importance of human resource auditing in today's working environment as a factor in maximizing the efficiency of activities performed by employees of an enterprise.

6. Significance of Human Resource Audit in it Sector:

The changing nature of people management requires HR professionals to fully participate and contribute to their organizations as true strategic business partners. An audit helps an organization understand whether its HR activities are helping, hindering or having little impact on business objectives. The audit also helps quantify the results of the department's initiatives and provides a road map for necessary changes. Audits can also help an organization achieve and maintain world-class HR practices.

Human resource audit is a process in which various aspects of the intellectual capital management of the organization are systematically checked. In IT companies, the role of intellectual capital is very large due to the service quality of the expectations of external customers and sensitive institutional customers. In addition, project costs are high and irreversible in software projects. The product designed by the company should be able to satisfy many customers in the world in terms of simplicity, compatibility, change, scalability and flexibility of changing the operating system. Weaving them all into one product requires multiple skills, all supported by different teams. Collaboration, coordination, communication and supervision are the pillars on which the project progresses between scholars from different fields. All conflicts can cause operational and administrative problems. These problems stem from a lack of administrative aspects such as planning, organizing, staffing, directing and controlling.

Significance of HR Audit in IT Company:

- **Achieve Quality Assurance:** To gain a measurable increase in data quality
- **Increase Data Security:** Examine data directly in a productive system, without the need to export sensitive personnel data from the system.
- **Improve Data Reliability:** Evaluate inconsistencies and check descriptions of organizational objects.
- **Maintain Flexibility:** Be independent of different payroll periods in the company with an audit plan that defines a test period and presents the results in the dashboard.
- **Create Exception Rules:** Exception rules are provided as standard and are configurable for individual business requirements—removing the responsibility from IT.
- **Ease Analysis:** Manage a high-level overview of the exceptions for a particular data collection and further analyze the data (e.g. exceptions by pay period or type).
- **Centralize the Workbench:** Move toward a single, centralized, proactive, HR/Payroll exception reporting and resolution workbench.
- **Gain Transparency:** Undertake receipts checking and examination, verify travel information and implement exception rules for validating cost categories and so on.

In this way, HR Audit helps quantify the results of the department's initiatives and provides a roadmap for necessary changes. Audits also can help the organization achieve and maintain world-class HR practices. It helps to explore how to better serve the needs. It helps to streamline the work process and to measure continuous improvement by asking whether things have gotten better or not.

HR practices and operations have a far-reaching impact on employee morale and performance, which in turn affects the performance of the entire organization. Therefore, they are said to be closely related to the company's "balance sheet" through "productivity, people and processes" (Ulrich). Because of its criticality, regular evaluation of the HR function, or the financial function, becomes essential to maintain the health and growth of the organization. The need for such assessment increases in today's dynamic and sometimes turbulent environment where HR management needs constant modernization and reorientation. Furthermore, as the human contribution to the competitive advantage of organizations increases, especially in the knowledge-based economy, the HR function itself is changing. Little by little, the role of the website provider is moving to a real business partner.

- To effectively fulfil this, emerging role, HR must continually assess:
- Is it adding tangible value to the organization through its strategies, policies, processes and practices.
- Whether it's doing so at a competitive cost: and
- Whether it's doing so in a fashion that's satisfying to its people, acceptable to the society and the law, and sustainable from a long-term perspective.

Answers to any or all these questions need regular HR Audit.

Moreover, HR Audit becomes significantly critical in situations of Merger or Acquisition. Often Human Resource is not informed about such transactions till they're complete. However, most often if mergers or acquisition fail, it is because of the folk's related issues. Consequently, it is important that managements spend adequate time and energy to master concerning the human resource part of the target company.

7. MAPPING HRM SYSTEM WITH HUMAN RESOURC AUDIT IN IT SECTOR:

Human resources audit is a method used to evaluate the contribution of human resources management to the achievement of the current and future goals of the organization based on the price-quality ratio. In the current competitive situation, companies from various industries are trying to improve their know-how to survive in the market. To achieve their goals, they must respond to dynamic pressures such as technological changes and increasing competition, etc. Organizational performance can be improved only by improving employee performance, which is possible only through appropriate HR practices such as recruitment, training, rewards, conflicts, leadership and motivation. All of these are standard HR functions. All these ensure an effective HR policy and management system.

Annual/quarterly/needs assessment of HR functions of an organization is called HR audit. Auditing was routine work. In the case of human resources, however, there is no legally binding approval of the audit. However, some companies prefer to have HR audits. Like any audit, an HR audit can be systematic formal process that examines an organization's HR strategies, policies, procedures, documentation, structure, system and practices. Therefore, it is only a diagnostic tool that measures not only current state of affairs, but also the differences between the current state and the specified state in the monitored area. In addition, it systematically and scientifically evaluates the strengths, limitations and development needs of the existing human resource from the broader perspective of improving organizational performance. HR auditing is based on the assumption that HR processes are dynamic and be constantly redirected and revitalized to meet ever-changing needs. HR audits are not routine practices aimed at solving problems. Rather than solving problems directly, HR audits, like financial audits, help provide information about possible causes of current

An HR audit can either assess operational HR policies, practices and processes or staff knowledge and experience of the organization, in most cases an external consultant is needed to reduce bias and bias in the audit process. Common types of audits are: 1) compliance with applicable federal, state and local laws and regulation 2) evaluation of HR policies and practices 3) specific HR activities targeting HR system strengths and weaknesses such as payroll, training, documentation, benefits and bonuses.

An HR system usually requires analyzing human resources at three levels: strategic, functional and intermediate. At the strategic level, an HR audit is conducted from the perspective of the organization's strategy. It usually involved the practical integration of human resource management into strategic planning within the organization and the study of the relationship between the human resource department and other departments, in relation to shaping the utilization of human potential in the organization. This would require the study of the organization's strategy by interviewing personnel, the study of strategic plans, the systematization of external and internal factors of the company and the identification of the dynamics of change. Strategy research has a major impact on HR policy planning, motivational systems, labor relations and other aspects of the HR sector.

Competitiveness in the labor market is the ability of the organization to be chosen as a workplace, i.e., the sum of all the working conditions offered by the employer, which makes the difference between the organization and other representatives of the same field of activity. Personal satisfaction and stability can be considered as indicators. Second, the functional level requires monitoring the performance of the functional departments of the organization's HR system. For that, it was necessary to compare the achievements of the goal, costs and whether it is possible to cut costs. Finally, the middle level (management) requires a review of the accuracy of middle managers, especially how they implemented HR practices, the work environment and employee relations. We interview employees, manages, union workers, external social organizations, shareholders and other stakeholders Personnel review means job

analysis and planning, recruitment and selection, orientation and placement, training and development, performance appraisal and job evaluation, employee and management compensation, communication, welfare and social security, safety and health, labor relations, union activities and disputes and their resolution. HR audit is very useful in achieving the goals of an organization and is also an important tool to help evaluate the effectiveness of an organization's HR functions.

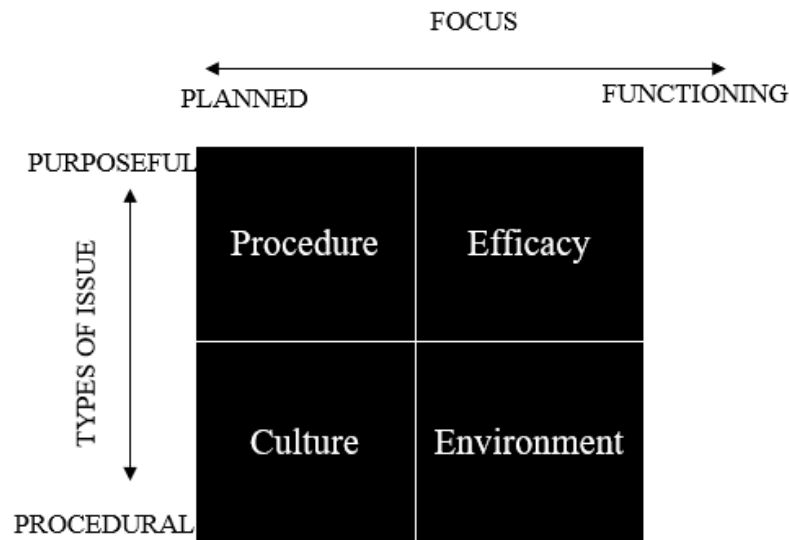


Figure-1.1 Mapping Hr System with Human Resource Audit in It Sector

In today's global competition, companies are increasingly focused on profits, productivity, employee turnover and HR practices. Most organizations pay a lot of attention to human resource management, which can be defined as the process of acquiring, training, developing, motivating and evaluating a sufficient number of qualified employees to perform the activities necessary to achieve the organizations climate that ensures maximum employee satisfaction and employee performance. However, there is an important relationship between good HR practices, reduced turnover of employees and increased employee productivity. Further, those practices enhance high profitability and high value of the firms nowadays. A high quality, highly motivated workforce is tough for competition to replicate. To gain improvements in organizational performance is an advantage and this is mainly succeeded through effective HR management.

- **PARAMETERS OF HR AUDIT:**

The following parameters are only indicative: --

Table-1.1 Parameters of HR Audit

The Functions of Human Resources Sub-system	The Content of Human Resources Audit
Formation of personnel policy in the organization	The assessment of the current situation of personnel policies, the degree of compliance to the development strategy of the firm; the evaluation of relationships among the personnel policy, the features of the organization and the internal conditions
Planning the human resources	The assessment of existing resources, targets and development prospects, future personnel request; analysis of planning plan and staff turnover planning analysis

Utilization of human resources	Degree of personnel occupation analysis; personnel stability analysis.
Recruitment and selection of human resources	Assessment of methods and procedures used in recruiting personnel; recruitment costs; recruitment efficiency in filling in the vacant positions; filling in possible positions in the future; efficiency of selection procedures.

8. CONCLUSION

The role of human resource management is becoming even more important. It is possible to review the personnel function, in which case the state of labor market relations between the employer and the employee of the labor management program is critically reviewed and evaluated. The purpose of such a review is not only to identify the weaknesses of the HRM program, but also to identify the strengths. In fact, the existence of such audits indicates the desire of those responsible for personnel management to do better and improve their performance. Above all, changing social values and attitudes must be considered. Efforts must be made to optimize efficiency and effectiveness of human resources!

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MAPPING OF ENCEPHALITIS LITERATURE: A SCIENTOMETRICS APPROACH USING BIBLIOMETRIX

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ABSTRACT

This study is motivated by the need to explore the structure of encephalitis research to ascertain the level of collaboration among research institutions, top most countries, authors, sources, most frequent words in publications on encephalitis techniques. The data was retrieved and extracted from PubMed database with no restrictions. Bibliometrix software was used to computation and visualization to extract bibliographic information and perform a descriptive analysis.

Keywords: Mapping, Scientometrics, PubMed, Bibliometrix

1) INTRODUCTION

Encephalitis is an infectious or inflammatory disorder of the brain that presents with fever, headache and an altered level of consciousness there may also be focal or multifocal neurologic deficits, and focal or generalized seizure activity. (1) Encephalitis is uncommon but is a neurological emergency which must be considered in a patient presenting with altered consciousness. Encephalitis is a diffuse inflammatory process of the brain parenchyma associated with evidence of brain dysfunction. The presentation of encephalitis can be acute or chronic. The etiology of encephalitis can be broadly divided into two major subtypes. Infection related encephalitis which is a direct consequence of pathologic viral, bacterial or parasitic agents. Herpes simplex virus (HSV) and varicella-zoster virus are most common cause of acute infectious encephalitis. (2)

Scientometrics a branch of science which analyses scientific publications in a particular discipline to explore the evolution, growth and pattern of development through quantitative measures of scientific information, like the number of papers published in a chosen period of time and their citation impact. In any discipline the researchers and research institutions are being evaluated based on their publications in peer reviewed journals. This involves measuring research output and its intellectual influence on the research community through measurement of publication's productive impact. Scientometrics research contributes to the identifications of scattering and growth of literature, author productivity and distribution of scientific literature by country, by institute, by language etc., which helps to monitor the growth and trends in research. (3)

PubMed Database is a free resource supporting the search and retrieval of biomedical and life sciences literature with the aim of improving health—both globally and personally. The PubMed database contains more than 34 million citations and abstracts of biomedical literature. It does not include full text journal articles; however, links to the full text are often present when available from other sources, such as the publisher's website or PubMed Central (PMC). (4)

2) REVIEW OF LITERATURE

Ritu Gupta, Gupta, B.M., and Mueen, M. (2014) the study reveals on limbic encephalitis publication during the period 2004-2013. They retrieved total 901 records by the help of Scopus database. Maximum publications 154 were in the year 2013 and minimum publications with 43 were in the year 2004. The annual growth rate of 17.27% and average citation impact per paper of 5.76%. the largest publication share (91.56%) in limbic encephalitis.

Wu, Haiyang, et.al(2021) this study focus on mapping knowledge structure and research frontiers of ultrasound- induced blood- brain barrier opening: a scientometrics study. the aim of this study was to summarize the knowledge structure. Web of science database was used for retrieving the date and data has analyzed by VOS viewer and citeSpace software. A total 1201records were included in the final analysis. The study providing comprehensive overview, development landscape and future opportunities of this technology.

Ritu Gupta and Gupta B.M(2016) this article on “Japanese encephalitis”. Total 2496 publications retrieved from scopus database during 2003-2012, an average annual growth rate of (7.41%) and citation impact per paper of (5.26%). Global publication share 88.90% during 2003-2012. The largest publication share (65.06%) of output on Japanese Encephalitis came from medicine.

Rathika, N and Thanuskodi (2020): this study was evaluate the publications in encephalitis journal during 2008-2017. The data were retrieved from the Web of Science database. analyzed using tools like HisCite and Microsoft Excel. The study explained about relative growth rate, exponential growth rate, doubling time, degree of collaboration etc...focus on some of the journal such as document type, year wise distribution.

3. OBJECTIVES

The purpose of this study is to analyze and evaluate the literature on the Encephalitis Literature on mapping of scientometrics indicators as a way to understand the status of research in the subject. The data for the study sourced from the PubMed database covering from 1967 to 2022. The study attempt a series of metrics such as 1) Most relevant source.2) Most relevant Authors 3) Most relevant Affiliations 4) Country productivity 5) Most frequent words

4. METHODOLOGY

In this study analyze the research output in the field of “Encephalitis” during the study period 1967 to 2022. The PubMed database was used for retrieve the data. A total 67078 records are downloaded. The data analyzed by the help of Rstudio and Bibilometrix software.

5. RESULTS

The data was extracted from PubMed database. It includes all publications of the document types such as article, letter, case reports, and so on, published between 1967 to 2022. The number of documents in the data set is 65939. While the sources is 4674. The single authored documents have 5082. While the multi-authored documents have are 151273. This shows that author prefer multi-author in encephalitis to be published as single authored. Table -1 and Fig-1 shows the main information about the data.

Table-1 Main Information about data.

MAIN INFORMATION ABOUT DATA	
Timespan	1967:2022
Sources (Journals, Books, etc)	4674
Documents	65939
Authors	156355
Authors of single-authored docs	5082
Authors of multi- authored documents	151273

Fig-1 Main Information about Data



Figure 2 presents the most relevant top ten sources in Encephalitis literature. Journal of virology (1084)ranked first among all sources followed by Neurology(903), The american journal of tropical medicine and hygiene, Voprosy virusologii(689).

Figure 2: Most Relevant Sources

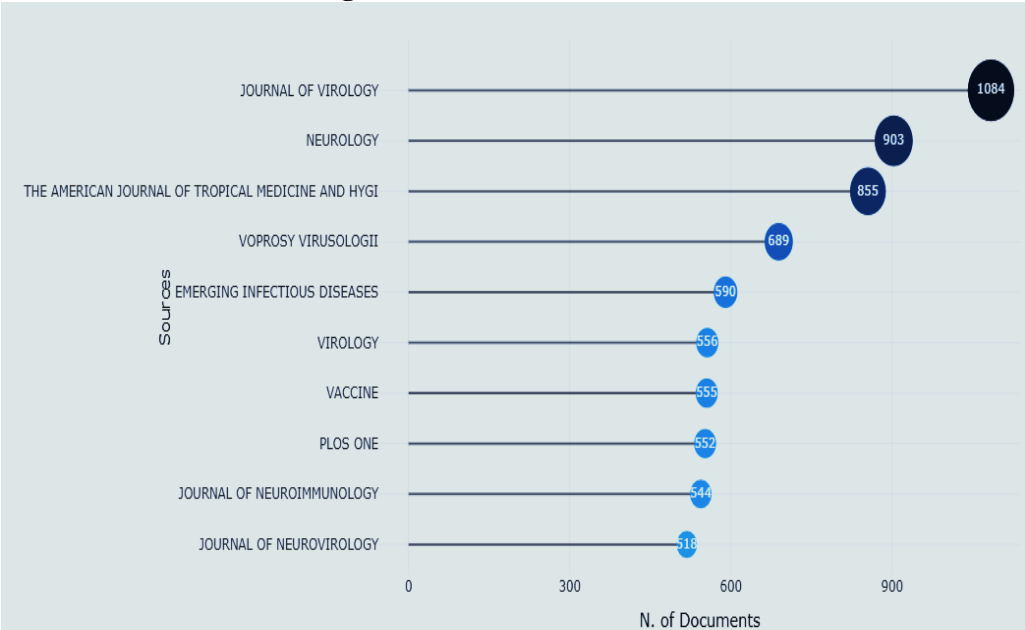


Figure-3 Most Top Ten Authors

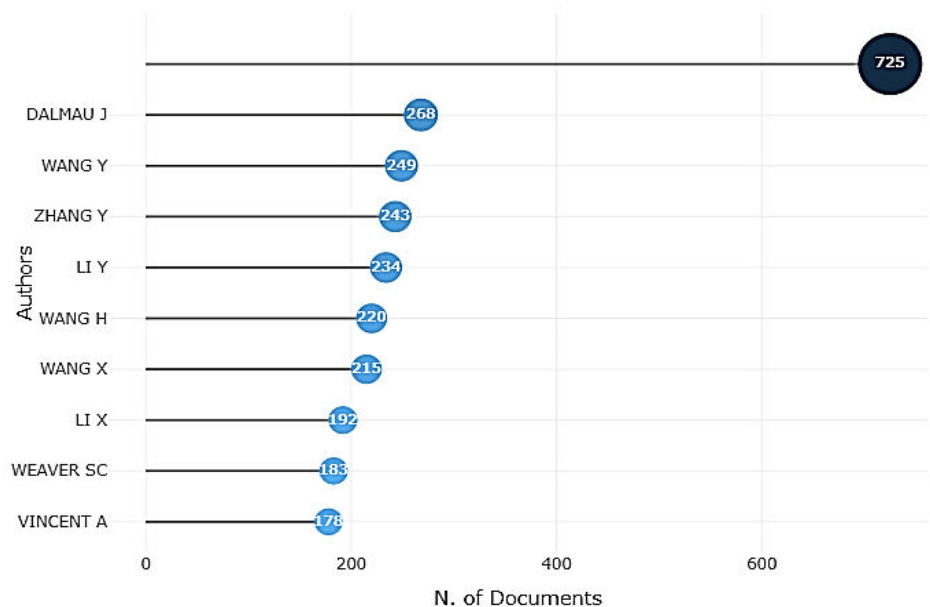


Figure 3 is the most relevant top 10 authors in Encephalitis research. Dalmau J.(268 Publications) ranked first among all authors, followed by Wang Y(249 Publications),Zhang Y(243 Publications) and Li Y(234 Publications).

Figur-4 Most relevant Affiliations

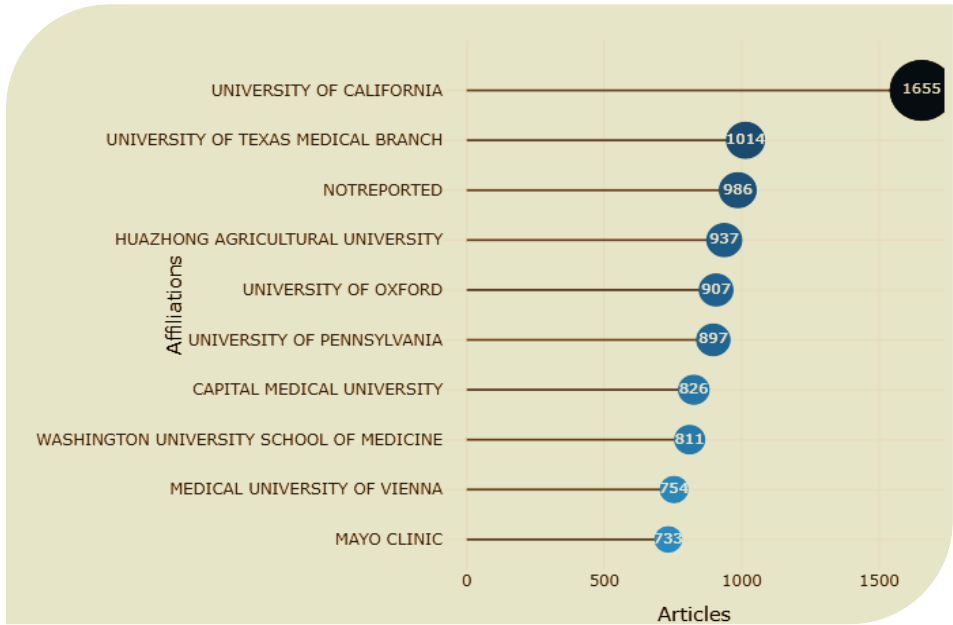


Figure-4 displays the most top 10 affiliation in the field of encephalitis research. These affiliations giving support for research in encephalitis mainly named University of California (1655) Followed by University of Texas Medical Branch (1014), Notreported (986), Huazhong Agricultural University(937)

Figure 5: Country Productivity.

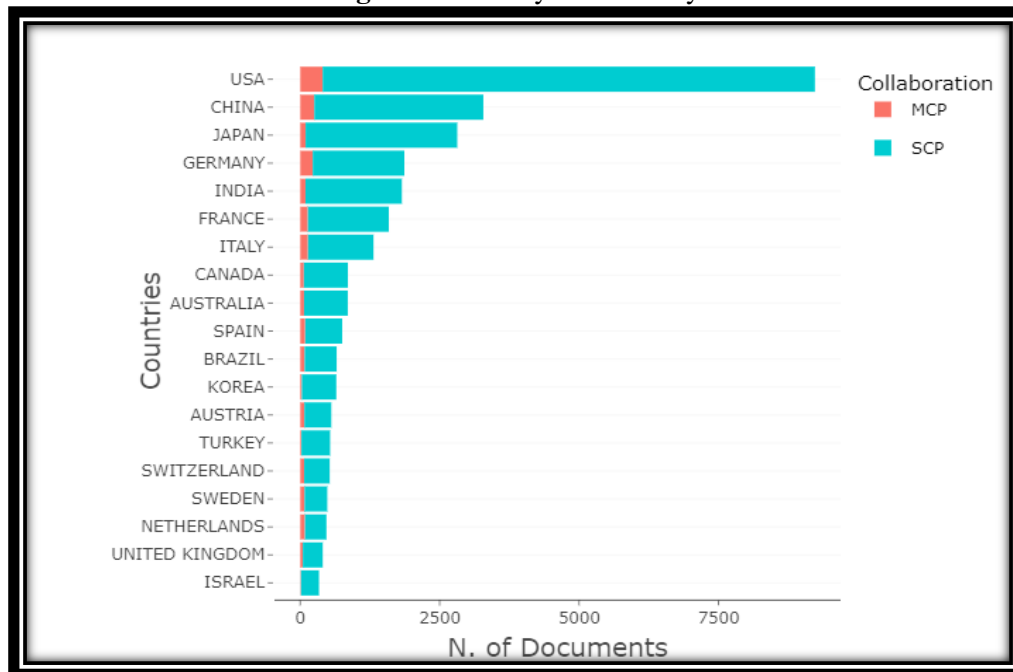


Figure-5 shows that scientific production of encephalitis from several countries, in terms of the paper published. The geographic distribution of papers based on all authors affiliations is concentrated. USA (27861 publications), ranked in first among all the countries, followed by China (21395 publications), Japan (9748 publications), Germany (9724 publications).

Figure-6 Most Frequent words



Figure-6 is the frequency word of the abstract of the encephalitis shown on cloud map. Humans were the most frequently used word in the abstract with 46841(18%) occurrence, while animals was the most frequent word with 25,068(10%) and male was top 3 word occurred in encephalitis with 24,276(10%) female was in top fourth with 23,587(9%).

6. CONCLUSION

By the help of scientometric quantitative analysis and visualization of the data extracted from the PubMed database. This study reveals the mapping of bibliographic information like top ten source, country, authors affiliations and most frequent words.

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MARKET EFFICIENCY, EFFICIENCY INDEX AND THE IMPACT OF INSTITUTIONAL HOLDINGS ON PRICE INFORMATIVENESS -NIFTY MIDCAP

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ABSTRACT

Market efficiency, asset pricing, and market returns are one of the most intriguing topics for researchers across the world. It will continue to be so as markets are dynamic and keep evolving. In this paper, we have studied the market efficiency and impact of institutional holding on Indian stocks. Nifty Midcap 50 is our benchmark index and we have built an efficiency index for Nifty50, Nifty Midcap 50, Nifty 100, and Nifty Midcap 100. The paper documents that neither of the indices follows a random walk. Using rolling window DFA the study found Nifty50 to be most efficient followed by Nifty Midcap50. The paper further investigates the role of institutional investors in price discovery. We found that both foreign institutional holding, domestic institutional holding along with promoter holdings positively impacts the timeliness of price discovery and thus improve the quality of the market. Our study found that FIIs have a greater impact on price informativeness. The study contributes to the literature on emerging markets by building an efficiency index and documenting the role of institutional investors in the price discovery process.

Keywords: Efficient Market, Asset Pricing, Price Discovery, Efficiency Index, Emerging Markets, Institutional Holdings, Institutional Ownership, Promoter Holdings, Hurst exponent.

INTRODUCTION

Capital market efficiency is a barometer for the health of the market. It can be defined as the speed at which new information is absorbed into asset prices. Market efficiency is a sign of shares trading at intrinsic value.

The debate over whether markets are efficient or not is not new and continues to this day. In his 2006 paper on 'Adaptive market Hypothesis', **Andrew Lo** suggested that the market fluctuates between efficiency and inefficiency. We believe that this will remain an ongoing topic as, markets are constantly evolving and their microstructures differ from one market to another.

The efficient market hypothesis was developed by **Eugene Fama** and **Paul Samuelson** in 1965 using different methods. They used the term 'Efficient market' when the prices fully reflect all the available information and it becomes nearly impossible for the market participants to generate higher returns than the market. Also referred to as the random walk hypothesis, the efficient market hypothesis can be divided into three forms. 'The weak form' suggests all the past information is accounted for, 'the semi-strong form' suggests that the security price reflects all current information, and 'the strong form' suggests that all private information is reflected in the price.

During 1960-1980, most of the researchers had confirmed the random walk hypothesis. However, studies post-1980 started documenting contrasting views. Recent studies suggest that market efficiency varies across markets, Indices, and sectors as the information environment is very specific and is impacted by multiple factors.

In this paper, we study the efficiency of Nifty- 50 midcaps with respect to Nifty 50, Nifty 100, and Nifty Mid cap-100 and how institutional holdings impact efficiency. There is a plethora of literature that has suggested the impact of institutional investors on price efficiency. (**Grinblatt, et al. 1995; Nofsinger and Sias, 1999; Wermers 1999, 2000; Jones et al. 1999; Cai, et al.2000; Bennett et al. 2003; Parrino et al. 2003; Sias 2004**).

Till now most of the studies have been conducted on developed markets and very few on emerging markets. Thus leaving huge scope for research on emerging markets. Along with this, the markets have seen many reforms related to 'Regulatory effectiveness', 'Competitive conditions', 'Information environment', 'Transaction costs, and 'Control of Speculation', impacting market efficiency. Many Indices are also being launched to capitalize on various economic segments. This study on the efficiency of the Indian market is much needed.

The limited literature available on the emerging market and on Nifty 50 (Mahajan, V et al. 2022) , Nifty Mid-cap (Kumar, S. and Kumar, L.2017) have rejected the random walk phenomenon, The studies have tried to predict volatility and test efficiency respectively. In this paper, we have ranked the Indices using the rolling window hurst component and built an efficiency index.

Going on with the extant literature on market efficiency and institutional holdings we tried to answer the following research questions.

1. How efficient is Nifty midcap compared to Nifty 50, Nifty 100, and Nifty Midcap 100?
2. How does Stock ownership and size impact price efficiency?

LITERATURE REVIEW AND HYPOTHESIS

Section I: Market efficiency and Random Walk Phenomenon.

Recent studies on emerging markets have mostly confirmed that they are not efficient and do not follow a random walk.(Zebende, G.F et al.2022; Parsons, R. and Nguyen, J. 2022; Cheng J, et al. 2020). A study on G-20 stocks using Detrended Fluctuation analysis and Detrended cross-correlation analysis found that compared to other developed markets emerging markets, which includes Nifty 50 were inefficient (Zebende, et al.2022) however the study was performed for only one year period from 15th May to 19 to 16th June 2020.

Studies using various other statistical techniques like Autoregressive tests, variance ratio tests, unit ratio tests and found the emerging markets aren't efficient. A test on efficiency of Nifty Midcap 50 for four years 15 Sept 2010 to 28 Nov 2014 using autocorrelation tests and confirmed that the Index doesn't follow random walk thus stating its efficiency (Parsons and Nguyen,2022; Dechert, B. and Scheinkman, 1996) Satish Kumar (2017).

Based on the available literature we can thus hypothesize that Nifty Midcap and Nifty small cap 50 don't follow a random walk. Stating our first hypothesis in the alternate form.

1. **H1:** Nifty -Midcap 50 and Nifty Small cap doesn't follow a random walk.

During our literature review, we discovered that trading volumes influence price efficiency. (Davila, E. and Parlato, C., 2017) Since the trading volume varies across Nifty-50, Nifty Midcap-50, and Nifty Midcap-100, we hypothesize that the efficiency level of these indices isn't the same. Our second hypothesis in the alternate form can be stated as.

2. **H2:** The level of efficiency varies across Nifty Midcap-50, Nifty MidCap-100, and Nifty50.

Section II: Institutional Investors and Price Informativeness

The impact of institutional holding on price efficiency is not a recent phenomenon. This was found in the mid-1990s when many researchers studied the impact of institutional investors on the returns and volatility of the stock and claimed that institutional holding/ownership has a direct bearing on the returns (Grinblatt, et al. 1995; Nofsinger and Sias, 1999; Wermers 1999, 2000; Jones et al. 1999; Cai, et al.2000; Bennett et al. 2003; Parrino et al. 2003; Sias 2004,) A study on Mutual funds found that they follow a V shapes selling pattern impacting the equilibrium prices (Li An and Argyle, B.,2016). Recent studies also continue to support the

argument that institutional holding influences price efficiency in more than one way. As a higher level of institutional ownership leads to higher disclosure by firms, Institutional holding has a significant influence on the information environment (**Grossman and Stiglitz, 1980; Verrecchia, 1983; Myers and Majluf, 1984; Boone and White, 2015**) Although this finding has to extensively tested in emerging markets as there exists a high level of information asymmetry in emerging markets. (**Yan and Luis, 2013; Chung et al., 2017**) In a study exclusively on the Taiwan market it was found that foreign institutional investors enhance the flow & quality of information and Foreign Institutional Investors with large holdings will influence the price discovery of the stock market more than when their holding is small (**Hung, et al.2020**).

Based on these studies we can hypothesize that institutional holdings impact price efficiency and since institutional investors prefer liquidity so we build another hypothesis that bigger firms attract more FIIs/DIIs compared to smaller firms. Indian firms usually have high promoter holding compared to that in developed countries. This can be due to the unwillingness to dilute their stake which has a direct bearing on the liquidity. Alternatively, we can also say that high promoter holding can result in less information transparency which can provide investors the opportunity to gain from information search, high promoter holding can influence the price discovery process.

Thus the hypotheses in the alternate form are:

3. **H3:** Greater institutional holding is associated with better timeliness of price discovery
4. **H4:** The impact of institutional holdings on price discovery timeliness is systematically related to firm size and promoter holding.

DATA

For section I of this paper, that is for the test of efficiency nifty midcap 50, we have taken daily closing prices of the stocks data from the NSE website for a period of 5 years starting from May 2016 to May 2022.

For section II, we have used multiple sources like CMIE Prowess, BSE Corporate announcements, and Bloomberg to get data. For the regression analysis to find the stock price informativeness we have used 12 latest quarterly data for the top10 heavy weighted stocks of Nifty midcap 50 from March 19 to March 22. Microsoft Excel, SPSS, and python software have been used for data analysis.

METHODOLOGY

Random walk phenomenon and Efficiency Index.

To test our first hypothesis price efficiency and random walk of Nifty-Midcap50 we use two methodologies –‘Variance ratio’ introduced by (**Lo and Mackinlay,1998**) and then used by many researchers for the test of random walk. (**Omar, S. et al 2018; Cao, C. et al 2017; Charles and Darne, 2009,**)

Along with the parametric test we have used DFA, Detrended Fluctuation Analysis to determine the long memory and test the dependence of time series. We have used a rolling window to calculate the ‘Hurst exponent’. We use the efficiency Index given by (**Kristoufek, L. and Vosvrda, M., 2006**) which is also used by (**Ferreira, P. and Loures, L.,2020**) for comparing the efficiency of the S&P Global clean NYSE Index & Crude oil Index. Efficiency Index is denoted by:

$$EI = \sqrt{\sum_{i=1}^N \left(\frac{M_i - M}{R_i} \right)^2} \quad (1)$$

Where M_i is each DFA exponent, M is 0.5 (the ideal value of DFA when the series follows a random walk.), and R_i is equal to 1 (the range of the DFA exponent). Using this EI can be calculated for all the four time series, the most efficient time series will have the lowest EI, as the value of M_i should be close to efficiency level 0.5.

Institutional Holdings and Price Informativeness

In order to assess price informativeness and timeliness we have conducted a pilot study and have run a regression equation on top10 weighted stocks. In which the dependent variable is a proxy for price informativeness and independent variables are FIIs, DIIs, Promoter Holdings & Size (Market Cap is taken as a proxy for size) .

Two common proxies for price efficiency are:

- Stock price synchronicity (Johnston 2009, Lyimo, G., 2014),and
- M^2 (Coulton et al, 2012, Beekes and Brown, 2006), Where M^2 is denoted by the following equation.

$$M^2 = \sum_{t=-94}^0 |\ln(p_0) - \ln(p_t)|/95 \quad (2)$$

The timeliness measure M^2 is calculated by averaging the difference between the price on day t and the price on day zero. P_t is the share price, which is observed at daily intervals from day -94 until day 0, where day 0 is two days after the earnings announcement date.

Lower the value of M^2 better and quicker the dissemination of the information. Since we are testing the impact of institutional holdings and their impact on the dissemination of information into the stock prices, hence we are using M^2 as a proxy for price informativeness.

Our paper has used the exact days between two-quarter results to come to more accurate predictions about how quickly the intrinsic value is reached when new information is flowing. In the Nifty Midcap stocks, 95 is not always the average number of days between quarterly results; therefore, in our paper we used the exact days between two quarterly results. So in our paper

$$M^2 = \sum_{t=x}^0 |\ln(p_0) - \ln(p_t)|/x \quad (3)$$

Where x is the duration between two result dates.

RESULT AND DISCUSSION

Section I

To test our first hypothesis which is whether the daily returns of Nifty -50 follow random walk or not we have used a variance ratio test with 2, 4, 8, and 16 lags. The results are summarised in Table1.

Table 1: Variance ratio test for daily return of Nifty-Midcap50.

Index	Lags	VR(q)	Z stat	P value
Nifty-Midcap50	2	-0.500	-17.57	0.0000*
	4	-0.752	-14.12	0.0000*
	8	-0.876	-10.40	0.0000*
	16	-0.938	-7.49	0.0000*

* $p < 0.05$, hence p is significant . Source: Authors Analysis

The underlying assumption for a random walk is that the current stock prices are not influenced by past stock prices ,that is if they are independent then the variance of the stock return of k -day intervals should exactly be equal to the variance of daily stock return multiplied by k . Mathematically it can be put as k -day variance = k * Daily variance, where k is the length of the

interval. In a simplistic manner, it can be interpreted as the returns of day r_t are not influenced by the returns of r_{t-1} .

The result obtained for each lag is different and significant, hence we can accept our alternate hypothesis and can conclude that Nifty Midcap 50 does not follow a random walk.

To test our second hypothesis and conduct a comparative analysis we have implemented a very new technique from 'Econophysics' called DFA and calculated the efficiency index given by equation (1). DFA is a method used to test long memory dependence in time series. It is also referred as long memory. It tests the dependence of a value at time t on another value at point t^* . If the value of the hurst exponent is equal to 0.5, it implies the series is a random walk. The result obtained through dynamic hurst exponent are summarised in the following table

Table2: Detrended Fluctuation Analysis (DFA) for the period 2015 to 2022

Index	Hurst Exponent	Standard Deviation	Efficiency Index
Nifty -Midcap 50	0.6027	0.0111	2.8261
Nifty-Midcap 100	0.6312	0.0141	3.2142
NIFTY 50	0.6159	0.0123	2.5137
NIFTY 100	0.6054	0.0123	2.5837

Source: Authors Analysis.

The above results have been obtained using sliding windows and we can conclude that the none of the indices mentioned are efficient and follows random walk, As the mean DFA exponent is below 0.5.

Table 3: Interpretation of the Hurst exponent

Parameter	Interpretation
If $H = 0.5$	Series follows a random walk
If $H > 0.5$	Series is not a random walk, trend reinforcing series
If $H < 0.5$	Series is not a random walk, Mean reverting series.

Source: Harold Edwin Hurst

From the above reference table we can conclude that Nifty Midcap 50 is not efficient and it does not follow a random walk, thus we can accept our first null hypothesis. The pictorial depiction of the hursts exponents obtained through a sliding window is shown in the following charts.

Figure1: Hurst exponents for Nifty Midcap 50

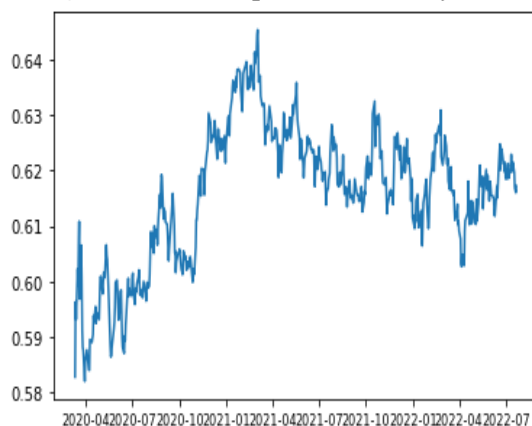


Figure2: Hurst exponents for Nifty- 50

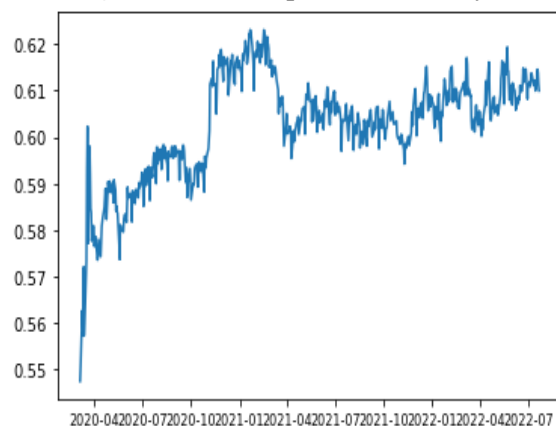
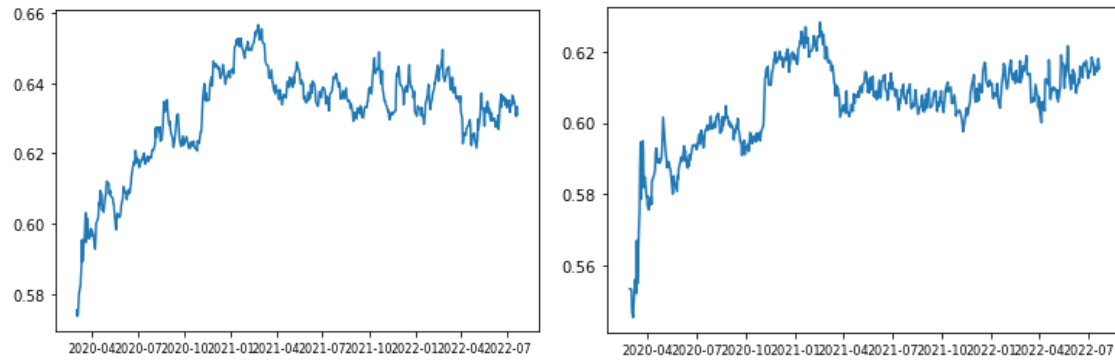


Figure3: Hurst exponents for NiftyMidcap100

Figure4: Hurst exponents for Nifty100



We notice that the values of Hurst exponent have never been equal to 0.5 for the above said period. Table 3 shows the ranking of the indices based on Efficiency Index calculated using equation (1).

Table 4: Ranking order of efficiency

Index	Efficiency Index	Rank
NIFTY 50	2.5137	1
Nifty -Midcap 50	2.8261	2
NIFTY 100	2.5837	3
NIFTY 50	3.2142	4

Source: Authors Analysis.

A lower value of efficiency index implies greater efficiency since the calculation of the efficiency index uses the difference between each Hurst exponent and the ideal hurt exponent (0.5 in case of random walk series).

Section II

To test our third and fourth hypotheses we have built a regression model and from share price and result date information for the last three years, we have calculated M^2 for 10 heavyweight midcap stocks using equation (3).

The basic regression model can be expressed by the following mathematical equations.

$$M^2_{it} = \alpha_t + \beta_{1t}FIIH_{i,t} + \beta_{2t}DIIH_{i,t} + \beta_{3t}PH_{i,t} + \gamma_t S_{i,t} + \varepsilon_{it} \quad (4)$$

Where M^2_{it} is the timeliness measure for firm i for quarter t ; $FIIH_{i,t}$ and $DIIH_{i,t}$ are the measures of foreign institutional holding and domestic institutional holding in firm i during quarter t respectively and PH is the promoter holding and $S_{i,t}$ is firm size whose proxy is market cap.

We have run the regression equation (4) using the stepwise method in SPSS. Result of the regression equation (4) is significant for FIIs (Foreign Institutional Investors) holdings, DIIs (Domestic Institutional Investors) holdings, and for promoter holdings. The result obtained is summarised in table 4.

Table 5: Result of the regression equation (4)

Variable	Coefficients	Standard error	T value	Adj R ²	Level of Sig.
FII Holding	1.266	.1950102	9.726	.648	.000
DII Holding	.404	.1890893	4.018	.669	.000
Promoter Holding	.293	.1809215	3.036	.697	.003

Source: Authors Analysis.

On the basis of the result, we can accept our alternate hypothesis (H4) which claims that institutional ownership positively impacts price informativeness and improves market efficiency. According to our model high promoter holding seems to positively impact price discovery. As per our study market cap has no significant effect on price discovery.

CONCLUSION

In this paper, we have attempted to study the Nifty midcap 50's efficiency level compared to other standard indices of Indian stock market (NSE). We have also examined the impact of foreign and domestic institutional holdings on the timeliness of price discovery of Nifty midcap 50 stocks.

The result obtained through variance ratio and DFA confirms that Nifty midcap 50 is not efficient and does not follow random walk, the result also provides sufficient evidence to say that Nifty midcap is less efficient than Nifty 50.

The results obtained through regression analysis provides sufficient evidence to conclude that institutional investor holdings are associated with improved timeliness of price discovery positively and hence contribute to the informational efficiency of the market. Moreover FIIs seems to have a dominating effect on price discovery compared to DIIs and Promoter holdings.

Our study may contribute towards policy decisions regarding encouraging institutional ownerships as in India the institutional holding are at a very low level compared to that in US and other developed markets.

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MONTHLY INCOME: A DETERMINANT OF WORK - LIFE BALANCE AMONG SCHOOL TEACHERS

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ABSTRACT

The teachers of today have to play dual roles at their homes and at schools; thereby they find it very hard to fulfil the needs of both the spheres. This affects the mental and physical well being causing stress among school teachers.

Purpose: *The present study is about studying the WLB of the school teachers of Bhiwani and Rohtak district. The Demographic factors are one among the factors affecting the WLB of the working population. In the study an attempt has been made by the study the relationship between the monthly income and WLB (its dimensions). The objective is also to study the difference in WLB and its dimensions among different income groups.*

Design/Methodology/Approach:

The study is done on 547 PGT school teachers adopting convenience sampling techniques to collect the primary details. The SPSS 20 has been used to analyze the collected data. Hayman (2005) WLB scale has been used to collect the primary data. The various statistical tools used in the research are Karl. Person correlation one way ANOVA The key and games Howell post-hoc test.

Findings: *The study found that there existed a positive relationship between monthly income of school teachers and WLB (its dimensions) and also the WLB differed among the income groups. The WLB of the teachers getting more than Rs 60000 was found to be higher than the others income groups. It can be inferred that schools teachers with high income can afford maids dining out, vehicles etc which will help in balancing both personal as well as working life*

Keywords: *Work - Life Balance, teachers, Work -Life Conflict, Demographic.*

INTRODUCTION

There has been an increase of awareness regarding the conflict between the work and personal life domains since 1960's. The work place developments such as 24/7 work models, competitiveness, economic orientation, enlargement of service sector, increased levels of education and increase in women workforce, upsurge of couple earner families and changes in composition of households has encouraged the scholars, individuals and organisations around the world to research in the area of WLB . As a result organisations and individuals are putting their efforts to maintain a pivotal balance concerning work and family life by curtailing the incompatibilities between the two that is "Work-Family Conflict".

The growing interest in term WLB stems from following challenges:

Globalization and Technological Advances: The rapid growth in technology has blurred the boundaries of work and home, increasing challenges for the employees to meet demands of both family and the paid work.

Demographic, Social and Environmental Trends:

Rapidly ageing population: has given rise to increasing concerns about how the workers meet the needs not only of their immediate families but also of their extended families. **Covid-19 pandemic:** During covid-19 pandemic many companies moved to virtual work. Absence of fixed working hours, loss of friends and family members to corona virus, WFH led to burnout, depleted mental health etc. **Growth of women workforce in paid work .** Changing

family structures: growth in single parent households, nuclear families etc. Growth of non-standard work: such as temporary work, lower hourly wages, job insecurity etc. Long and unpredictable working hours.

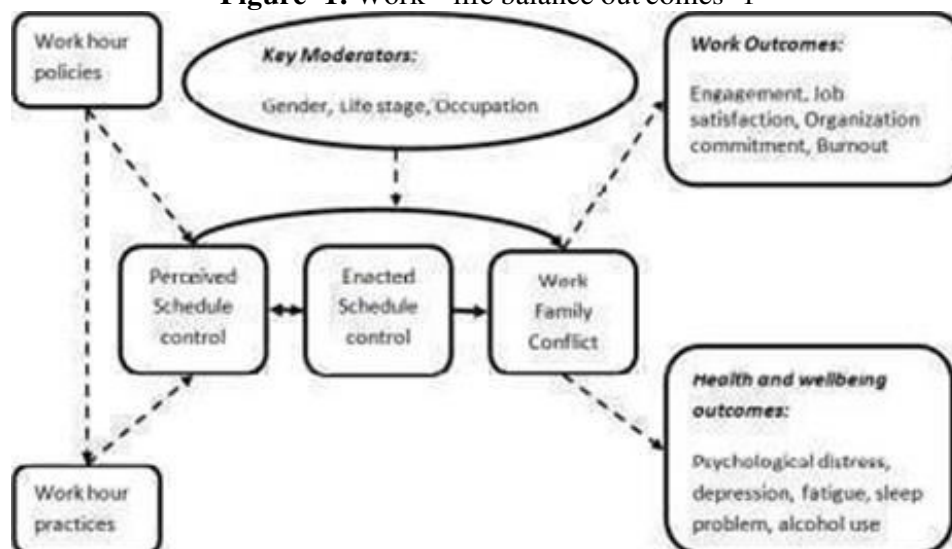
WORK-LIFE BALANCE OUTCOMES

The Work-life balance conflict issues of the employees are known to the organisations by the work-life balance Outcomes.

A conceptual model focusing on the association between schedule control and work-family conflict was developed by (Kelly and Moen 2007). The model consisted of three mediators such as gender, profession and life stage. The scheduled control has two elements, perceived schedule control and the enacted schedule control.

Hourly work policies and practices cause perceived scheduled control which means feeling to change work schedule. Enacted schedule control means actually altering work schedule as per requirement. When the enacted work schedule is same as perceived work schedule it leads to less work-family conflict.

Figure -1: Work – life balance out comes -1



TEACHER

An individual who works in an institution affiliated with the Board for teaching and who is qualified according to the section -23 of RTE Act 2009 or as per affiliation Bye-laws of the board. The aspirants to become a teacher at the pre-nursery, nursery, primary secondary and senior secondary levels in schools should possess the right qualification.

1. Post Graduate Teacher (PGT): The post graduate teacher teaches from class IX to XII std. The post graduate teacher must have a post graduation degree with the B. Ed course. To become a post graduate teacher the candidate must have any of the following qualification from a recognized university or institution.

1. Master degree in Science
2. Master degree in Arts
3. Master degree in Commerce
4. Master degree in Computer Application
5. Any other Master's degree.

The post graduate teachers are responsible for instructing students regarding their concerned subject at senior secondary level. They help and guide the students in their learning, discussing the curriculum and giving the students all class information. They teach the subjects specifically to the students.

REVIEW OF EXISTING LITERATURE

Srinivas (2019): Had collected the opinion of the 750 respondents of ITES industry on Work-life balance in Vishakhapatnam and also examined the impact of demographic variables on WLB. Most of the respondents indicated that they can balance their work and family, few were found not to be balancing the work and family. Multiple Linear Regression Analysis was used to examine the impact of demographic variables on WLB, t-test and ANOVA also used in the study for analysis of data. It was revealed in the study that the respondents were satisfied by the WLB practices. Monthly Income do not affect the WLB according to the study. The two variables which affected the WLB were company type and working hours..

Jain, Gautam (2018): emphasized on how Work-life balance influence well-being of 114 production employees. The research was conducted in Dheradun and Haridwar district, India. The impact of different demographic variables on the WLB was studied by ANOVA.. The WLB is not influenced by the monthly salary of the employees. The research found that the compensation factors and the WLB have a strong and positive relationship and also the family life suffers due to work -life imbalance.

Bhavana.G. Dangar (2018): attempted to know the effect of the Work-life balance on the job satisfaction. The study was done on 128 education teachers in Gujarat, from various institutes. The effect of WLB on the job satisfaction was studied through Regression analysis. The other tools used in the study were independent t-test and ANOVA. The study reported that WLB affects job satisfaction of the teachers and WLB and job satisfaction are influenced by the income of the teachers.

Rifaya, Devi, Pamaja, Mohammed (2017): Found that no relationship exist between the demographic variables and the Work-life balance of the women teachers in Shivakasi (Tamil Nadu). The demographic variables taken in the study were education level, age, family type, monthly income and experience. The research was done on 90 teachers. The result of the chi-square analysis revealed that the WLB of the teacher is disturbed by the work pressure and household responsibilities. Both demand same and equal time which the teachers were not able to devote, creating stress thus making work-life imbalance. The study stated that the support provided to the teachers at work and home is the main factor responsible for Work-life balance.

Saluja, Sidhu Kaur (2017): Investigated to examine the Work-life balance of women employees in financial institutions. The work life imbalance problems were also studied. The study was carried on 450 respondents from banking and insurance sector. The WLB and demographic factors showed a high correlation. Among the demographic variables, income did not have much effect on WLB. Positive correlation was found between job satisfaction, career goal achievement and organizational dedication.

Bagrecha, Roshani (2017): The demographic variables taken in the research were age, marital status, education, experience, total family members, and monthly income. The work variables used in the study were distance from workplace/residence, time spent in travel, mode of transport, work shift to study the impact on WLB of Government and Private Hospital 400 nurses in Bangalore. The impact was studied with Multiple Regression Analysis. From the analysis it was found that all the demographic variables and work variables taken in the study had the impact on both Government and private hospital nurses..

Satayanarayana, Shanker (2012): had tried to research whether there is a Work-life balance in the IT enabled services sector with the focus on WIPL, PLIW and WPLE. The study also analyzed the effect of demographic factors such as age, gender, Marital status, parental status, income and work experience and WLB. The respondents earning less income were found to be highly impacted by PLIW and moderate impact on WPLE for all income groups.

RESEARCH METHODOLOGY

OBJECTIVES OF THE STUDY

- To examine the relationship between Monthly Income and Work-life balance and its dimensions among school teachers.
- To study the difference in Work-life balance and its dimensions among school teachers at the varied levels of the Monthly Income

HYPOTHESIS

H01 There is no significant relationship between Monthly Income and Work-life balance and its dimensions among school teachers.

H02 There is no significant difference in Work-life balance and its dimensions among school teachers at varied Monthly Income levels.

The study is done on 547 PGT school teachers from Bhiwani and Rohtak district adopting convenience sampling technique to collect the primary details. The SPSS 20 has been used to analyze the collected data. Hayman (2005) WLB scale has been used to collect the primary data. The Scale has 15 variables covering three dimensions namely WIPL, PLIW and WPLE. The various statistical tools used in the research are Karl. Pearson correlation, one way ANOVA Tu key and Games Howell post-hoc test.

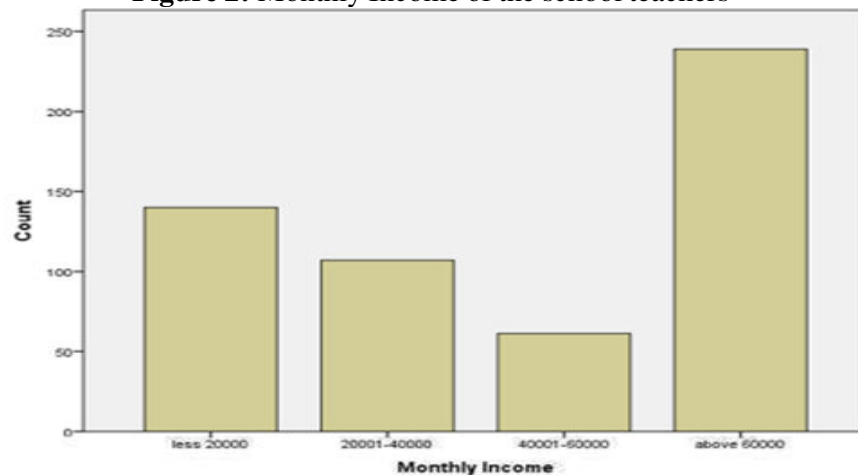
ANALYSIS AND INTREPRETATION OF THE DATA

Monthly Income profile of the respondents

Table 1: Monthly Income of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less 20000	140	25.6	25.6	25.6
	20001-40000	107	19.6	19.6	45.2
	40001-60000	61	11.2	11.2	56.3
	above 60000	239	43.7	43.7	100.0
	Total	547	100.0	100.0	

Figure 2: Monthly Income of the school teachers



The Pearson correlation coefficient is used in the research to know to what extent the variables are linearly related. In the present study it has been tried to measure the association between the Monthly Income and WLB and its dimensions WIPL, PLIW, and WPLE of the school teachers.

The null hypothesis was tested by Pearson's Correlation test

Table 2: Correlation Coefficient between Monthly Income and WLB and its dimensions

	Monthly Income
WIPL	.271**
	.000
	547
PLIW	.232**
	.000
	547
WPLE	.123**
	.004
	547
WLBT	.267**
	.000
	547

Regarding the monthly income of the school teachers, there existed a significant positive correlation between the monthly income of the PGT school teachers and WIPL with $r=0.271$ with significance $0.000(p<0.001)$ at 1% level of significance. The relationship between PLIW and monthly income of school teachers was found to be significantly positive with $r=0.232$ and significance value 0.000 at 1% level of significance ($p<0.001$). The correlation coefficient of WPLE was $r=0.123$ with the significance 0.000 ($p<0.001$) at 99 % level of significance depicting a positive association. The overall WLB was significantly correlated to the monthly income of the PGT school teachers with correlation coefficient $r=0.267$ with the significance (0.000) which is less than $0.001(p<0.001)$ at 1% level of the sig.

The overall Work-life balance and monthly income of the school teachers was found to be positively correlated. As seen in the table the correlation coefficient is found significant at 0.001 level, which means that there exists a significant positive relationship ($p<0.001$), implying that the test is statistically significant and from this we reject the above stated hypothesis

Table 4: Homogeneity Test of Variances (Monthly Income)

	Levene Statistic	df1	df2	Sig.
WIPL	.107	3	543	.956
PLIW	3.931	3	543	.009
WPLE	.633	3	543	.594
WLBT	1.038	3	543	.375

The table gives the details of the Levene's Test of Homogeneity of Variances which is applied in the research to identify whether the variance across the dimensions is equal or not. The table depicts that the assumption of equal variance is, met for the overall Work-life balance (sig-.375, $p>0.05$) for the dimension WIPL (sig-.956, $p>0.05$) at 5% significance level, for the dimension WPLE (sig-.594, $p>0.05$). As the p value is greater than ($p>0.05$), so we say that variance among WLBT, WIPL, and WPLE is equal. So one way ANOVA can be applied to identify the difference in income groups. The p value of the dimension PLIW is sig-.009 ($p<0.05$) at 5 % level of significance, so assumption of equal variance is violated for

PLIW dimension. Here to examine the differences among the different income groups Welch Robust test of Equality of Means is applied, which is an accurate test when the homogeneity of variance does not hold true,

Table 5 ANOVA: WLB and its dimensions & Monthly income

	Sum of Squares	df	Mean Square	F	Sig.
WIPL	4656.413	3	1552.138	19.295	.000
	43680.973	543	80.444		
	48337.386	546			
WPLE	615.102	3	205.034	8.419	.000
	13224.555	543	24.355		
	13839.656	546			
WLBT	15203.036	3	5067.679	20.139	.000
	136639.747	543	251.639		
	151842.782	546			

The results of ANOVA test as shown in the table was the value of F-19.295 for the dimension WIPL, since the ($p < 0.05$) it was found to be statistically significant or we can say that there was significant difference among the various income based groups on this dimension in relation to the income of the PGT school teachers. The F value of the dimension WPLE was F- 8.419, which was statistically significant at 5% level of significance ($p < 0.05$) at 95% level of confidence depicting that there is no similarity in WPLE across the different income groups of the teachers. The overall WLB of the PGT school teachers was also found to be statistically significant with F- 20.139 and ($p < 0.05$) making clear that there existed differences in WLB at different income groups <Rs 20000, Rs 20001 to 40000, Rs 40001 to 60000 and >Rs 60000.

Since the different income groups were found to be statistically significant on the dimension WIPL, WPLE and overall WLB, the post hoc analysis was employed to identify the pair of income groups that devoted to the significant differences.

Table 6: Robust Tests of Equality of Means (In relation to Monthly income)

PLIW				
	Statistic ^a	df1	df2	Sig.
Welch	12.977	3	195.622	.000
a. Asymptotically F distributed.				

The table shows the details of the Robust Test of Equality of Means. The result gave a significant difference in PLIW with F- 12.977 which is ($p < 0.05$). So it could be inferred that there exist difference among various income based groups on the dimension PLIW.

The Tukey HSD post hoc test is employed for the Work-life balance and its dimensions WIPL and WPLE to examine the differences.

Table 7: Tukey post hoc Test for comparisons of WLB of school teachers at Varied levels of Monthly Income.

Table 7. Multiple Comparisons							
Tukey HSD							
Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
WIPL	less	20001- 40000	1.00581	1.15170	.819	-1.9621	3.9737

	20000	40001- 60000	-.10527	1.37599	1.000	-3.6512	3.4407
		Above 60000	-5.50571*	.95456	.000	-7.9656	-3.0458
	20001- 40000	Less 20000	-1.00581	1.15170	.819	-3.9737	1.9621
		40001- 60000	-1.11108	1.43894	.867	-4.8192	2.5971
		Above 60000	-6.51152*	1.04326	.000	-9.2000	-3.8230
	40001- 60000	Less 20000	.10527	1.37599	1.000	-3.4407	3.6512
		20001- 40000	1.11108	1.43894	.867	-2.5971	4.8192
		Above 60000	-5.40044*	1.28660	.000	-8.7160	-2.0849
	above 60000	Less 20000	5.50571*	.95456	.000	3.0458	7.9656
		20001- 40000	6.51152*	1.04326	.000	3.8230	9.2000
		40001- 60000	5.40044*	1.28660	.000	2.0849	8.7160
WPLE	less 20000	20001- 40000	.96095	.63370	.428	-.6721	2.5940
		40001- 60000	1.64227	.75711	.133	-.3088	3.5934
		Above 60000	-1.24044	.52523	.086	-2.5939	.1131
	20001- 40000	Less 20000	-.96095	.63370	.428	-2.5940	.6721
		40001- 60000	.68132	.79175	.825	-1.3590	2.7217
		Above 60000	-2.20138*	.57403	.001	-3.6807	-.7221
	40001- 60000	Less 20000	-1.64227	.75711	.133	-3.5934	.3088
		20001- 40000	-.68132	.79175	.825	-2.7217	1.3590
		Above 60000	-2.88271*	.70793	.000	-4.7070	-1.0584
	above 60000	Less 20000	1.24044	.52523	.086	-.1131	2.5939
		20001- 40000	2.20138*	.57403	.001	.7221	3.6807
		40001- 60000	2.88271*	.70793	.000	1.0584	4.7070
WLBT	less 20000	20001- 40000	1.55641	2.03695	.871	-3.6928	6.8056
		40001- 60000	1.31909	2.43365	.949	-4.9524	7.5906
		Above 60000	-9.76823*	1.68828	.000	-14.1189	-5.4175
	20001- 40000	Less 20000	-1.55641	2.03695	.871	-6.8056	3.6928
		40001- 60000	-.23732	2.54499	1.000	-6.7958	6.3211
		Above 60000	-11.32464*	1.84517	.000	-16.0796	-6.5696
	40001- 60000	Less 20000	-1.31909	2.43365	.949	-7.5906	4.9524
		20001- 40000	.23732	2.54499	1.000	-6.3211	6.7958
		Above 60000	-11.08732*	2.27554	.000	-16.9514	-5.2232
	above 60000	Less 20000	9.76823*	1.68828	.000	5.4175	14.1189
		20001- 40000	11.32464*	1.84517	.000	6.5696	16.0796
		40001- 60000	11.08732*	2.27554	.000	5.2232	16.9514

*. The mean difference is significant at the 0.05 level.

The result of the Tukey HSD post hoc analysis as shown in the above table is that the WIPL differed significantly between the school teachers belonging to above Rs 60000 group with significance value 0.000($p < 0.05$) and the other three income groups. However no significant difference was found in WIPL between income groups less than Rs 20000, Rs 20000 to Rs 40000 and Rs 40001-60000($p > 0.05$). The WIPL was found highest in the income group Rs 20001-Rs 40000 (M-27.4) followed by less than Rs 20000 (M- 27.4), Rs 40001-60000(M-28.5) and above Rs 60000(M- 33.9).

The WPLE differed significantly among the school teachers belonging to above Rs 60000 group with significance value 0.001 and 0.000($p < 0.05$). However no significant difference was found in WPLE among income groups less than Rs 20000, Rs 20001 to Rs 40000 and Rs

40001-60000($p>0.05$). The WPLE was found highest in the income group above Rs 60000 (M-22.2) followed by less than Rs 20000 (M- 21.03), Rs 20001-40000 (M-20.07) and above Rs 40001-60000(M- 19.3).

The overall Work-life balance differed significantly between the school teachers belonging to above Rs 60000 group with significance 0.000($p<0.05$) and the other three income groups. However no significant difference was found in WLBT among income groups less than Rs 20000, Rs 20001 to Rs 40000 and Rs 40001 to 60000($p>0.05$). The WLBT was found highest in the income group above Rs 60000 (M-76.6) followed by less than Rs 20000 (M- 66.8), Rs 40001-60000 (M-65.6) and Rs 20001-40000(M- 65.3).

Table 8: Games-Howell post hoc result: comparisons of WLB and its dimensions & Monthly Income.

Table 8: Multiple Comparisons						
Dependent Variable: PLIW						
Games-Howell						
(I) Monthly Income		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
less 20000	20001-40000	-.41035	.70084	.936	-2.2251	1.4044
	40001-60000	-.21792	.92903	.995	-2.6477	2.2118
	Above 60000	-3.02209*	.54544	.000	-4.4314	-1.6128
20001-40000	Less 20000	.41035	.70084	.936	-1.4044	2.2251
	40001-60000	.19243	.99107	.997	-2.3919	2.7767
	Above 60000	-2.61174*	.64546	.000	-4.2850	-.9385
40001-60000	Less 20000	.21792	.92903	.995	-2.2118	2.6477
	20001-40000	-.19243	.99107	.997	-2.7767	2.3919
	Above 60000	-2.80417*	.88800	.012	-5.1337	-.4747
above 60000	Less 20000	3.02209*	.54544	.000	1.6128	4.4314
	20000-40000	2.61174*	.64546	.000	.9385	4.2850
	41000-60000	2.80417*	.88800	.012	.4747	5.1337

*. The mean difference is significant at the 0.05 level.

The Games Howell post-hoc analysis shows that the income groups less than Rs 20,000, Rs 20001-Rs 40,000 and Rs 40001-Rs 60,000 were found to be statistically insignificant ($p>0.05$) inferring that they have same views regarding PLIW, however the income group above Rs 60000 differed in PLIW with significance value 0.000 and 0.012 with the other three groups ($p<0.05$).

As seen in the ANOVA and Welch table the F value is found significant at 0.05 level, which means that there is significant difference among varied monthly income groups, ($p<0.05$), denoting the test is statistically significant and from this we reject the above stated hypothesis

FINDINGS OF I OBJECTIVE

- The study finds the correlation between the monthly income and the dimension WIPL. There is a significant positive correlation between the monthly income of school teachers and dimension WIPL.
- The analysis reveal there is a significant positive relationship between the dimension PLIW and monthly income of the school teachers,
- It was found in the study that there is a significant positive association among the dimension WPLE and monthly income of the school teachers.

FINDINGS OF II OBJECTIVE

- The study revealed that there is equal variance among the dimensions WIPL, WPLE and the overall WLB of the school teachers. The dimension PLIW showed that the variance is not similar among the different groups on the basis of the monthly income of the school teachers.
- The ANOVA test found a significant difference among the different income groups on dimension WIPL, WPLE and WLB since ($P < 0.05$) at 5% level of sig.
- The Welch Robust Test of Equality of Means depicted that the dimension PLIW is significantly different among the varied income groups of the school teachers.
- The Tukey HSD post hoc analysis found that the dimension WIPL differed significantly between the income groups less than Rs 20000 and above Rs 60000. The other three income groups less than Rs 20000, Rs 20001 to 40000 and Rs 40001 to 60000 were found to be statistically insignificant in WIPL.
- The income groups <Rs 20000, Rs 20001 to 40000, Rs 40001 to 60000 and the group above Rs 60000 were found to be statistically significant in PLIW.
- The dimension WPLE differed for the income groups Rs 20001 to 40000, Rs 40001 to 60000 and above Rs 60000 in the study.
- It was found that the Work-life balance of the income groups <Rs 20000, Rs 20001 to 40000 and Rs 40001 to 60000 was insignificant.
- The study found that the income groups <Rs 20000, Rs 20001-40000 and Rs 40001-60000 were found to be similar on the dimension PLIW. These three groups differed significantly with the income group above Rs 60000 on the dimension PLIW.
- The multiple comparisons found that the income group above Rs 60000 is significantly different in WLB from three income groups.

CONCLUSION

It can be concluded that there is a positive relationship between the monthly income of the school teachers and the Work-life balance and its dimensions. It can be concluded that the school teachers getting high salary are more successful in maintaining their work and personal life balance because they can afford maids for household chores, recreational activities, entertainment activities, dining out and also they do not face financial burden. The teachers with low income showed less Work-life balance. Therefore the school teachers have to learn to build up savings and make themselves financially stable to maintain Work-life balance. The Government/school Management must regulate the compensation system and should develop salary increment policies schemes because they motivate the teachers and promote WLB. Fair compensation policy should be followed. The work-life balance balances recognize the teacher welfare. Even though the ratio of work and personal cannot be fixed the correct blend of work and life can be achieved only by fixed and nonstop efforts in promoting such balance by innovative approaches and working practices.

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MOTHER TONGUE INFLUENCE ON ENGLISH: A BANE OR BOON?**Meenakshi Dabas¹ and Dr. Ishrat Naaz²**¹School of Education, Galgotias University, Greater Noida, Gautam Buddh Nagar, Uttar Pradesh– 203301²Assistant Professor, School of Education, Galgotias University, Greater Noida, Gautam Buddh Nagar, Uttar Pradesh– 203301**ABSTRACT**

The major goals of the study are to: (a) describe the impact of mother tongue on speaking English; (b) describe and clearly assess the difficulties English-speaking students face; and (c) describe the students' methods for addressing their issues with speaking English. Does mother tongue helps to learn the new language in any mean or it hinders the learning of second language. The value of mother tongue proficiency in second language learning oscillates between two schools of thought, with one labelling it interfering influence and the other calling it usefulness.

Keywords: English language, Influence, Mother Tongue, Second language

INTRODUCTION

THE ROLE OF LANGUAGE: Language is a highly potent and delicate weapon. It is a vital characteristic of a population. It has the ability to both create and destroy, to both reveal and to conceal, to both ease and to obstruct, to both amplify and to restrict, to both act as a facilitator and as a barrier, to both link and bind and divide, to both be used as an open code and as a secret code to which others have no access at all. When it comes to the preservation and transmission of culture, language is the most inventive means of human communication. In the multilingual, multiracial, multicultural, and multi-ethnic nation of India, language is very important and relevant. The eighth schedule of our constitution originally included fourteen languages; there are currently twenty.

The phrase "**mother tongue**" is used to refer, in a wide sense, to the speaker's native tongue as well as their dominant and home languages. The native tongue is another name for it. This study sought to ascertain whether mother tongue interference affects the learning of a second language, whether it has an effect on learners' performance in four language skills, and which skill or abilities are most severely impacted.

The significance of mother tongue in learning a second language has been the subject of considerable debate. This study looked at how the mother tongues of students who spoke Hindi affected their capacity to learn English as a second language and other related issues.

Language is not everything in education, but without language, everything is nothing in education. –Wolf

Different languages have different roles to play. The mother tongue has a role; the regional language has a role; foreign and classical languages have their roles. They are complementary. **"Those who are good in language are good in all other subjects and those who fail in language fail in every other subject". -Bernstein.**

REVIEW OF LITERATURE

"Practically all the human knowledge can be found in the books and library. Unlike other animals that must start a new with each generation, man builds upon the accumulated and recorded knowledge makes possible progress in all areas of human endeavour". –**Best John.**

The research can be completed accurately only if the researcher knows what has been done in that field by others. A good researcher therefore, makes every effort to dig from and near the

stages concerned and also the stages that need to be searched. A study of the related studies is of paramount importance. The phrase “review of literature” consists of two words viz. Review and Literature. The term ‘review’ means to organize the knowledge of the specific area of research to evolve an edifice of the knowledge to show that his study would be an addition to this field. The literature is used with reference to the language. Review of literature means “A survey of the printed material dealing with or bearing on a given subject or problem embodying the findings of such a search.” Good’s dictionary of Education A review of the related literature means a view of the problems which has been dealt and is related to investigator’s own problem. The survey of the related literature plays a vital role in the planning of related literature is to locate study and evaluate the past as well as the current literature of research. Purpose of the review of the literature The general purpose of the review is to develop a thorough understanding and insight into the previous projects and the trends that have emerged; the review can also help in reaching a no. of important goals. It enables the investigators to improve his investigation. It enables the investigation, the means of getting the net frontier in the field of investigation, unless he has learnt what has been and what still remains to be done in a particular field, he cannot develop a project that will certainly contribute something to the knowledge existing in that particular field, without the investigator is in the wilderness as the ship may be without compass in the ocean but both of these are just like a pole star for him.

Mishra J.N. (1970) conducted a study on the problems and difficulties of English Language at secondary stage. The main findings of the study were: (a) Teachers do not pay attention to the correct pronunciation practice. (b) 75% of the teachers recommended oral and written practice to improve upon correct spelling. (c) 40% of the teachers did not give practice to loud reading and less than 50% of the teachers asked the students to memorize certain good pieces of prose and poetry.

Sethi A.S. (1976) conducted a study of a programme in English spelling in relation to usual and auditory presentation. The major findings of the study were: (1) The auditory mode found to be more superior to the visual mode in the presentation to the programme in English spelling to class Xth students of English medium school (2) Girls performed better than boys. (3) The interaction difference in the performance of boys and girls appeared to be independent of the modes of presentation. (4) Time of test appeared to have a significant effect on the performance of boys and girls. (5) Boys seemed to perform better in the delayed test in terms of their performance and the immediate tasks. (6) The auditory mode of presentation was more effective for the performance for the delayed test.

Patrikar, M.S. (1981) conducted a study on the errors in written English of students. These errors were classified into four categories of linguistic terms. (1) Lexical errors- 83% Of the errors were due to the omission of the lexical items, 10% due to wrong use of lexical items and 7% due to unnecessary addition of lexical items. (2) Orthographical errors- spelling errors found to be occurring due to faulty pronunciation, confusion in similar sounds of words, false analogy, double vowels or consonants and lack of knowledge of rules governing morphological changes. Singh, **H.N. and Srivastave, I.S (1981)** conducted a study on common errors in written English. The dictation tests were selected from word vocabulary for secondary schools. Spelling mistakes from written English were collected lists of spellings with difficulty and hard spot expressed in percent were prepared and the nature of misspellings obtained from written English and word dictation tests were scrutinized.

Jindal (1979) conducted a study under the topic, problem of pronunciation of individual words of English as spoken by the teachers of English in the rural schools of Punjab.” The study concluded: 1) Teachers of English in the rural schools of Punjab show interference of their mother tongue in phonemic alteration of vowels and consonants. 2) There is also an impact on word stress. 3) They show this interference due to false analogy.

Luthra, N (1993) conducted a study in PhD entitled, “An analysis of interference of mother tongue in the pronunciation of English at +2 levels in the schools of Haryana and educational implications of teaching pronunciation in class room situation.” The major findings were: 1) Interference of mother tongue leads to phonemic alteration of vowels and divergence from 15 vowels. 2) Word stress was also found to be interfered by mother tongue.

Ali, S (1999-2000) conducted a study under a topic, “Learning a Third Language – Interference from the Second Language”. The findings of the study were: 1) There is a substantial interference from the learner’s mother tongue in learning of the other language. 2) About one third of the total errors have been committed due to the interference from the learner’s mother tongue. 3) The main areas of difficulty is due to interference from the mother tongue interference in learning of English, have revealed several important aspects. Undoubtedly, a new proposal for research in any area ought to make use of findings from the previous researches carried out in the specific area. Once it is accepted that mother tongue does have its effect. Then it becomes imperative to see whether errors in speech and writing of different mother tongues significantly co-relate with each other.

Sharma, Suneela (2008) conducted a study on Dialectal Influences on Spoken English in Himachal Pradesh. The major findings were: 1) The divergence in the accent of Himachali English has rendered it unintelligible on the national as well as international level. 2) A lot of introspection is required at every level of teaching. 3) The striking effects of word accent in Pahari language on the Himachali English word accent can be seen in the tendency of Himachali English speakers to put double primary stress on long words. The reason for this is the presence of the pattern of use of stress on every alternate syllable in connected speech in Pahari.

The study conducted by **Su (2001)** to investigate the transfer of sentence interpretation strategies by English speaking learners of Chinese and Chinese speaking learners of English at three levels of L2 proficiency: beginning, intermediate and advanced. The study investigated the degree to which learners at different levels of L2 proficiency rely increasingly on L2 based strategies while interpreting L2 sentences. It also addressed whether learners at successive levels of L2 proficiency rely increasingly on L2 based strategies when using their L1. The results of the study showed that both English speaking learners of Chinese and Chinese speaking learners of English do rely heavily on L1 based strategies at the beginning level but show much less reliance on L1 based strategies at the intermediate and advanced level.

A study by **Kaltenbacher (1997)** indicates that Japanese speaking learners of German use syllable length as a means for realizing stress, presumably due to the influence of L1. Crucially such adjustments to syllable length also affect intonation and rhythm, and studies on L2 rhythm since the 1990s have shown that rhythm- especially the placement, regularity, and length of intervals between stresses.

LANGUAGE EDUCATION – ITS IMPORTANCE

The acquisition of one language during childhood is a natural process; the acquisition of a second language, however, is a noteworthy achievement. Few students are able to successfully master a second language. Numerous factors contributed to this failure. A person who has spoken another language before is said to be a second language learner. He strives to learn a second language after mastering his first. But he no longer has access to the surroundings and atmosphere where he first learned his mother tongue. In the second, he looks for He looks for grammar traits that are similar to those in his native language in the second language. Other than language and social influences, several psychological elements can have an impact on Introduction of English from the Day of schooling: The study of English was introduced on the day a child entered the school. Everybody was proud of it because the study of this language

was considered a passport for employment. Thus we find that English was of great importance before the freedom of our country. But with the passage of time, some changes have taken place in its position.

Mother tongue disrupts Mother tongue interferes with effective communication. Students who lack confidence frequently use their native language rather than formal English. • Numerous students from various native languages struggle to pronounce many words properly. Some of them are "measure," "pleasure," "treasure," "support," "develop," "college," "bus," "school," and "zero." Pleasure, wealth, clever, etc. Languages change, including English. We are also capable of speaking slowly in English without the help of our native tongue. It won't happen overnight.

The importance of pronunciation in communicating cannot be disputed. Actually, it is equally as important as grammar and vocabulary. But it's obvious that mother tongues have had an impact on English. This leads to incorrect pronunciation. Pronunciation errors can result from a variety of issues. Mispronunciation may result from a lack of clarity regarding the specific form of a word or sentence or from a general lack of language proficiency. The mother tongue's influence or transfer is the most frequent cause. Errors in pronunciation are typically caused by differences between the mother tongue's sound system and English's spelling symbols.

The instructor serves as a role model for proper classroom speaking on a daily basis. During daily interactions, the teacher is supposed to introduce the students on how to pronounce words in English. The reason why students are unable to develop proper spoken English skills is because the teacher's pronunciation is skewed. Due to the improper pronunciation samples they are exposed to in their learning environment, learners are most likely to develop a comparable pronunciation skill. A further difficulty that learners face is their mother tongue's fossilised sound system, which prevents them from learning the pronunciation and sound system of a second language... It is understood that if the second language is introduced to the learners before puberty, the chances of attaining a native-like pronunciation skill is easier. This challenge can surely be met by using the mother tongue removal tool offered in good digital language lab. Words worth English Language Lab has an inbuilt facility to meet this requirement.

Place of English in India Today: "One hundred and fifty years of intimate contact has made English an integral part of our Educational system and this cannot be changed without injury to the cause of education in India. In addition, English has today become one of the major languages of the world and Indians can neglect its study only at the risk of loss to them". -Pandit Jawaharlal Nehru.

The amount of language necessary will vary at different stages of schooling and in different locations of India, according to the report of the University Service commission (1948–1949), whose chairman Radhakrishnan was. Only the mother tongue will be taught to students in grades one through five; in grades six through eight, the focus should be on both the mother tongue and the federal language; and in grades nine through twelve, English will be included to these subjects. Students will be required to study another classical or modern Indian language if their mother tongue also happens to be the federal language. This indicates that the commission supported the three-language formula, as it is now known.. The commission, underscoring the importance of English, said: "English must continue to be studied. It is a language which is rich in literature-humanistic, scientific, and technical. If under sentimental urges we should give up English we would cut ourselves off from the living stream of ever-growing knowledge... English is the only means of preventing our isolation from the world, and we will act unwisely if we allow ourselves to be enveloped in the folds of darkness. Every language is the pride of the people who own it. No doubt, English is the language of the English people. The truth is that practically every nation in the globe speaks this language. It has a significant role in India. It has

enormous importance in every area of life, including social and political, academic, cultural, and economic. As Pt. Nehru correctly said, "English is our language through historic necessity." Today, English plays a significant role in India. The bulk of the signs hanging in front of the businesses are in English, no matter where we go in the country or through the bazaars. English-language advertising boards are seen at the focal 14 points of many cities. Nearly all records in administrative offices, whether municipal, regional, or central, in theatres, hotels, and restaurants are in English.. At home, in the street, in the bazaar, in business in studies, in routine talks, English holds a good position. Even many illiterate people are heard using English words in their day-to-day routine. It is undoubtedly, right to say that English has been playing, is playing and will continue to play a significant role in India's national life. English has its unique importance in our country. It has played a very important role in building modern India. It has become one of the major languages of the world and Indians can neglect its study at their peril. It is taught and learnt with affection and love. It enjoys a privileged position. The person who studies this language of the world civilization, none should under – estimate the importance of English C. Rajagopalacharya said "English is the greatest gift of goddess Saraswathi to India.

ADVANTAGES

Being fluent in the mother tongue, which is also known as the native language, benefits the child in numerous ways. It associates him with his culture, ensures enhanced cognitive development, and supports the learning of other languages (Nishanthi, 2020).

The two schools of thinking on the importance of mother tongue proficiency in second language learning alternately refer to it as utility and interfering effect.

The majority of pupils prefer learning in their native language, and those who do so typically outperform those who learn in English (MOI)

DISADVANTAGE

The issue of interference is one that many people bring up as a serious issue. Language interference is the process through which characteristics of one language (the L1) are transferred to the target language or second language (L2).. A linguistic phenomena known as interference occurs when the traits of one language (the L1) are transmitted to the target language. Second language (L2) or language.

Many students find it difficult to grasp English grammar because of interference. Many students find it challenging to master the prosody of the English language, for example, in the field of The English language's grammar, syntactic organisation, and structures present significant learning challenges. a case of The pronunciation of English language word utterances with the tonal patter is an example of phonological interference.

CONCLUSION

The best way to deal with mother tongue interference is to educate second language learners about it so they can communicate more effectively in the target language. This includes teaching them about how it affects pronunciation, intonation, word formation and usage, grammar, idioms, and discourse structure. Each language has a unique structure, and these structures offer users a variety of meanings as well as distinct suggestions on how to utilise and create sentences. Comparing L1 and L2 at different levels to investigate and distinguish their differences and comprehend their commonalities might help prevent negative transfer and improve internalisation. According to Nation (2003) the use of L1 has a minute but significant role in language learning. Thus, the foreign language teaching field is dynamic. Additionally, studies demonstrate that pupils who keep and improve their command of their native tongue are better able to learn English. L1 greatly benefits L2 by performing the pioneering effort. It will benefit L2 learning if the student has high L1 reading comprehension, or the capacity to infer the meaning of unfamiliar words from context. Similar to how planning a piece of writing or

creating an argument in a persuasive essay can be used in L2 once L1 abilities have been mastered. Thus, the abilities developed in the mother tongue can significantly improve the communication abilities of English as a Second Language.

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MULTIDISCIPLINARY APPROACH OF RESEARCH: INDISPENSABLE SEGMENT OF SOCIAL SCIENCES

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ABSTRACT

To highlight the emerging tendencies in multidisciplinary approach of research in social sciences. The paper includes beneficial aspects and developments of multidisciplinary approach with respect to social science discipline especially to education. It has been proved valuable in many researches across disciplines. The paper is concluded with its usage in educational sector and the new trends and approaches that have been brought about under this topic.

Keywords: Multidisciplinary Approach, Research, social science, SWOT.

INTRODUCTION

Multidisciplinary Approach

The concept of multidisciplinary teamwork originated with **the Mayo brothers** at the turn of the 20th century. It is the procedure of combining different academic disciplines under one topic. These **Multidisciplinary Approaches** have been proven very beneficial over the years. A multidisciplinary approach involves drawing conclusions or approaches from multiple disciplines to explore problems outside of normal sphere and to reach conclusions based on a new understanding of complexities. It enables several researchers to cross boundaries between disciplines and achieve unique insights into their subject, as the researcher spends time working on a problem that intersects any two or more disciplines. When a particular topic is studied from the viewpoint of more than one discipline it is quite evident that results are diverse and new, and in such way only new and innovative approaches are discovered and brought into use. The Multidisciplinary Option allows students to explore the main currents of the world, acquire geographic literacy, and learn basic facts and concepts inherent in behavioral sciences and history.

Multidisciplinary Approach of Research in Social Sciences

One single discipline can be studied through the help of multiple disciplines. Likewise the discipline of social science can also be studied with integration of other disciplines like history, psychology, sociology etc. The Social Sciences have a critical contribution to make, in helping us understand, imagine and craft a more sustainable future for all. It is the science of understanding people's needs and their unique relationship with art, literature, history, music, work, philosophy, community, technology and psychology. Science is intimately integrated with the whole social structure and cultural tradition. Multidisciplinary researches can be designed, planned and executed by focusing on Retrospective studies as the researchers can get insight from similar and related studies or research in the past. Personal narratives of best practices across different disciplines can also be used, e.g. engineering and quality of life seen in senior living accommodation projects in real estate sector. Similarly, collaborative and complementary streams in health care sector e.g. yoga therapy, Allopath and Ayurveda, homeopathy, counseling and mentoring for persons with disabilities creation of knowledge hubs and clearing houses of research, accessible websites, will be a ground breaking initiative to facilitate knowledge sharing and resources in every institution or government.

Few scholars dispute that interdisciplinary research is altering the way in which researchers engage in the scientific process. Indeed, it is becoming more and more evident that major research funding agencies are increasingly focused on strengthening interdisciplinary

collaboration. Many argue that this transition is slowly beginning to change what it means to undertake research, affecting underline contemporary research programs. In areas such as cognitive neuroscience, behavioral economics or cultural studies, interdisciplinary research has emerged as a key mode of knowledge production (Bondebjerg, 2015; Callard et al., 2015). Of course, this development is variable depending on research area and research agendas with some areas more inclined towards interdisciplinary collaboration than others, but it is rare to find researchers today who have no engagement with scholars outside their own specialty. While some decry the loss of disciplinary skills and techniques, others have embraced the interdisciplinary turn and its potential for translating scientific knowledge into societal impact (Huutoniemi et al., 2010; Klein, 2010; Frodeman, 2011; Wagner et al., 2011).

The transition towards interdisciplinary collaboration is manifold. It emanates from within the scientific community as research progresses and new scientific problems emerge that are not confined to a single disciplinary perspective. It also derives from the world of politics. In numerous instances, policymakers and funding agencies call for researchers to address the grand societal challenges of globalization-led economic, ecological and demographical change (Langfeldt et al., 2012). In the last decade, numerous funding programs have been launched across the European Union and United States, which are designed to stimulate interdisciplinary collaboration. Among the most prominent examples is the European Framework Programs for Research and Innovation, Horizon 2020, with a total budget of €70.2 billion. Similar programs can be identified throughout Europe and the United States—ranging from national research and innovation strategies to the establishment of new departmental structures and interdisciplinary research centers at universities (Bozeman and Boardman, 2014).

Most of the current literature on science policy and research funding acknowledges that interdisciplinary is itself a complex phenomenon that takes place along a continuum extending from short-term collaborations with minimal levels of commitment to large-scale research programs with significant levels of interaction. One of the most crucial and contested questions in debates over interdisciplinary research is the extent to which “soft” and “hard” approaches needs to be combined. Classical examples of interdisciplinary, such as biochemistry or synthetic biology, integrate disciplinary perspectives from several fields that already share a common methodology and ontology. In contrast, more recent attempts to further interdisciplinary collaboration in fields such as obesity studies, healthy ageing or climate change need to bridge a much wider gap between disciplinary backgrounds and approaches. Obesity studies, to take one example, encompass research across genetics, metabolism, neuroscience, psychology, ethics, economics, political science and regulation, making interdisciplinary collaboration much more challenging to coordinate (Porter et al., 2007).

Many scholars and decision makers agree that most of the complex problems that face society today, from the consequences of anthropogenic climate change to personalized medicine and public health, require integration of diverse understandings (Klein, 2008; Wagner et al, 2011; McLeish and Strang, 2015). Yet, in discussions over interdisciplinary it is often unclear, if this integration of disciplinary perspectives extend only across epistemic communities that are already aligned with each other’s vocabularies, say, across the biological and medical sciences, or if interdisciplinary collaboration requires a deeper transcendence of disciplinary boundaries beyond the natural, social and human sciences. The later question takes us into the controversial territory of a number of recent debates over research funding. More particular there has been a growing concern regarding the proper role of the social sciences and humanities (SSH) in interdisciplinary research, and how the research community can ensure that policymakers and funding agencies are committed to include SSH when initiating large-scale interdisciplinary programs.

Solving complex real-world problems requires bringing together insights from multiple disciplines. But hierarchies and asymmetries continue to persist even in the face of contrasting declarations. In the next sections, I sketch the current policy framework and the major policy drivers for including SSH in interdisciplinary collaboration. After having introduced the main arguments to embed SSH research in interdisciplinary projects, the article then moves on to consider some of the key obstacles to interdisciplinary research, with a special emphasis on the different modes interdisciplinary collaboration. Rather than covering only one specific type of research, interdisciplinary is a generic and broad-scaled concept that extends across a wide range of different scientific practices and approaches, making it difficult to evaluate within a unified framework. I argue that interdisciplinary research need to include the SSH but that more effort is needed to understand the structure, motives and impact of interdisciplinary research across different scientific fields.

REVIEW OF RELATED LITERATURE

Conor (2015) has stated that researchers should be trained to become creative, critical and autonomous intellectual risk takers, pushing the boundaries of frontier research. It is essential to ensure that enough of them have the transferable modern skills demanded by an increasingly knowledge-based global economy. The skills acquired need to match the societal challenges that 21st century research will tackle. Examples of these modern skills include creativity, communication, teamwork, entrepreneurship, project management, IPR, ethics, standardization, professionalism etc.

Mocanu (2019) stated research and development activities are one of the main drivers for progress, economic growth and wellbeing in many societies. Even if the investments made in research have been questioned by some stakeholders, technological developments are needed for more science advancements in order to push forward sustainable economic development, especially in emerging economies aiming to catch up with developed countries.

Lawa (2019) suggested that social science research is a method to uncover social happenings in human societies. Through social research, new knowledge is derived to help societies progress and adapt to change. Today, the concept of social science research has become important to researchers especially for those in the social sciences. Through social research, the social world is better understood as ongoing, emerging, re-merging and newly emerging social problems are known. More so, solutions are derived through social research.

Janki, V. (2021) stated that the social sciences have a critical contribution to make, in helping us understand, imagine and craft a more sustainable future for all. Social science is the science of understanding people's needs and their unique relationship with art, literature, history, music, work, philosophy, community, technology and psychology. Science is intimately integrated with the whole social structure and cultural tradition.

Benefits of Multidisciplinary Research Approach in Education

1. Holistic Understanding

One of the benefits of a multidisciplinary approach in education is you get a more holistic understanding of the world. Rather than looking at individual departments and their subject matters separately, a multidisciplinary approach integrates parts of each department into the study programs of the other.

For example, the Nijmegen School of Management weaves Business Administration into the Economics program, and looks at Business Administration and Political Science as part of the Geography, Planning, and Environment program.

2. Different Perspectives

Have you ever been trying to solve a puzzle by yourself and have one section that totally defeats you? You stare at it for hours, but can't figure it out for the life of you. Then, one day, a friend saunters by and picks up that pivotal piece and places it perfectly. Ah, the magic of different perspectives!

A multidisciplinary approach is kind of like that. With different professors integrating subject matters, you get Dr. Cortez's perspective on organic chemistry one day, and Dr. Sahib's the next. It opens the doors to different ideas and ways of understanding.

3. Real World Approach

Multidisciplinary learning isn't just an educational philosophy—it's a tangible way of understanding the world. When you graduate, you'll be working with people from across disciplines IRL, so why should school be different? Being able to compile and collaborate with people from across the spectrum will help you function in the professional world.

4. Collaboration Skills

Hopefully, any education route you take emphasizes the importance of collaboration. However, one of the most important advantages of multidisciplinary curriculum is the idea of coming together to create a better whole.

Being able to communicate effectively with people across disciplines is integral to multidisciplinary learning. You learn the same vocabulary, you understand their values, and you know what motivates them. These skills will help you make connections, solve big problems, and work synergistically with your peers.

Challenges

- ❖ Maintaining a productive and friendly team can become difficult. Issues such as uncertainty of the team's position in the overall service, caseload, poor coordination between team members, and uneven work distribution may cause disruption.
- ❖ Practical barriers to interdisciplinary research include the difficulties of organizing meetings, developing a common language and knowledge, and understanding the task at hand. The causes of critical health problems are many and varied complicating the essential task of deciding on the focus of the group.
- ❖ Another difficulty is determining the boundaries of one's discipline. How far and in what form may one intervene in fact-checking without intruding on another researcher's domain? This is a hard process of knowledge exchange in terms of connection with persons in positions of authority and influence, and hence differs by discipline
- ❖ An abundance of information contributes to the confusion. The filtering process needs to be clear, easy to navigate, and smooth too. Learning to work together and going beyond the realms of one's own knowledge space, being flexible and open to ideas is a challenge in itself.

SUGGESTIONS

❖ SWOT Analysis

Strengths

Increase in contact with and collaboration with different disciplines will enhance the qualitative appeal of this functional arrangement; will reduce or lessen the biases in research that is unavoidable; more studies in this regard are necessary. Multidisciplinary Research involves minimum effort but with maximum impact in terms of outcomes and the entire processes involved. Planning is vital so too is communication; open and flexible communication channels are a key ingredient in this regard. In the long run, the benefits far outweigh the costs initially

incurred. With a dedicated research framework in place, it will help in enhancing the communication process much faster aided by technological advancements like cloud, drones, Artificial intelligence and more.

Weaknesses

Periodic training of all personnel is lacking and not seen as a necessity, while faculty Development programs are a part of the academic program. The groundwork is minimal far as research is concerned. Moreover, the professional approach is limited; biases and prejudices and stereotypes between academic disciplines serve to limit working together and sharing knowledge too; research in social sciences are still seen as cumbersome and a necessity for promotion and publication, rather than as a means to enhance one's learning process to be a better professional and research is still limited to just publications and as a theory paper in academia. It is not seen as a lucrative career in many ways.

Opportunities

Both Qualitative and participative research approaches have become acceptable and multiple voices can be heard; use of multiple forms of communication including technical and social media; subjective meaning of a situation, event by the participants make it a rich source for documenting and sharing knowledge; a greater scope to explore creative approaches is opened that have stood the test of time in handling problems.

Threats

The major threats includes complacency (what works in one sector may not work always; similarly the successful outcomes may not always be possible) time and financial constraints; lack of enthusiasm for research due to time consumption, sometimes unnecessary and boring works with limited remuneration; external control, administrative glitches, mismatch between capability and willingness and commitment to research; gaps in communication of information, resources, decisions and also poor access to the right information.

❖ Professional support

Creating a strong professional support team from within your university is the key to helping you address many of the challenges you will encounter in setting up a collaborative centre. This group will also be key to ensuring there is facilitation and support to bring together research groups and individuals from across disciplines (and from outside your centre) to address challenge-led research solutions.

❖ Communication of the Project

It takes care to avoid a potential "us and them" environment developing within a university if a huge amount of money is being poured into a new research centre that houses a select group of researchers and staff. Ensure your communications are frank and honest from the start, acknowledging potential tensions. Make it clear the space belongs to everyone within the university community, regardless of where their desk is located.

❖ Embracing Change

Enjoy the new and ongoing challenges that setting up and running a multidisciplinary research centre will bring. It will force you to break down the barriers that exist between academic and service areas within a university and to rethink approaches and try new ways of working.

CONCLUSION

By the views expressed above it can be concluded that multidisciplinary approach research is very effective. It brings perspectives and knowledge from different discipline that is much essential and effective for research of a particular topic. Many theories have been formed that have evidently shown results and have proved to be valuable. For this multidisciplinary research to be a success it is essential for researchers from different disciplines to be cordial and

cooperative with each other. They must be aware of the basic knowledge at least of each other's disciplines which will make this research process easier and serviceable. While Multidisciplinary researches can be confusion because of integration of many disciplines with one another, but this research method has proven to be one of the most instrumental and useful ones amongst the others.

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NAMASUDRAS MOVEMENT IN BENGAL: A HISTORICAL REVIEW**Himansu Kumar Mandal**Assistant Professor, History, Sabang Sajanikanta Mahavidyalaya, Vidyasagar University,
Lutunia, Sabang, Paschim Medinipur, West Bengal**ABSTRACT**

Namasudras are recognized as the lower caste people of East Bengal. There is much debate about the origin of the Namasudras. Namasudras are an agricultural community of East Bengal. They earned their live hood by doing agricultural work. With the help of Sri Harichand Tagore and his son Guruchand Tagore of the Matua community, the Namasudras gradually emerged as a well-organized community. They protested against the hegemony of the Hindu ritual system and the hegemony of the upper caste gentry in colonial Bengal.

Keywords: Namasudra, Guruchand, Hindu ritual, Hegemony, Matua, Harichand,

The Namasudra community was formerly known as Chandal, a term generally considered a pun. They lived outside the four-tier ritual caste system and were therefore outcasts and untouchables in the eyes of the Hindu 'high caste' community. Among the lower caste communities, the Namasudra community was a significant Dalit Hindu community in Bengal during the colonial period. The Namasudras were subjected to various forms of abuse, deprivation and discrimination by the upper caste Hindus. Also the Namasudras were variously exploited by the government and landlords. Among the underdeveloped communities of Bengal, the Namasudra community was particularly united. Namasudras started a movement against the social oppression, deprivation and discrimination of caste Hindus. Apart from Namasudra Matua, Teli, Mali, Kumbhkar, Chamar, Kapali, Kamar, Pod, Malakar etc. classes took part in this movement. They tried to protect their own interests through the movement.

The Namasudras of Bengal organized and agitated for various reasons. In 1916 CE in Dhaka and 1917 CE in Calcutta, Namasudra conferences expressed outrage that Namasudras were mostly poor peasants and labourers. They are oppressed by upper caste landlords. The religious leadership of Harichand and Guruchand Tagore was especially helpful in uniting the Namasudras. According to historian Shekhar Bandyopadhyay, upper caste Hindus and Syed Muslims had exclusive rights over land in areas dominated by Namasudras. On the other hand, the Namasudras were agriculturalists, landless farmers and labourers. It was under these conditions that the Namasudras realized the need for education and employment for economic advancement. Like the Vaishnavas, the religious guru of the Matuas, Sriguru Chand Tagore, preached the ideals of equality and the end of casteism. He also emphasizes the principle of action. Harichand Tagore asked his followers to build Hari Mandir instead of going to caste Hindu temples or ceremonies and be diligent in worship. Ignoring the Vedas, he talks about giving people a place above all. He said, "Hand, Kama, Naam, Name" is the mantra for the liberation of people. He preached to his followers to educate and earn money in order to mobilize and motivate them. Guru Chand Tagore established the 'Bengal Namasudra Association' in 1912 AD to strengthen internal unity among the Matuas. The name 'Namasudra' was legalized in place of the disrespectful name 'Chandal' in the polls of 1911 AD in compliance with the main demands of the leaders leading the Namasudra movement. In 1916 AD, the Namasudras conference organized in Dhaka and Calcutta called for the liberation of the Namasudras from the exploitation of caste-Hindu landlords in the society. Abolition of child marriage and polygamy, prevalence of widow marriage, abolition of caste system, righteous living etc. were among the programs of Namasudra movement. It has a social and organizational history long before independent India.

In the early 20th century, they were still not 'Namasudras', outside the village they lived in 'swamps' called 'Chandals', the temple doors were closed to them. However, it is the largest tribal community in East Bengal as the 'Ajlachal' sub-community. The 'Chandals' were despised and economically deprived by the upper caste Brahmin, Kayastha, landlords, mahajans. Guru Chand Tagore, said that whether we live or die, it does not harm us, we want to build schools in villages and he often said that 'Jar dal nai, tar bal nai'. All this shook the Hindu society of East Bengal. None of the social reformers envisioned his ideal of universal education. Maa Ishwar Gain of Dattadanga, Khulna presided over the Shradhana ceremony of Namasudra representatives from 18 parganas. In 1872-73, they continued the 'social boycott movement' of not working in Nakra haat, not cooking, not doing agriculture, not going to market etc. Although their movement failed, they felt the need to gain self-respect and dignity among the Namasudras. The Namasudra movement of 1911 was strengthened under the leadership of Guru Chand Tagore.

The 'All Bengal Namsudra Association' was formed in 1912 under the chairmanship of Mukunda Bihari Mallick. By 1928, it had a strong network through branches in 22 districts of Bengal. To raise funds, he used to remove a handful of rice every day before cooking and submit it to the village committee every month. The money earned from there is spent on the development of village roads, construction of schools, marriage of poor people's daughters etc. For the sake of social development, Guru Chand Tagore formed 'Namsudra Kalyan Samiti' out of a sense of responsibility. In almost every Namasudra village of Faridpur, Dhaka, Khulna, Bakerganj, the existence of the association was welcomed in meetings and gatherings. In 1908, the Bengali Provincial Congress at Pabna passed a resolution calling for an end to the discriminatory practice of the Chandals, as Guru Charan Tagore, a Namasudra patriarch, social reformer and religious leader of Faridpur, had strongly advocated the partition of Bengal, and opposed the Swadeshi movement in 1905. Sir Surendra Nath Banerjee wrote a letter to the Namasudra leader, urging him to join his millions of followers in the Swadeshi movement, known as Matua. But Gurucharan Tagore rejected his request. He said that the upper castes were consumers of luxury goods imported from abroad and therefore movement should be restricted to them. He also said that the Namasudras were oppressed and discriminated against in their own country. The upper castes, if they do not develop fraternal relations with these untouchable and depressed classes, will never participate in the Swadeshi movement.

Several memoranda were submitted on behalf of the All-Bengal Namasudras Association and the All-Bengal Depressed Classes Association. A joint delegation of these two associations gave oral evidence to the Simon Commission in 1929, and their complaints were made under the leadership of Mukunda Behari Mallick, a Namasudra. The Namasudras' memorandum states that "the upper castes virtually closed the doors of schools against members of the Depressed Classes in India during pre-British rule. According to the All-Bengal Depressed Classes Association, untouchable patients "were not admitted to medical colleges and hospitals in Calcutta for treatment," was a reality in Bengal. Raicharan Biswas wrote in his book *National Awakening* in 1921 brahmins we may dislike, but if we observe our clear have to admit that the Namasudras caste are descendants of ancient sages and rishis that is pure Brahmin. Secondly, our profession is agriculture, and agriculture is a noble profession and we can be proud of Guru Chand also campaigned against the landlords and their exploitation. In 1921, Mukund Bihari Mallik and Bhishmadev Das, both members of the Bengal Legislative Council, demanded a law that would give two-thirds of the crops to sharecroppers. This was the origin of the Tevanga movement, which was later taken over by the Bengali communists with the support of the peasants. In the Bengal Assembly elections of 1937, there were 30 reserved constituencies and 12 Namasudras won – 10 were followers of Guruchand and two represented the Congress. All of them bear the stamp of Guru Chand's personality. In the 1930s, a section of Namasudras supported British Prime Minister Ramsay Macdonald's 'Communal Award'

announced on 16 August 1932. Since then, the farmers belonging to the Namasudra community were organized under the leadership of Jogendranath Mandal, Bhirat Chandra Mandal etc. and supported the Krishok Praja Party. After the death of Harichand Tagore, Guruchand Tagore and after the death of Guruchand Tagore, Pramatha Ranjan Tagore and Jogendra Nath Mandal led the Namasudra movement. The Namasudras under the leadership of Pramatha Ranjan Tagore and Jogendra Nath Mondal decided to cooperate with the National Congress by forming the 'Independent Scheduled Caste Party' in 1938. As a result, the national movement gained special momentum. However, their movement lost momentum when the Nama-Sudra-dominated East Bengal was included in Pakistan as a result of partition in 1947.

The lower castes felt the need for agitation against the oppressive upper castes more than the benefits provided by the British government. Hindu solidarity soon realized that the isolation of the lower castes could hamper plans to offer united opposition to the British and Muslims. Later, the Sarva Bharatiya Hindu Mahasabha, Bharat Sevaram Sangh, etc. started actively mobilizing the lower castes. They never forgot the insults and hatred from the upper caste political leaders. Instead of directly protesting, they withdrew their political support and quietly sided with the Congress. Consequently, due to lack of support from the lower caste Namasudras, Rajvanshis and Poundras, the Congress had to withdraw from political power to form the government in Bengal. At the Khulna Namsudra conference in 1930, Guru Chand Tagore demanded lower caste representation in education, employment and legislative representation for backward castes. He said that 'the emancipation of the lower castes and untouchables will never be accomplished unless and until they share in political power'.

Lower castes in Bengal were unable to enter mainstream politics due to the conservatism of the upper castes, and as a result, were forced to withdraw from the Congress in the 1938 elections and later in the formation of the government of Bengal. In the 1947 elections on the eve of Partition, a large section of the Namasudras supported the Congress, but knowing that the partition of Bengal would spell doom for the nation's future, they defected to the Congress. Immediately the strong united movement of the Namasudras came to an end. Matua leader PR Thakur continued to oppose the division of Bengal despite being in the Congress, but after the Noakhali and Comilla riots he changed his opinion and started supporting the division of Bengal. Politically, the Namasudras demanded separate elections and increased representation in autonomous bodies. The British government was also sympathetic to the Namasudras. So the Namasudras also did not actively participate in the anti-British movement. .

CONCLUSION

People of other castes were considered Namasudras as Chandals and as a result they started losing their power, reputation. Even loses right to rights, property, education etc. and like other Shudras of Bengal were considered untouchables. Even during the British period, the Namasudra community chandals were considered to be. They were against it protested and started a movement against the so-called upper castes. As the demands of the Namasudras were not met in the Reform Act of 1919 AD, they gradually became pro-British and advanced to fulfill their demands. They supported the communal partition policy of 1932 AD. On the other hand, they opposed the national movement, because according to them, the national movement was a movement of the upper caste Hindu gentry.

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NATURE INVOLVEMENT & CONNECTEDNESS HAVE DEEP IMPACT IN HUMANIC INTEGRATED WELLBEING

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ABSTRACT

The constructive and pragmatic relationship with nature implies the cognitive as well as eudaimonic factors of life in a 'larger than life' manner while it plays a pivotal role in building our environmental responsibility as well as nurturing our mental well-being enormously. Engaging ourselves with natural beauty leads to a natural connectedness which positively affects the quality of life. One survey on natural activities like smelling flowers, watering plants and walking barefooted on the grass in a park etc was organised for 10 days at a stretch on 30 people (N=30) at a local level involving crowd from different age groups like children, teen agers, young stars and aged to demonstrate the idea how natural beauty, nature engagement & nature connectedness are positively associated with physical, mental as well as verbal serenity. Overall, this small study intends to focus on the factors of fundamental well-being pervasively connected with nature while enhancing the sense of a stronger bond with the environment.

Keywords: Nature connectedness, well-being, mental health, environmental responsibility, engagement.

● INTRODUCTION

Mental health has been considered as one of the major global concerns which is slowly turning to become the next pandemic. It affects many factors with close contact as well as which are indirect factors. The estimation says that 30% of the global population suffers from a mental disorder (Steel et al., 2014) with more than 264 million people affected by depression and approximately more than 284 million affected by anxiety (Global Burden of Diseases, [GBD] 2017). Many researchers in their studies have shown that complete mental health not only consists of the absence of ill-being but also, the existence of well-being both hedonic (happiness) and eudaimonic (having a meaning of survival).

The essential role that the natural environment and engagement with nature contributes in balancing the equilibrium between mental and physical well-being as well as enhancing our aesthetic sides of life, has been widely applied and established through a plethora of consistent evidence since many years. No doubt, while we talk about our integral well-being, a close association with nature as well as being present in the nature has been advanced in the discussion of a basic psychological need that must be fulfilled in order to experience a life full of whole-heartedness (Baxter & Pelletier, 2019 ; Pritchard et al., 2019). Many of the experiential studies have proved that direct and indirect relationship with nature, necessitating with nature through simple activities (i.e, sitting in a garden, smelling flowers, walking barefooted on the grass, touching the leaves, watering plants etc) [Passmore & Howell, 2014] and elevated nature-connection (psychologically, emotionally and cognitively getting related with nature; McEwan et al., 2019) are health-wise very much remunerative. Most of the world population aren't aware that the research related to these sensitive arenas have been prioritized or were considerably concerned to be experimented in order to have the miraculous outcome of the advantages of nature-connectedness.

While we meditate, we talk about the highly discussed topic of interconnectedness. It is now a very popular term, used in mediation, well-being and psychological connection. It is considerably one of the most susceptible facts to comprehend how interconnectedness changes the components of our lives to understand the gravity of well-being. The factual understanding

that we exist interdependently and in close kinship with nature and its other aspects is a beautiful concept. We interexist with the nature to a extent that it is completely unimaginable to portray boundaries. Our minds and bodies are aligned with all the possible factors of nature and its all other phenomena that everything is etched with the natural world in a very impassioned way. Our respiratory system shares a mutual connection with nature, our food-habits depict that the lion's share of our consumption comes from nature only, etc. It is one phenomenon which might be described as nature exists in us and we exist in nature. We are a micro-portion of the giant macro-portion of nature. This study has beautifully portrayed hands-on experiments on how in-depth nature association is related to mindfulness practice, to enhance well-being and inculcate insight into self- realisation as well as living into the present moment with all our attention centralised to feel and experience etc.

- **Our Connection and Mindfulness with Nature:**

Humans since their revelation of their senses have been interdependently connected to nature. The pacifying, energizing yet empowering role of nature can be easily fathomed through the penetration of natural layers on our skin as we get to spend time in nature. This is actually a very common experience to the majority of the people irrespective of their religion, cultural practice, ritual performances and of whether they practice meditation or not. Meditative awareness through the connectedness of nature can be a very useful tool to promote mental as well as psychological well-being which further will enhance the naive, balancing and sustainable qualities in us. It also elevates our reason to be very mindful towards environmental nurturing. This aspect could be overwhelmingly acceptable to many religious and spiritual contemplation, for example in Buddhism, the eight century Buddhist saint Shatideva in his book "Guide to the Bodhisattva Way of Life" mentioned the larger than life factors of nature's magnificence on human minds. Nature must be very applicable to flourish the ways of mindful awareness. Some of the techniques allow certain qualities of nature to guide us the helpfulness of mindfulness and meditation in a natural way. Our posture while meditating near a countryside view, or a mountainous scenery and the way we close our eyes and open without having the limited focus on a particular object, absolutely immerse us into the relaxation of the environment. This meditative method helps to expand our perspectives as well as get an insightful cultivation of nature in our mind.

The authentic sources from ancient vedas have suggested for us to get three types of baths every day to get our astounding health results which includes 'sound bath', 'water bath' and 'air bath'. For example, when we are strolling through the forest, we get to experience the wind blowing through the trees, birds chirping and the rivers flowing gently to soothe our mind. We get a plethora of opportunities to complete those three meditative bathes and acquire a soothing way of living. Through this mindfulness coming from nature, we get into deeper emotions as well as the heart gets enough reasons to follow the harmony of nature. We become aware of ourselves as well as of nature.

Active and reverent awareness through the mind can foster a deeper understanding for the meanings behind the reasons of natural orders, settlement of nature's creations, exploring the signs, symptoms, symbols and attunement of nature. It simultaneously increases our natural connectedness and makes us more faithful towards the perseverance of the environment and its grandeur offering to us. Compassion is another point that is interrelated with all of these factors.

Thinking humans apart from nature would be a futile idea if we take humans as a different pursuit from the pursuit of nature. Furthermore, it is very difficult to define one place as 'natural' and another one as 'artificial' because humans make one place with the materials they work with, which are ultimately obtained from nature. Mindfulness with nature not only improves the condition of our body, mind and environment but also investigates and extracts wisdom from natural occurrences.

● **METHOD:**

1) Participants

The sample consists of 30 respondents. Males were 14 (47.7%) and females were 16 (53.3%); ages ranged from 8 to 55+, with 51% of respondents between the ages of 25 and 54 years, and 41% of respondents over the age of 55 years, 8% were between 8 to 24 years were in the sample. Fieldwork was undertaken between 21st September to 30th September, 2022. The survey was carried out offline.

2) Measures of Dependent Variables: (Well-being, ill-being, general physical health)

The survey assessed the factors of emotional well-being, emotional ill-being and general physical health with several items. These factors are commonly used to measure other psychological well-being by the researchers of positive psychology. Here in this study, hedonic well-being is referred to as "In general, do you feel happy?" eudaimonic well-being refers to "To what extent do you feel that the things you do in your life are worth doing?". Respondents have a scale ranging from '0' to '10' to give their ratings while '0' refers to the descending order and '10' is the most ascending number. Many of the researchers have worked on this correlation with those respective multi-item scales of happiness and meaning in life; for example, Abdel-Khalek in 2006, Cheung- Lucas in 2014, Oishi- Diener in 2013, Steger-Kashdan in 2013 etc.

3) Measures of Predictor Variables (Nature Connectedness, Time in Nature, Engagement with Nature Through Simple Activities, Indirect Engagement with Nature, Knowledge and Study of Nature) :

- **Nature Connectedness:** The inclination towards nature in self scale is the parameter given to the respondents to have the assessment of nature connectedness. Given 5 diagrams, they had to choose one which went better with their 'self' and 'nature'.
- **Time in Nature:** This factor was referred to as 'How many days in a week, do you spend more than one hour in nature?'. Response scales ranged from 1 to 5 to have a better understanding of their time spent in nature.
- **Engagement with Nature through Simple Activities:** Activities like sitting in the garden, watching animals, listening to birds chirping, gardening, smelling flowers etc are the activities that increase our association with nature. A scale ranging from 1 to 5 was given to the respondents to understand their activities with '1' as 'never' and '5' as most often.

Indirect Engagement with Nature: Listening to the radio programs related to the environment, watching tv shows related to nature, discussing nature or wildlife more often are some factors of indirect engagement with nature. From a scale ranging from 1 to 5 was the ultimate numbering to understand the psychology of the respondents if they would understand nature.

- **Knowledge and Study of Nature:**

Two items including one assessing knowledge like 'I know a lot about the natural elements(including many organisms)' and another one assessing behavioural aspects of studying nature (studied nature through equipment) were experimented through the scale ranging from 1 to 5. For 1st case, 1 indicates 'strongly disagree' & 5 as 'strongly agree' and for 2nd case, 1 indicates 'never' and 5 as 'often'.

Result: Sample size had provided an adequate number of individuals giving response to the positive sides of the numbers. Almost 80% of individuals feel euphoric in connection with nature. 10% are proven to be unaware of the facts of nature and another 10% don't get enough time to explore their inner-selves into nature.

- **How Does Nature Impact Our Well-being?**

Nature Heals: Nature played an unimaginably impeccable role in our mental health during Covid-19. One survey in Uk revealed that nearly half of the population in Uk have been relieved while visiting parks, walking on green meadows throughout the entire pandemic.

Quality Time Spent in Nature Strengthens Bonding with Nature: 'Fresh air and exercise' has had a deep impact on our mind ever since. It introduces us with 'connectedness' in such a way where we can feel nature is not an external part anymore. Also, the strong connection with nature makes us understand the values and morals of emotional and close relationships with anyone. Our close attachment to our natural surroundings is the reason for our well-being.

Proximity to High Quality Nature is Something More Important: People in urban areas have been found to be less likely to spend very little time in proximity with nature than the people in rural areas. Urban people more often complain about getting very little time to spend in gardens and getting connected with nature than rural residents. Even young people confess about facing barriers to connect with nature as well as the people with disabilities seem to face a few barriers to getting access to nature on a large note.

All the barriers which lead to less access to nature are causing great health deplorability as well as mental breakdown to lean on.

To remove all these barriers, many cities are taking initiatives to build high quality green parks with feasible accessibility of having mind-energizers. Even a few roads are built with tall trees on both sides, making them defined as 'green corridors'. These are great examples of human development and harmony building in connection with nature.

CONCLUSION

The limitations which our current study revealed as a result are leaving important messages with significant factors related to well-being. Taking out time for nature is not about time or about minutes. It's simply about moments. The moments we feel connected and closely associated with natural activities. Experiments proved that almost most of the people felt very energized while spending some little time around nature and even doing a few small activities. It is a hands-on evidence of psychological transformation through regeneration of positive emotions and feelings.

Results of the study also emphasize on having a change in governmental policies in order to have a positive impact towards building more natural spaces where people can spend more time in the vicinity of nature and feel attached with the environment through reverent eyes. City planners and developers can invest in urban parks to ensure nature proximity to all the residents and having 'green corridors' to be built etc.

Our broken relationship with nature is one of the topmost root causes of our intolerant behaviour, stressful lifestyle, ever-increasing frustration, mental health deplorability and non-human inhabitants. Noticing nature, engaging ourselves more with nature's association, gazing at stars, flowers, plants, animals, birds etc and practicing mindfulness through meditation nearby a greenery can be utterly beneficial for those who lack the key components of life. A sustainable life is not far if we have nature 'hand-in-hand' with us.

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OCCUPATIONAL CHOICES OF WOMEN WORKING IN URBAN INFORMAL SECTOR IN INDIA: AN EMPIRICAL STUDY

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ABSTRACT

Education is crucial for empowering women in the labour market. However, the choice of occupation may not always necessarily be determined by their level of education. There are certain other factors that become more important in making women to choose a particular occupation over others, like the number of dependents in the family, whether a woman is staying with family or not, the channels through which she got the work, and others. Using data from a primary survey of working women in the urban informal sector in three states of India: Rajasthan, Haryana and Delhi, this paper argues that education alone cannot make a woman to get better occupation, within the informal sector. The other factors mentioned above play a relatively more important role in determining the choice of occupation a woman does, and these factors derive down the occupational status of woman within the informal sector.

Keywords: Education; occupational choices, networks, informal sector

JEL Codes: I26; J24; D89; J46

1. INTRODUCTION

Informal sector, in any economy is the major source of employment for both men and women. In India, in percentage terms, a slightly higher proportion of women are employed in informal sector compared to men (Chakraborty, 2020a). This is because informal sector provides the flexibility in the working hours and the location advantages that women require to incorporate market work into their family work, as well as into the social norms that majorly regulate women's economic participation (Kantoor, 2002). Women are employed in all kinds of work in informal sector, like domestic workers, street vendors, factory workers and others. These kinds of work are either unskilled or are semi-skilled work. Only a few of them require some specialized skill set. Education, which is commonly used as an indicator for reflecting women empowerment, may not necessarily enhance economic participation of women within a household (Jayaweera, 1997), and in the overall informal sector employment. There could be other compelling factors that make women to choose a particular occupation over other, despite being formally educated. The presence and age-sex composition of children in the household are always important correlates in deciding women's choice of participation in the labour market and her choice of occupation (Manning and Petrongolo 2008). In this paper, we explore some other factors, like number of dependents in the family, whether the woman stays with her family or not, migration status, and help taken from friends and relatives to get the work. In this paper, we try to unfold these factors using the data from the primary survey that we conducted in three states of India: Delhi, Rajasthan and Haryana.

The work – family and the family – work conflict for women is not new (Brough and Kelling, 2002). Because childrearing and household care are traditionally women's work, women either do not participate in the labour market, or if participate, they end up doing the work which require less of their time and effort, to manage their household chores. There is also a stigma against women working outside home (Goldin, 1990). However, there can be a counter

argument, which says that the needs of the dependents in the family may force women to join the labour force, as they may be the sole bread earners or may provide a supplement to the male income in the household (Agarwal, 1989). In which direction the effect of number of dependents will go is an empirical question. Similarly, distress migration may make people, both men and women, to end up in the low lying occupations, just to survive in an alien city (Mandar and Sahgal, 2010). In addition, informal sector is characterized by low productive activities, having considerable overlaps with poverty and slum dwelling (Mitra, 2005). Information about work usually spreads with a word of mouth and the coping strategies available to the families in this sector work through their informal institutions and networks (Mitra, 2020). Thus, these other factors can play important role in characterizing the choice of occupation of woman in the informal sector. In this paper, we try to investigate if it is education or these other factors that play an important role in the occupational choice of women. Thus, the present study seeks to answer the following research questions-

RQ 1: Does education helps in determining occupational choices of women working in the informal sector?

RQ 2: How do factors like number of dependents in the family, woman staying with family, migration status of a woman and the use of networks in the job-search process, affect the occupational choice of women working in the informal sector?

We did this by conducting a primary survey among working women in the urban informal sector of three states of India: Delhi, Haryana and Rajasthan. The main results of our paper shows that though educated, women take up jobs as per the constraints they face, both within their households and from the community in general, and hence end up in occupations which may not match to their education levels, and are usually lower than it. The paper is divided into 7 sections. Section 2 provides brief literature on determinants of occupational choice of women in general and in the urban informal sector in particular. Section 3 describes the data collection procedures and also presents descriptive statistics. Section 4 gives brief about the empirical strategy used in the study and Section 5 represents the estimation of results. Section 6 concludes the study with its results. Policy implications and limitations of the study are presented in Section 7.

2. LITERATURE REVIEW

Informal sector in India gives employment to a slightly higher proportion of women compared to men (Chakraborty, 2020a). Given the lower skill set of women, they can have a choice in deciding the type of work they can do. However, this choice is restricted by various gender constraints imposed on them. Kantor (2002) has characterized these constraints into women intensive constraints and women exclusive constraints. Women intensive constraints are related to differential access to productive resources. Women exclusive constraints are related to three main factors: their limited mobility due to the constraints imposed on women on account of their cultural, religion, age, caste and class; their more demanding role in the household chores, as women are the primary care giver within a household; and the constraints related to gendered division of labour in productive work. These constraints limit women's mobility on account of space, time, economic and occupational choices. As a result, women may end up in low paying low-skilled jobs.

A similar argument goes with whether a women is staying within a joint family or not, especially the presence of mother-in-law in the household (for married women). Morrill and Morrill (2013) explained the model of Fernandez et al. (2004), which distinguishes between "preference channel" and "technology channel" which makes a woman to work or not. Both the channels signify that if mother-in-law in the family is working, the chances of daughter-in-law to work increases. This could be due to assortative matching as well. As a result, a woman may

choose not just to work outside home, but also to opt for better occupations, even if they demand more time. However, there could be a counter argument that if a mother-in-law is not working, she may hold more traditional gender role attitudes and hence result is the daughter-in-law not to work, or if working, then to work for fewer hours outside home (Arcarons, 2020). As a result, even if women are educated, it may not guarantee better work to them as they may voluntarily opt out of either taking better occupations or completely out of labour force (Sabic-El-Rayess, 2019).

In addition, women's struggle to survive in the urban sector, motivate them to take up some work to contribute to their household income (Khan and Khan, 2009). And hence, get into whatever work they get. Hartog and Theevwes (1986) opined that younger women are more concerned with participation decision while relatively older women are more concerned number of hours to be spent on work, signifying that over time, the constraints women face in work-family conflict become more prominent than their freedom to choose the type of work.

A related factor that affects the occupational choice of women in the urban informal sector is their migration status. Migration in the standard Harris-Todaro Model is the result of the significant rural-urban wage gap. Informal sector is thus seen as the house of the failed aspirants to the formal sector dream (Ray, 1998). If people are migrating due to distress situation, they end up in lower level of occupations (demeaning or vulnerable), as an option of last resort to their survival chances (Mander and Sahgal, 2010). Thus, even if a woman in the urban informal sector is educated or skilled, she may end up in an occupation which may not be her own choice.

With migration, comes the role of social networks. Granovetter (1973) discusses the role of interpersonal ties on a range of phenomena and distinguishes between "weak", "strong" and "absent" ties. The idea is that the stronger the tie between two individuals, the more similar they are. Applying these concepts to labour markets, Granovetter suggests that those to whom one is weakly tied are more likely to have access to information different from what one would have and hence weak ties are an important resource in making occupational decisions. The major asset of migrants is the social networks – of kinship, caste and geography, which facilitate and enable the process of getting the occupation (Mander and Sahgal, 2010). Depending upon the information received from the networks, quality of those networks, and their use could channel individuals to lower level occupations (or jobs), restricting their chances of upward occupational mobility (Munshi and Rosenzweig, 2006; Munshi and Rosenzweig, 2016). Moreover, women are constrained to work in the neighbourhood of their residence, and their residence is decided by the male family members (Parven, 2014; Mitra, 2020). Thus, in the hope of just getting some work, women use their social networks, even if they end up in lower level of occupations.

Given this background, the present study aims to examine the determinants of occupational choices that a women working in the urban informal sector makes. The study tries to examine that a woman does not really have a choice, but have to work in the occupation that she gets. This is like an option of last resort which she does out of distress situation. Our paper is different from earlier literature on four accounts: one, our study specifically focuses on working women in urban informal sector, when other studies have focused on either all women (irrespective of working or non-working) or focused on women in both formal and informal sectors. This has substantial policy implications, as it allows us to dig out specific problems related to the choice of work of working women in urban informal sector. Two, our paper tries to determine how the type of work women is doing not related to her education level. This has implications for policy formulation, especially when it comes to the debate on whether providing education or skills, which is relatively more important for improving the status of women. Three, we highlight four indicators which signal distress situation of a woman and which restrict her choices in labour market. These are migration status, number of dependents in

the family, whether a woman staying with family or not and the type of network used for finding work. Given these indicators we try to answer that women really doesn't have a choice in deciding what occupation to go for. Four, our paper focuses on three north Indian states: Rajasthan Haryana and Delhi-NCR, which are comparable as per their Gross State Domestic Product (GSDP), 2018-19.

3. DATA AND DESCRIPTIVE STATISTICS

The data was examined through a primary survey that we collected under the project titled: "Understanding Dynamics of Women Workforce in Urban Informal Sector: Evidence from North India". The survey was conducted among working women in the urban informal sector of three northern states of India: Rajasthan, Haryana and National Capital Region of Delhi (hereafter referred as Delhi-NCR). A structured questionnaire was administered to get the requisite information. Data was collected from December, 2021 to March, 2022. This was the period in India when lockdown restrictions were almost completely lifted and the market operations were assuming normalcy. We steered a face to face primary survey in a traditional pen and paper style to collect data from women worker in informal sector. The survey was conducted with 585 respondents. After editing, 476 responses were considered suitable and used in this study. 109 responses were rejected which were inaccurate, incomplete or insincerely responded to.

Apart from personal information of the respondent, the questionnaire has various modules on: occupational details, working and health conditions of women, insurance schemes, discrimination or harassment faced by women at workplace, and domestic violence. In this paper, we make use of the special module in the questionnaire on the type of work that the women are doing. The main variables of interest for this paper are the type of occupation that the woman is employed in, and the variables that determine the type of work that they do, like her education level, marital status, state of residence, her caste and religious group. Apart from these variables, we believe that there other variables as well that can affect woman's choice of occupation. We try to explain those variables as well in the paper. Table 1 provides the summary statistics of the data.

Table 1: Descriptive Statistics

Categories	In percentage terms
Occupation	
Cleaners	23.53
Household Maid	37.82
Others [#]	38.66
Total	100
Education	
Illiterate	20.59
Primary	48.95
Secondary	22.06
Above Secondary	8.4
Total	100
Marital Status	
Unmarried	48.11
Married	51.89
Total	100

Religion	
Hindu	63.66
Muslims	14.71
Sikh	9.45
Others	12.18
Total	100
Social Groups	
Forward Castes	24.37
Non-forward castes	75.63
Total	100
State	
Delhi	31.30
Haryana	39.08
Rajasthan	29.62
Total	100
Migration Status	
Migrated	67.02
Non-Migrated	32.98
Total	100
Staying with family	
Yes	87.37
No	12.61
Total	100
Networks	
Friends	32.77
Neighbours	13.45
Family	40.55
Self	13.24
Total	100
Average Age (in years)	36.57 (10.64)
Number of Dependents	1.67 (2.03)
Number of Observations	476

Source: Authors' calculations based on survey data. SD is parentheses.

Table 1 gives the descriptive statistics and the details of the variables that are used in the analysis. Women that we have surveyed were employed in a variety of occupations, like being a household maid, street vendor, presswali (ironing clothes work), construction workers, beauty parlours, sales women (both in shops and door-to-door selling items), washers, cleaners, sweepers, cooks, and others. For some of these categories, the number of observations were way too less to do any meaningful analysis. Thus, we club them into three broad categories. One, washers, cleaners, sweepers and other related activities, which are usually considered as unclean and low level jobs; two, household maid (which was indeed the biggest in our sample); and three, all other types of work, which includes sales women, women working at beauty parlours,

cooks, and others, which are usually better than the work of cleaner or household maid. In our sample, 23.53 percent of women were employed as washers, cleaners and sweepers; 37.82 percent were employed as household maids, and the rest 38.66 percent were involved other types of informal work, like working as sales woman, working in beauty parlours and others mentioned above.

Majority women in the sample are up to primary level educated. Only 8.4 percent of women in the sample are above secondary passed. In our sample, 51.89 percent of women were married. 63.66 percent of women were Hindus, 14.71 percent were Muslims and the rest belong to other religions, like Sikh, Christianity, Jainism and others. For the analysis, we have clubbed Muslims and all other religion into one group, as Hindus were making the biggest chunk. As far as social groups are concerned, we find that around a quarter of the sample did not know their caste group. Given that caste plays an important role in determining the type of work the person is employed in, even in the contemporary Indian society, this does little astonish us as well. Thus, for the analysis, we divide all the individuals into forward castes and non-forward castes. Forward castes include the upper caste individuals. And the rest are included in the non-forward castes. In our sample, 24.37 percent of women are from forward castes. Since the survey was conducted in the three states of India, 31.30 percent of the sample comes from Delhi, 39.08 percent from Haryana and 29.62 percent from Rajasthan. Education level of the women, her marital status, her caste and religion and her state of residence make the main variables of interest that affect the choice of occupation by any woman. However, we believe that there are certain other variables that motivate or force women to do certain type of occupations. These are migration status, number of dependents in a family, whether women staying with the family, and the source through which she got the work, essentially the help taken from her networks in finding the work. 67.02 percent of the women in the sample are migrated from some other state; 87.37 percent of women in the sample are staying with their families; and on an average, there are two dependents for every woman in the sample. The role of friends, family and neighbours in getting work cannot be undermined. Around 86 percent of the work obtained is through some network. Only 13.24 percent of the working women are engaged in the work which they obtained by searching themselves.

Table 2 gives the details of the type of occupation with respect to the variables which can affect the choice of occupation by a woman. The first panel of Table 2 shows that with respect to education, a significantly higher proportion of women who are above secondary level educated are employed in low level occupations like washers and cleaners, while those who are illiterate, a significantly higher proportion are employed in clean jobs like cooks, sales women or at beauty parlours. This is quite surprising as education can help women to attain better type of work. However, this is not the case in the sample we have in hand. We tried to explore reasons for this in our paper and we find that women are doing the type of work in which they are employed out of distress situation and not really out of their choice or as per their education standards. The descriptive statistics given in Table 2, Panel B indicate the same. It gives the percentage of women employed in the three types of occupations by the variables that can be taken as proxy variables, which may signal distress situation for a woman to choose a relatively lower level of work, even if she is secondary or above secondary level educated.

A significantly higher proportion of migrated women are employed in lower level of occupations like cleaners and washers compared to the women who are natives of the urban areas under the study. This signals that the woman who are migrated, get employed in whatever work they get to earn a living, irrespective of their level of education. Probably just getting some form of employment immediately, can be their primary motive of these women than finding the right type of occupation. The second factor that can affect the choice of work that women do is whether they stay with their families or not. The work of cleaners, washers and

household maids are the type of work which require relatively less time on the job. Usually these people work during the morning time and get back to their homes after work. However, the work of sales women or beauty parlour is a full day work. These occupations demand more time of women and hence, when women are staying with their families, they can get help in domestic chores from their family members (usually some other lady in the house) and hence, women working in such occupations can spend more time outside house. The choice of occupation by women is affected by how much time she can devote to the household chores and how much she can devote outside home. In our sample, we find that women who are staying with their families, significantly higher proportion of them are employed in occupations like sales women, beauty parlour and other similar work. Thus, even if a woman is secondary level educated, she may choose a lower level of occupation, just to devote more time for her own household chores. Similar explanation goes for the average number of dependents in the family. If there is more number of dependents in the family, the woman has to spend more time at home, and hence will choose an occupation which requires her to spend less time outside home. In our sample as well, we find that the women employed in the category of washers and cleaners have on an average a significantly more number of dependents than the women employed in the category of sales work and beauty parlours.

The women in the study are all employed in the informal sector, the information about which usually spread with a word of mouth. There is no official announcement of hiring process for informal sector jobs. Hence, when a person looks for any work in informal sector, the information usually spreads through friends, family members, relatives, neighbours, and other weak ties. In our survey, we asked women how they got their current work. Though majority got the work through some connection, those who got the work through their friends and family members are significantly less likely to be employed in low level occupations like cleaners and washers. However, if they have got the work through their neighbours, they are more likely to get employed in low level work. This is quite expected. People, who belong to same community, usually get connected with each other faster and stay near to each other. Since in India, occupations are mostly related to community to which people belong to, people get employed in similar level work if they are staying together. If family members or other relatives and friends are staying at distant places, it's the neighbours who become the source of first hand information for getting into any kind of informal sector work. Thus, irrespective of what the level of education is, women may get employed (just to get employed and to get employed faster) in the work they get through their networks, even if that is of lower level compared to what they could have got given their education levels. To understand these in details, in the next section, we run regression analysis.

Table 2: Occupation and its determinants

	Cleaners	HH_Maids	Other Occupations
Panel A			
Education (%)			
Illiterate	4.08	39.8	56.12
Primary	35.19	39.91	24.89
Secondary	0	38.1	61.9
Above_secondary	65	20	15
Panel B			
Migration Status (%)			
Not migrated	0	23.57	76.43
Migrated	35.11	44.83	20.06
Staying with Family (%)			
No	70	28.33	1.67
Yes	16.83	39.18	43.99
Average number of dependents			
	2.13 (3.54)	2.02 (1.28)	1.06 (0.92)
Use of Networks (%)			
Friends	16.03	44.23	39.74
Neighbours	62.5	37.5	0
Family	13.47	35.23	51.3
Self	33.33	30.16	36.51

Source: Authors' calculations based on survey data. SD is parentheses.

4. EMPIRICAL METHODOLOGY

To estimate the extent of various determinants that affect the occupation choices of working women in the urban informal sector, we run an ordered probit model, where the dependent variable takes values equal to 1, 2 and 3, respectively for the three occupation categories: cleaners, household maids and other occupations, in the order of increasing rank. The main explanatory variable is education level of the woman. Following is the estimation equation:

$$\text{Occupation}_i = \beta_1 + \beta_2 * \text{EducationLevel}_i + \mathbf{Z}_i\beta'_3 + \beta_4 X_i + \varepsilon_i \quad (1)$$

In the Probit model, the inverse standard normal distribution of the probability is modeled as a linear combination of the predictors. Thus, we are interested in understanding the marginal effects of the right hand side variables. The main variable of interest is education level of the woman. The marginal effects pertaining to β_2 captures the change in the probability of a woman employed in a particular occupation category with respect to when her education level changes from say primary to secondary.

$\mathbf{Z}_i$ is a vector of control variables, which includes, state dummies, age, marital status, and her religion and caste categories. We included that in the model because occupational choices by women is not just affected by her education level, but is also influenced by her age, marital status, her religion and caste. Since the survey was conducted in three states, it could be the case that the women in different states have different probabilities of getting employed in different occupations.

X_i are the set of variables that we have included in the model one by one to show the distress situation of woman and how they affect their occupation choices. These are their migration status, whether they are staying with the family, number of dependents in the family and the type of network they use to get the work. Thus, we ran five different models. Model I is the basic model, which is represented by Equation (1). In Model II, we added migration status of a woman as one of the indicators of choice of occupation. In Model III, we added dummy variable indicating whether a woman is staying with the family or not. In Model IV, number of dependents in the family is added. In Model V, various networks that a woman has used to find her current work is added as one of the variables that can affect her choice of occupation.

5. EMPIRICAL RESULTS

We estimate ordered probit model, hence we are interested in marginal effects. The results are shown in Table 3. We have estimated five models. In all the models, we find that education variable is significant and the probability of a woman employed in better occupations (which are relatively cleaner in nature) is significantly less when she is not just literate, but at least primary passed, compared to the case when she is illiterate. This shows that with rising education levels, women get employed in relatively lower level of work. However, it does not mean that education is not useful for women. What it implies is that education alone may not ensure good occupation to women. There could be other factors that are at play. One of these factors is the marital status of a woman. Probability of a married woman getting employed in lower level work like cleaners and washers is significantly more compared to an unmarried woman. This is quite expected as married women might not be able to devote much time as is required by the sales women or working at beauty parlors.

The second variable is staying with family. If a woman is staying with her family, her probability of getting employed in better occupations (cleaner work) is significantly more compared to being employed as cleaners and washers, than when she is staying alone. This signifies that family support is crucial in determining the type of work woman chooses to be employed in the urban informal sector. Another factor that can affect the choice of work is the migration status. If the woman is migrated, she will first try to get employed in whatever work she gets. She may be more worried about earning a livelihood in the alien urban environment, rather than thinking about getting an occupation which can match to her education or skills. Thus, what we find that migrated woman have a higher probability of getting employed in lower level works like cleaners and household maids. If there are more dependents in a family that a woman has to look after she would prefer to spend less time outside home, which may not be possible for her if she is working as a sales women or at beauty parlors or at some higher level work. She may prefer to work for less number of hours, even if that work is of lower level. Thus, our results show that as number of dependents increases, the woman's probability of getting employed in lower level occupations increases. These results are in sync with the changing nature of age variable. In Model I and Model II, age variable was showing that as a woman grow older, her probability of getting employed in higher level occupations increases. However, in Model III and Model IV, wherein we have added other variables that can affect the choice of work of a woman, the age variable changes its sign, signifying that as a woman grow older, her probability of getting employed in higher level occupations decreases. This shows that with age, other household responsibilities make woman to choose lower level of occupations, which require less time outside house. Thus, along with age, these other factors are crucial in determining the type of occupation woman is employed in. Our result is consistent with Illahi and Grimard (2000) who have concluded that age of the woman has concave relationship with time spent in work. Time spent in work rises, reaches a maximum, the falls again with age.

As mentioned earlier, if a woman gets her work through someone in her neighborhood, her chances of getting employed in lower level work like cleaners and washers is significantly more than when she uses her own means of finding a work. Neighborhood effects play a crucial role in determining the type of work woman is getting in our sample.

Table 3: Marginal Effects for Type of Work

VARIABLES	Model 1			Model 2			Model 3			Model 4			Model 5		
	Pr(Cleaners)	Pr(HH Maids)	Pr(Other Corp.)	Pr(Cleaners)	Pr(HH Maids)	Pr(Other Corp.)	Pr(Cleaners)	Pr(HH Maids)	Pr(Other Corp.)	Pr(Cleaners)	Pr(HH Maids)	Pr(Other Corp.)	Pr(Cleaners)	Pr(HH Maids)	Pr(Other Corp.)
Education															
Primary	0.212*** (0.038)	0.0449*** (0.04)	-0.029*** (0.040)	0.199*** (0.031)	0.0177 (0.011)	-0.217*** (0.032)	0.214*** (0.027)	0.101*** (0.027)	-0.375*** (0.048)	0.212*** (0.025)	0.115*** (0.033)	-0.369*** (0.049)	0.179*** (0.033)	0.109*** (0.033)	-0.254*** (0.049)
Secondary	0.00123 (0.044)	0.000219 (0.003)	-0.00145 (0.012)	0.0455 (0.037)	0.00404 (0.004)	-0.0496 (0.041)	0.214*** (0.039)	0.0785*** (0.036)	-0.292*** (0.040)	0.210*** (0.033)	0.115*** (0.032)	-0.325*** (0.039)	0.199*** (0.036)	0.119*** (0.034)	-0.215*** (0.049)
Above Secondary	0.460*** (0.062)	0.0815*** (0.029)	-0.542*** (0.075)	0.294*** (0.028)	0.0261 (0.018)	-0.520*** (0.065)	0.251*** (0.041)	0.0921*** (0.025)	-0.343*** (0.058)	0.229*** (0.025)	0.125*** (0.030)	-0.353*** (0.037)	0.195*** (0.032)	0.119*** (0.031)	-0.313*** (0.037)
Age	-0.00229 (0.001)	-0.000407 (0.000)	0.00270* (0.002)	-0.00322** (0.001)	-0.000286 (0.000)	0.00350** (0.001)	0.00214* (0.001)	0.000785* (0.002)	-0.00292* (0.002)	0.00417*** (0.001)	0.00227*** (0.001)	-0.00644*** (0.002)	0.00191 (0.001)	0.00116 (0.001)	-0.00307 (0.002)
Married	0.119*** (0.029)	0.0282*** (0.010)	-0.187*** (0.024)	0.0771*** (0.007)	0.00685 (0.006)	-0.0839*** (0.030)	0.222*** (0.029)	0.0816*** (0.022)	-0.304*** (0.045)	0.164*** (0.029)	0.0892*** (0.025)	-0.253*** (0.047)	0.171*** (0.025)	0.103*** (0.024)	-0.174*** (0.045)
Hands	0.00187 (0.020)	0.000333 (0.005)	-0.00220 (0.012)	-0.00193 (0.018)	-0.000171 (0.002)	0.00230 (0.011)	0.0274 (0.022)	0.0101 (0.008)	-0.0375 (0.029)	0.0202 (0.030)	0.0130 (0.023)	-0.0312 (0.018)	0.0252 (0.015)	0.0152 (0.011)	-0.0404 (0.029)
Forward caste	-0.0415 (0.033)	-0.00739 (0.006)	0.0489 (0.038)	-0.0326 (0.029)	-0.00290 (0.003)	0.0335 (0.031)	-0.0802*** (0.028)	-0.0294*** (0.012)	0.110*** (0.037)	-0.0273 (0.025)	-0.0149 (0.012)	0.0423 (0.040)	-0.0356 (0.024)	-0.0215 (0.016)	0.0271 (0.039)
State Dummies:															
Haryana	-0.105*** (0.033)	-0.0187*** (0.007)	0.124*** (0.037)	-0.0224 (0.032)	-0.00199 (0.003)	0.0244 (0.034)	-0.0104 (0.023)	-0.00382 (0.009)	0.0143 (0.034)	-0.0445* (0.024)	-0.0243** (0.012)	0.0685* (0.036)	-0.0439** (0.022)	-0.0266** (0.013)	0.0705** (0.025)
Rajasthan	0.0549 (0.039)	0.00621 (0.007)	-0.0411 (0.045)	0.124*** (0.035)	0.0119 (0.009)	-0.146*** (0.041)	0.0935*** (0.036)	0.0345*** (0.013)	-0.128*** (0.037)	0.0652*** (0.024)	0.0345** (0.016)	-0.097*** (0.039)	0.0657*** (0.026)	0.0297*** (0.013)	-0.105*** (0.042)
Migrated	0.323*** (0.022)	0.0092 (0.018)	0.0292 (0.027)	0.0392 (0.018)	-0.0292 (0.027)	-0.355*** (0.031)	0.147*** (0.031)	0.0339*** (0.010)	-0.201*** (0.036)	0.114*** (0.026)	0.0624*** (0.012)	-0.177*** (0.034)	0.157*** (0.031)	0.0953*** (0.019)	-0.253*** (0.044)
Staying with family							-0.499*** (0.038)	-0.183*** (0.033)	0.683*** (0.102)	-0.509*** (0.049)	-0.275*** (0.086)	0.737*** (0.061)	-0.443*** (0.064)	-0.268*** (0.110)	0.711*** (0.110)
No of dependents										0.0363*** (0.005)	0.0195*** (0.005)	-0.0561*** (0.009)	0.0187*** (0.006)	0.0101*** (0.004)	-0.0245*** (0.010)
Type of network used															
Friends													-0.0463 (0.040)	-0.0230 (0.024)	0.0745 (0.049)
Neighbours													0.160*** (0.035)	0.0969*** (0.027)	-0.257*** (0.027)
Family													0.0852 (0.033)	0.00920 (0.021)	-0.0244 (0.034)
Observations	476	476	476	476	476	476	476	476	476	476	476	476	476	476	476

Source: Authors' calculations based on survey data. Standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1

6. CONCLUDING REMARKS

One of the ways in which women can enjoy greater empowerment is through being employed in cleaner occupations. However, if a woman can't find such cleaner occupations, out of distress situations, she has to get employed in the work whatever she gets first. Her chances of upward occupational mobility are usually restricted. They are usually confined to work near their residence and access jobs through informal contacts, which may reduce their bargaining power, not just on the job, but also in the choice of work (Mitra, 2005). Our paper finds that working women in the informal sector have less autonomy in the choice of their occupation and even their education level alone cannot help them in getting better and cleaner occupations. Other factors play a bigger role in their choice of occupation like their migration status, number of dependents in the family that they have to look after, whether they are staying with their families or not and the networks they use to get the occupation. This indicates that women are facing double burden of managing their household responsibilities along with working outside homes, in the occupations which may not be their first choice.

Since these are all informal sector work, it is difficult for women to attain skills and enhance their future chances of employment. However, sometimes family, friends, relatives and other networks are important to come out of distress situations, even if the initial occupation is not very good. The entire community can help each other to come out of the occupational traps (Munshi, 2011). Thus, ensuring greater access to networks that can help these women to come out of their occupational traps can be encouraged to empower them and create a better environment for women working in the informal sector to climb up the occupational ladder.

7. POLICY IMPLICATIONS AND LIMITATIONS OF THE STUDY

Given the results of the paper that education itself is not the sole variable in explaining the type of work the woman is engaged in, what is required is to impart training to women to get

employed in cleaner jobs. The work of a sales woman, work at beauty parlour, and other related works require some amount of training. Since all these women are employed in informal sector and may not have enough resources to get formal training, help from non-government organizations (NGOs) can be taken to impart training to these women. Not just training, these NGOs can help women to be self-employed and become self-reliant. This will also be a step towards women empowerment (Gupta, 2021; Lenka and Agarwal, 2017). A model of Self-employed Women Associations (SEWA) can be encouraged amongst these women to motivate them to learn skills and become self-employed and come out of low level occupations and become empowered (Kapoor, 2007).

Being out of the formal channels of support, workers in the informal sector form their own strategies to cope with poverty and overcome uncertainties relating to employment, consumption, health and housing. These informal institutions and networks have been developed over the decades to form a mechanism by which they can enhance their earnings and help experience upward occupational mobility overtime (Mitra, 2020). These social mechanisms can help the entire community to leave their traditional (low-skill) occupations and experience upward economic mobility (Munshi, 2011). Thus, there is a need to tap these institutions and further develop new institutions which can act as an engine for social change (Colovic and Mehrotra, 2020).

We accept that there could be various limitations of our study. One, we do acknowledge that due to logistical reasons, the sample size of the study is small, however we have tried to get as much heterogeneity in the sample as possible by surveying various districts of the three states under study. Two, we did not ask Jati of the individuals, which could have helped us in identifying the broad caste groups of the women to make the analysis better, and would not have clubbed all other caste groups, other than forward caste into one. Three, we have clubbed various cleaner occupation categories into a broad group of “others”. If we would have enough observations, we could have estimated the choice of women in broader categories in more detail. Four, we do not cover male aspect in the analysis. We have only surveyed females in our survey. If we would have surveyed husbands and/or fathers of women (wherever applicable), we may have got a better idea about the decision making process of women regarding her choice of occupation. Similarly, we didn’t ask about the presence of other women in the household and their working status, like presence and working status of mother-in-law, mother, sister-in-law or sister. The female labour force participation dynamics can be greatly affected by the presence of other women in the family, especially the mother-in-law (Morrill and Morrill, 2013). Five, in this paper, we did not interview non-working women living in the informal sector. If we would have, then the analysis could have been done at two different stages, wherein the first stage could be the decision for a woman to enter the labour market or not, and the second stage could be the decision on the type of work the woman is getting into. We believe that our study would have enriched with comparison of working women with their non-working counterparts. We hope to overcome these shortcomings in future research work.

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FOOT NOTES

1. Source: GDP of Indian states - StatisticsTimes.com (accessed in April, 2022)
2. The funding of the project came under the Faculty Research Programme by Institute of Eminence (IoE), University of Delhi, Ref. No./IoE/2021/12/FRP.
3. The validity of the survey instrument was assured by giving the initial questionnaire to a panel of experts and faculty members. This was intended to assure the validity of its content, the accuracy of its interpretation of the objects, and to ensure its ties with the study objectives. To confirm the reliability, the questionnaire was tested on a pilot basis using 43 respondents, representing approximately 7 percent of the total sample size, who were considered the research population representatives.
4. As per National Classification of Occupation codes (2015), cooks, beauticians, sales persons and related work comes in occupation family code 5, while washers and cleaners come in occupation family code 9. Thus, our classification of different occupations into the above mentioned three categories makes the occupation variable an ordered variable.

ORIGIN AND DEVELOPMENT OF SCIENCE IN INDIA

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ABSTRACT

The paper deals with the origin and development of science in the Indian subcontinent. How people started to observe nature and develop technologies for their betterment. Science is simply a systematic study of the natural and physical world through observation and experiment, whereas technology is defined as the application of knowledge in practice. As it can be seen in the subcontinent that the people of the Palaeolithic period were well aware of tool making, which involves different techniques, so it could be said that the beginning of science in the Indian subcontinent started from the Palaeolithic period itself and developed continuously from time to time.

Keywords: tool making, pottery, agriculture, domestication of animals, metallurgy, astronomy,

INTRODUCTION

The beginning of science and technology in the Indian subcontinent could be traced back to the Palaeolithic period only as the people of that period started to use stone tools with different technologies and from then on, continuously develop. The advancement in the techniques and the introduction of new techniques imply the abovementioned statement. From making stone tools to astronomy and medicine, we show the development in the field of science in the subcontinent. Every period of the subcontinent has its own story in the field of science. The Palaeolithic is about making tools, the Mesolithic is about the science of painting, the Neolithic is about farming and taming animals, the Bronze Age is about metallurgy, and the Iron Age is about literature and astronomy. Each period has its unique characteristics in the fields of science.

The Palaeolithic Period

The period goes back to 2 million years ago and continues till 10,000 years ago in the Indian subcontinent. The very first evidence yielded from the subcontinent was the hand axe (stone tool), which was discovered by the geologist of the Geological Survey of India named Robert Bruce Foote in the summer of 1863 from Pallavaram near Madras (modern Chennai). As the name itself implies, "palaeo" means old and "lithic" meaning stone, integrated as the old stone age, that stone was probably the most used source of the period and, accordingly, the primary source of information for the period.

The techniques used for the making of the stone tools in the period suggest the scientific mind of the people of that period and could be dated to the inception of science in the subcontinent. The Palaeolithic stone tool-making techniques like primary fabrication such as a block on block, direct percussion, hollow hammer technique, and resolved flaking would not have been possible without science (Bhattacharaya, 1991). The involvement of controlled force, pressure, and projection in these techniques involve science as well.

Mesolithic Period

The period stretches from 10,000 to 8,000 years ago. The period is recognised for the microlithic tools, which vary from 1 cm to 5 cm. The smaller size and ease of portability of these tools suggest the development in the field of science in that period. Previously, tools were not made for a particular purpose but a single tool was used for various purposes, but as time

went by and the advancement in technology took place and new advanced techniques for tool making were introduced, a particular tool for a particular purpose was crafted.

The development in science in the period could be traced to the methods used to make the paints for the rock art paintings, which were found in abundance in the subcontinent. The selection of the raw material for the paint followed by the grinding and mixing it with other elements was the result of observation, experiment and implication. Because the paint used in these paintings was highly pigmented, it has survived to this day. On the other hand, the science of making handmade potteries was introduced. Clay preparation, pot shaping, and drying all necessitate extensive knowledge. The very first evidence of pottery showed up in this period, though the numbers are less.

Neolithic Period

The phase is considered revolutionary (Childe, 1939) as there occurred a drastic change in every aspect, from tool making to permanent settlement to agriculture and domestication of animals. People started to follow the rules of nature, and with the right education and knowledge, they put those rules to use in agriculture. This turned them from nomads into permanent settlers. The study of the behaviour of the animals made them capable of domesticating the animals. All these developments pushed them a step toward science.

Bronze Age

The use of bronze (an alloy of copper) itself shows the high knowledge of metal and its casting into objects. The extraction of metal from their ore and making the alloy by heating and mixing them was well known to the people of the bronze age. They knew the benefits of bronze over copper. Bronze is harder than copper and easy to cast (i.e. more fusible) as well.

The best example to see the achievement of science and technology of this period is the Harappan civilization which is considered one of the oldest civilizations in the world.

The Harappans used new techniques in handicrafts such as carnelian products, seal carving, and copper, bronze, lead, and tin in metallurgy (Kenoyer, 1999). The cities of the Harappan civilization were very well planned and built, with baked bricks being used to build houses and buildings in rows on both sides of the road. Some houses were also built in the streets. Their buildings also contained two-room houses. Some houses also had private bathrooms with earthen pots in the walls, which also had a drainage system. In some cases, there was also a provision for a cradle to sit on the toilet. In the Indus Valley Civilization, the drainage system was in very systematic order, with every household using a drainage system for the best convenience. The drainage point of each house was made of bricks. The architecture of well-planned urban centres based on fixed layout patterns with scientific roads, drainage systems (with the use of corbel technology), and public structures (such as granaries and great baths), was far ahead of its time and a precursor to the modern concept of architecture and civil engineering. The Harappan civilization also built the world's first "tidal port" at the head of the Gulf of Cambay in Lothal, Gujarat, a testament to their high level of knowledge regarding the ebb and flow of tides. The Indus Valley Civilization was devoid of major advances in transportation technology. These advances could include bullock carts similar to the boats seen today throughout South Asia. Most of these boats were probably small, flat-bottomed crafts, probably propelled by sails, which can be seen today on the Indus River. However, there is secondary evidence of sea-going craft. Archaeologists have discovered a huge, dry canal as a docking facility in the coastal city of Lothal in western India (Gujarat state). An extensive canal network, which was also used for irrigation,

The Indus people were the first to use complex multi-cropping strategies in both seasons, growing foods such as rice, millet, beans, etc. during the summer and wheat, barley, and pulses in the winter, which required separate pruning management (Bates, 2016).

The Indus Valley Civilization was technologically advanced and had a good understanding of metallurgy; they also used standardised burnt bricks, precise weights, and cotton. Many subdivisions also had a standardised system of weights and measurements with calibration. According to the evidence found in the excavation, they used gold, silver, copper, lapis lazuli, turquoise, amethyst, alabaster, jade, etc.

The Harappans learned new ways to work with metal and made copper, bronze, lead, and tin. A stone touching gold streaks was found at Banawali, which may have been used to test the purity of gold, a technique still used today in parts of India.

The people of the Indus Civilization had achieved great accuracy in measuring length, mass, and time (Singh, 2008). A comparison of available items shows large-scale variation in the Indus regions. Their smallest division, marked on an ivory scale found at Lothal in Gujarat, was about 1.704 mm, the smallest recorded on a Bronze Age scale. For all practical purposes, Harappan engineers used the decimal system to measure everything, including the weight of hexahedrons, which they used to measure mass.

He also had a stone to weigh, whose weights were 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100, 200, and 500 in the ratio of 5:2:1. Unit and smaller items were weighed in equal proportions with 0.871 units, each unit weighing 28 grams, roughly the same as the English Imperial ounce or Greek unit. However, as in other cultures, the actual weights were not uniform across the region. The weights and measures used in the later Kautilya's Arthashastra (4th century BCE) are similar to those used in Lothal.

The Harappans were very modern in mathematics; the numerical system developed by them included symbols for most numbers and many innovations for mathematical numbers, such as addition and multiplication. The Harappan numerical system in use has decimal and an additive multiplier. There are also numerical symbols for 4 to 100, 1000 and their derivatives. The numerical systems that were first used by the Harappans were later found in other ancient civilizations as well.

The Harappans were familiar with medical science and used various herbs and medicines to treat diseases. The people of the Indus Valley Civilization practised trephination which is a type of medical intervention, in which a hole is made in the skull to treat skull and brain disorders. Evidence of traction (a set of mechanisms to straighten broken bones or reduce pressure on the spine and skeletal system) has also been found at Lothal, Kalibangan, and Burzahom, but not at Harappa or most other sites.

According to a report published in the journal Nature, the oldest evidence of tooth extraction in a living person is found in Mehrgarh around 7000 BC. This tooth drilling involves dentition with drills operated by skilled bead craftsmen. It is a great example of proto-dentistry.

The people of the Indus Valley were familiar with the use of pottery and also knew pottery painting and glazing. He also knew using lime as plaster. He used pyro-technology to heat the lime. The people of the Indus Valley had also made 'fans' by heating silica to 1200 °C.

He had good knowledge of making pots and bricks in furnaces and was also an expert in bead making. In fact, he knew the art of bead cutting, drilling, and polishing. In addition, Mehrgarh shows evidence of local copper ore (Singh, 2008), containers made of bitumen, domestication of plants and animals, and tools with tanning.

The Iron Age and Later Periods

The period provides an abundance number of written evidence of science and this evidence itself implies the advanced sciences of that period. Following are the works which give a detailed account of the science of the period:

The Atharvaveda has the oldest mention of medicines (Singh and Girish, 2012). However, as in other ancient societies, suggested treatments were laced with supernatural charms and spells, and medicine could not progress scientifically.

The word "mathematics," which implies the science of calculation, appears frequently throughout Vedic literature. Astronomy, arithmetic, and algebra were all included in the phrase (Mathematica).

The Vedic people devised innovative methods for converting squares to the area of triangles, rectangles, and circles, as well as for converting the sum and difference of squares to the sum of the area and difference of the square. These references and descriptions can be found mostly in the Shulbasutras, but also in the Satpatha Brahmana and Taittiriya Samhita to a lesser extent.

Thoughts on the Cosmos: According to the Rigveda, the universe is made up of three parts: Prithvi (Earth), Akash (literally "the region under the stars"), and Divya or Dyaus (heaven). The Rigveda contains a discussion concerning the earth's expansion. From what it said, the earth was thought to be round and to float in the air.

The Shatapatha Brahmana refers to it as Parimandala (globe or sphere). The Rigveda has evidence of knowledge of the earth's axial rotation and yearly rotation. The Sun is recognised to be the cause of these motions. According to Rigveda, there is only one sun, which created day and night, twilight, month, and year.

The word *ayas* is used in Rigveda to refer to copper or bronze rather than iron (Singh & Girish, 2012). Later Vedic terms like *Krishnaya*, *Kalyasa*, or *Syamaya*, which mean 'dark metal,' were used to refer to iron; iron (literally, red) or iron is a generic term for the metal, and often means iron.

Vridha Garg was the first Indian astronomer. His name is mentioned in the Mahabharata. Vridha Garga was already considered a brilliant Indian astronomer who lived several centuries earlier when the Mahabharata was published in its current form (4th century AD). Aryabhata discovered that the Earth spins on its axis. He used the Babylonian method to compute the planet placements.

Ayurveda, the traditional Indian medical system, is a specific field of knowledge about life that deals with both the body and the mind. It comes from the parts of the word "Ayurveda" that mean "life science": "Ayu" means "life" and "Veda" means "knowledge". Ayurveda's focus extends beyond physical health to encourage overall physical, mental, and spiritual wellness in the context of man's interaction with his environment.

CONCLUSION

From the above, it could be concluded that the emergence of science in the Indian subcontinent is not new but prehistoric. It started from the very Palaeolithic and continues till date, from tool making in Palaeolithic to pottery making in mesolithic to agriculture and domesticating animals in Neolithic to metallurgy in bronze age to literature and astronomy in Vedic and later period. The process of learning and acquiring knowledge and implicating it in the practical world is age-old.

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COMPARATIVE STUDY OF ONLINE AND OFFLINE SHOPPING IN JASHPUR DISTRICT (C.G)

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ABSTRACT

*Two best medium of shopping online and offline shopping. Offline shopping is running very long ago, while shopping online comes for a few years. Buying goods and service through E-commerce is being done from digital platform. Online shopping is a part of E-commerce. This study based on comparative study of online and offline shopping in Jashpur district (C.G.). The article based on primary data, data collection has been done through questionnaire coming from 100 people living in Jashpur district (C.G.). The study found that online shopping increasing day by day. Online trend increasing because of time saving, good quality of products, 24*7 services available in online shopping, easy payment system, easy return of products, verity of products available in online shopping, consumer satisfaction etc. This proves that the offline retailers had a lot of impact from coming of online shopping*

Keywords: E-commerce, online shopping, offline shopping, physical presence etc.

INTRODUCTION

Shopping is done in a two way first one is offline shopping and second one is online shopping. Offline shopping we also called traditional shopping, which are running several years. Online shopping is a part of E-commerce. Online shopping done without any physical presence. Some people are prefer to do online shopping, some people like to do online shopping and some people like to both kind of shopping. Online shopping is a good and easy medium of shopping, in many facilities such as time saving, quality of products, security, trust, compare of products, home delivery facilities, 7 day return facilities 24*7 services. Government has also done a good job towards the digital revolution, which provides the very well being materials made from the very simply necessary content.

OBJECTIVE OF THE STUDY

1. To compare between online shopping v/s offline shopping in Jashpur district.
2. To analysis factors which affect to move from offline shopping to online shopping.
3. To examine the qualification of the customer affect the shopping online and shopping offline.
4. To analysis which type of products is mostly purchase in online shopping stores.
5. To find out the perception of consumer towards online shopping and offline shopping.

REVIEW OF LITERATURE

(Ushir, & Dolly, 2022, pp.116-121). To identify the factors that influence to buy medicines offline. To find out the factors that restrict the customers to buy medicine online. Maximum of Indian population currently chooses online to acquire medicines. People prefer offline store to online store for various reason like ease of access, fast, convenience, trust, discount and offers.

(Lakshmi, & Manohar, 2021,)The methodology used in this study both Primary as well as Secondary data based. Key focus of the study to find out the various challenges of online shopping and how to overcome from this. The study found that an opportunities of online shopping and how to create and maintain trust worthy relation in online transaction. To find out

FDI and online retailing relationship, challenges related to customers protection in transaction that related privacy, security and protection and how to solve them.

(Lakshmi, & Manohar, 2021), Title of the study online v/s offline A comparative study .This study based on primary as well as secondary data. In this study to analysis that how many shopping available online at the covid-19 time , people are moving more and more online shopping more progressive comparison to offline shopping . They found that online shopping should be further ever further

(Tyagi et al. 2020), Title of the topic “panic shopping in Covid 19 pandemic: A comparative study of eastern and western culture. The study based on primary as well as secondary data . to analysis eastern and western culture shopping in covid 19 pandemic, and the study found that before pandemic shopping is a part of enjoyment , entertainment , only for need , worthlessness, emptiness feeling but after pandemic has to give new definition of shopping behavior.

(Kumar, & Khurana, 2019, pp. 1-6), Title of the study A comparative study of online and offline in Haryana . The methodology used in this study both primary as well as secondary .In this study to analysis the satisfaction level on online and offline shopping and compare offline and online shopping and they found that maximum consumer preferred to offline shopping . The government has mainly focus on transforming digital economy in the country. Online shopping has an increasing due to compare price of the products, time saving , 24*7 services available in online shopping , but some problem regarding online shopping like security , quality of products , product delivery problem , service problem trust issue . In future that must be sorted.

(Kuar, & Kuar, 2018, pp.1460-1470), Title of the study Comparative study on online vs. offline shopping. The study based on primary data and secondary data and find the survey 72% consumer are 18-25 years old and 28% consumer over 26 years old . They found maximum of the consumer are satisfied with online shopping and 100% consumer are prefer to online shopping . The overall results proved that the consumer is use and preferd online shopping in a positive manner.

(Singh, & Kaur, 2017, pp.26-34), Title of the study “comparative study on factors influencing online and offline shopping (with special reference to kanyakumari district of Tamilnadu .This study based on primary as well as secondary data .this study provide mixed result of online shopping and offline shopping . Electronic products are purchased more than offline stores compared to online shopping stores. People are shopping online and slowly ahead. The study found that online shopping is good to ensure the good quality of products, 24*7 services available, after sales services, discounts and festival offers etc. are the reason for more trusts for online shopping and it is moving towards progress.

(Panigrahi, Upadhyaya & Raichurkar, 2016, pp. 15-22) In their research work title, “E-commerce Services in India: Prospects and Problem”. This article based on secondary data. Mentions concept of e- commerce, trends of online shopping, merits and demerits of E-commerce. etailers are go beyond their boundaries in order to get compatible with new digital business era. Digitalization is no more a choice now; rather it has become a necessity for all retailers. This could include transformation of business models, incorporating technological investments, getting tech-savvy with new advancements.

(Saha, 2015), In their research work title, topic of the article is to study “the impact of online shopping upon retail trade business”. To study the effect on profitability of retail stores due to the advent of e-stores. To analyze the effect upon pricing patterns of retail stores in recent time change in business pattern to achieve customer satisfaction. In this study has been made to show the impact of the increasing trends of online shopping over the offline retailers.

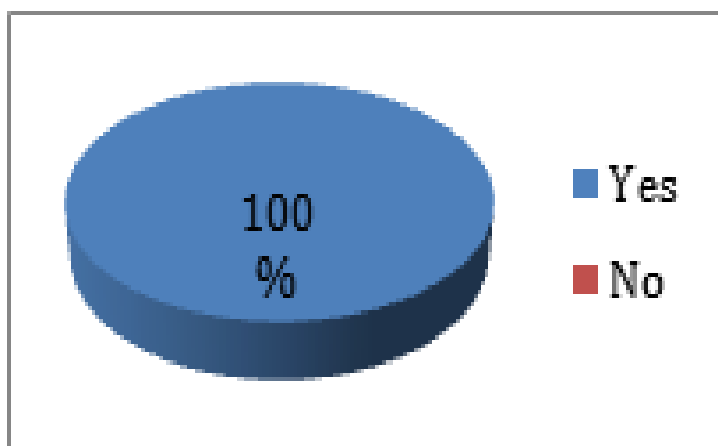
DATA COLLECTION

This article based on primary data collection. Questionnaire development is a type of primary data collection method .For this I will frame a questionnaire in such a way that it will be able to collect all important information to the project.

DATA ANALYSIS AND INTERPRETATION

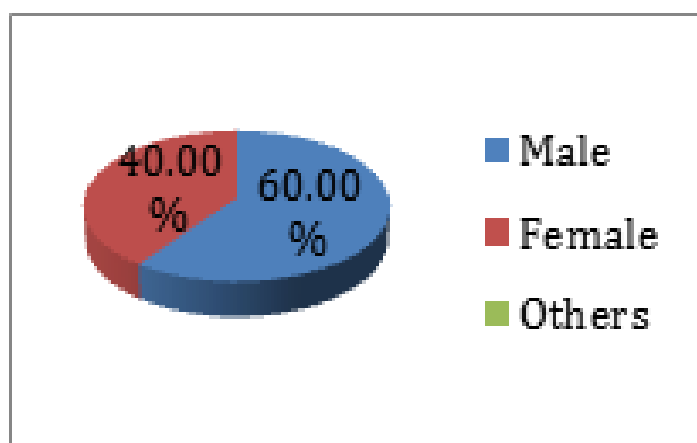
1) Are you from Jashpur district Chhattisgarh?

Option	Respondents	Percentage
Yes	100	100%
No	0	0%
Total	100	100 %



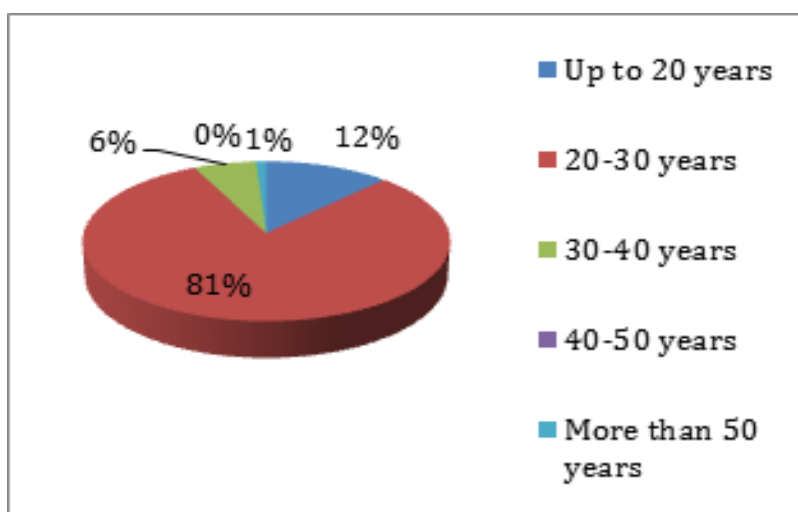
Gender?

Option	Respondents	Percentage
Male	60	60%
Female	40	40%
Others	0	0%
Total	100	100 %



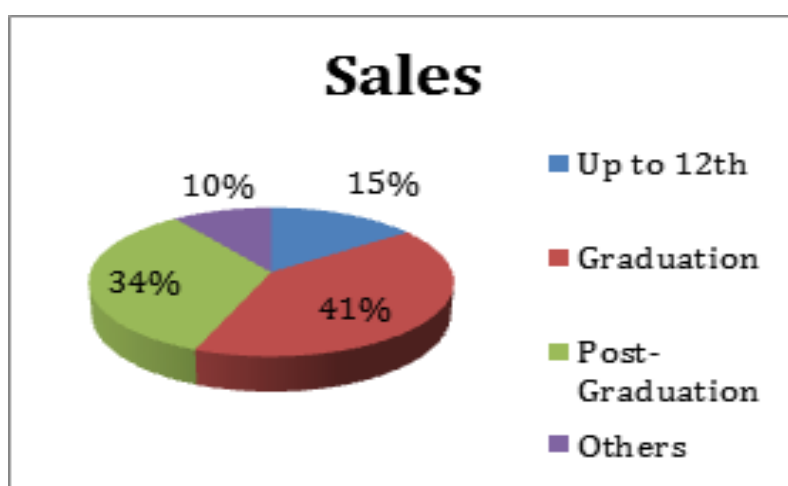
2) Age?

Option	Respondents	Percentage
Up to 20 years	12	12%
20-30years	81	81%
30-40years	06	6%
40-50years	0	0%
More than 50 years	01	1%
Total	100	100%



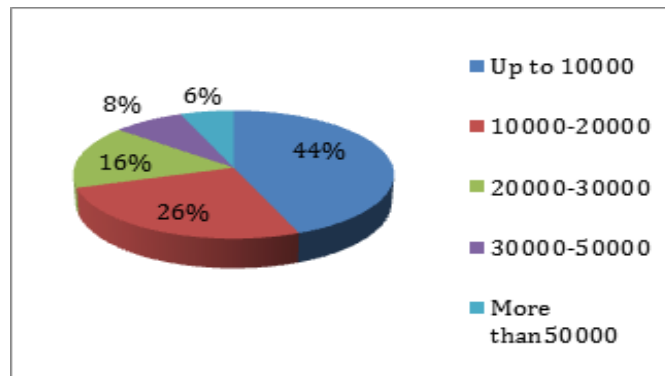
3) Education?

Option	Respondents	Percentage
Up to 12 th	15	15%
Graduation	41	41%
Post-Graduation	34	34%
Others	10	10%
Total	100	100%

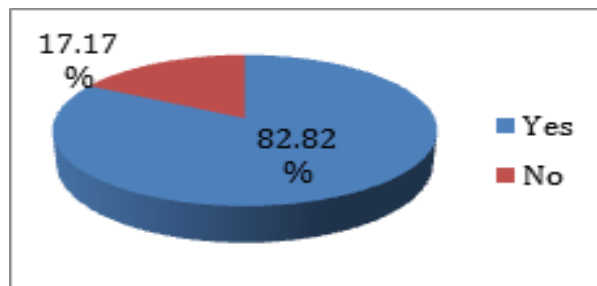


4) Monthly Income?

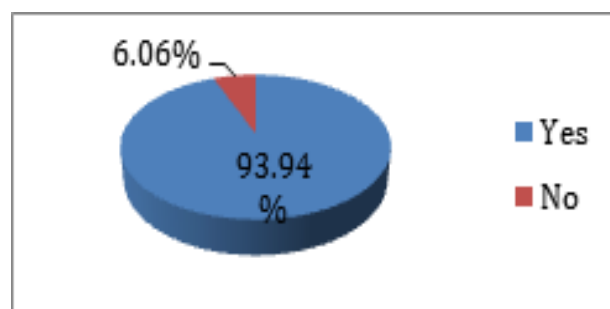
Option	Respondents	Percentage	Option
Up to 10000	44	44%	Up to 10000
10000-20000	26	26%	10000-20000
20000-30000	16	16%	20000-30000
30000-50000	8	8%	30000-50000
More than 50000	6	6%	More than 50000
Total	100	100%	Total

**5) Do you Like Shopping Online?**

Option	Respondents	Percentage
Yes	82	82.82%
No	17	17.17%
Total	99	100%

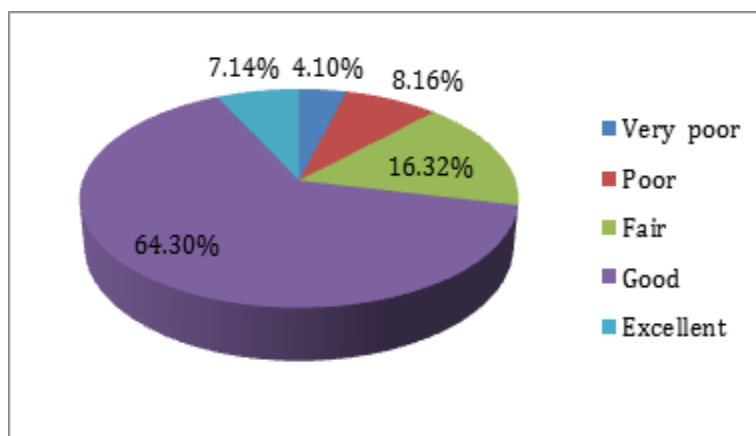
**6) Do you Like Shopping Offline?**

Option	Respondents	Percentage
Yes	93	93.94%
No	06	6.06%
Total	99	100%



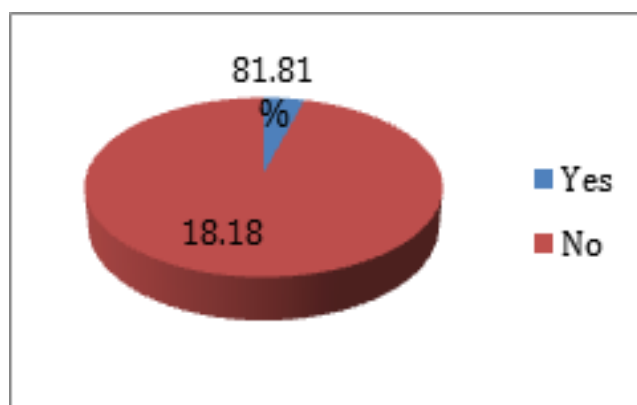
7) How was the Process of Online Shopping?

Option	Respondents	Percentage
Very poor	04	4.1%
Poor	08	8.16%
Fair	16	16.32%
Good	63	64.3%
Excellent	07	7.14%
Total	98	100%



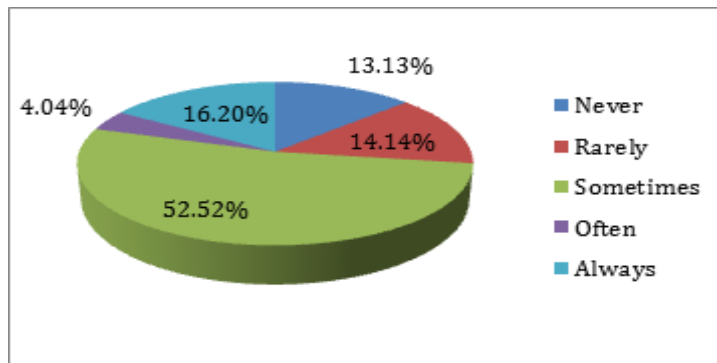
8) Did you Find Easy and Convenient to Shop Online?

Option	Respondents	Percentage
Yes	81	81.81%
No	18	18.18%
Total	99	100%



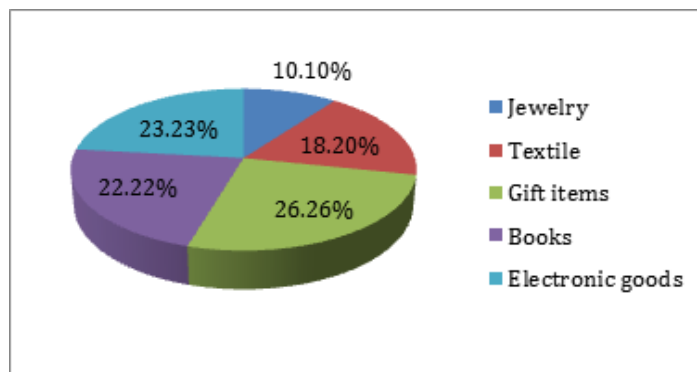
9) How Much Frequency of Use the Internet for Shopping?

Option	Respondents	Percentage
Never	13	13.13%
Rarely	14	14.14%
Sometimes	52	52.52%
Often	4	4.04%
Always	16	16.2%
Total	99	100%



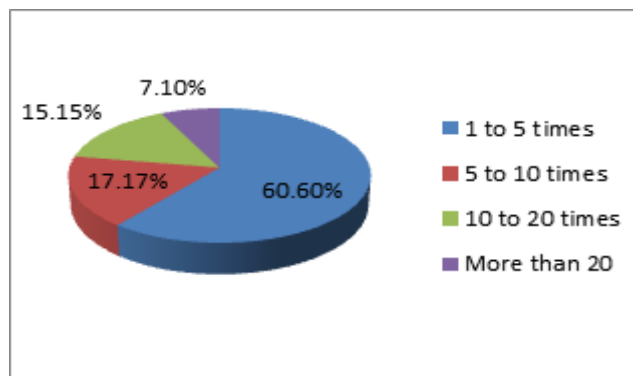
10) Which Product Most you Buy Online?

Option	Respondents	Percentage
Jewelry	10	10.10%
Textile	18	18.2%
Gift items	26	26.26%
Books	22	22.22%
Electronic goods	23	23.23%
Total	99	100%



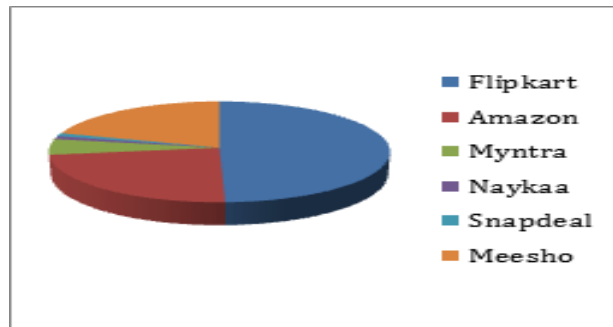
11) How Many Times do Yyou Visit Online in a Month?

Option	Respondents	Percentage
1 to 5 times	60	60.6%
5 to 10 times	17	17.17%
10 to 20 times	15	15.15%
More than 20 times	7	7.1%
Total	99	100%

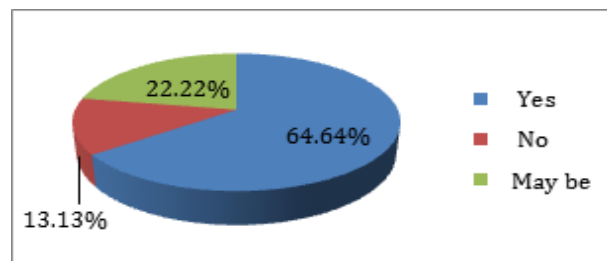


12) Which Website do you Use for Shopping Most?

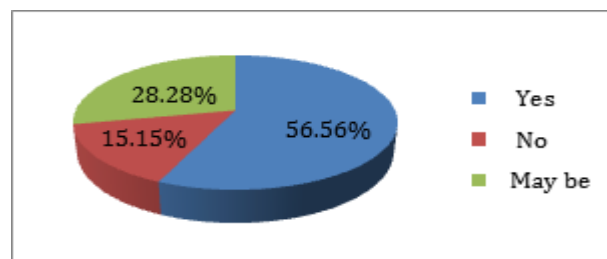
Option	Respondents	Percentage
Flipkart	49	49.5%
Amazon	23	23.23%
Myntra	05	5.05%
Naykaa	01	1.01%
Snapdeal	01	1.01%
Meesho	20	20.2%
Total	99	100%

**13) Product Price are Affordable in Online Shopping?**

Option	Respondents	Percentage
Yes	64	64.64%
No	13	13.13%
May be	22	22.22%
Total	99	100%

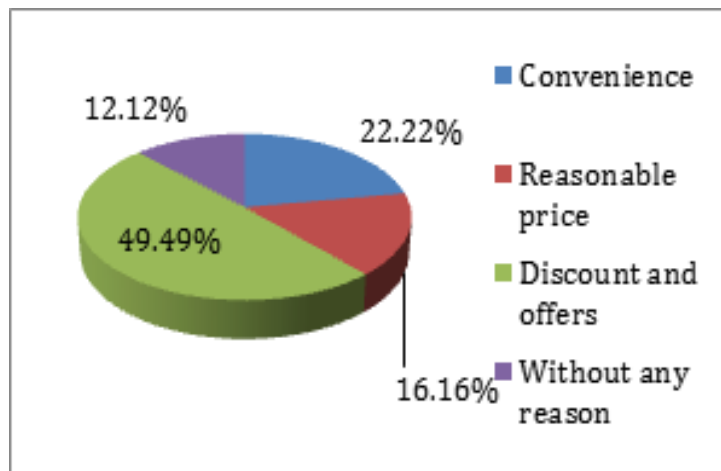
**14) Product Price are Affordable in Offline Shopping?**

Option	Respondents	Percentage
Yes	56	56.56%
No	15	15.15%
May be	28	28.28%
Total	99	100%

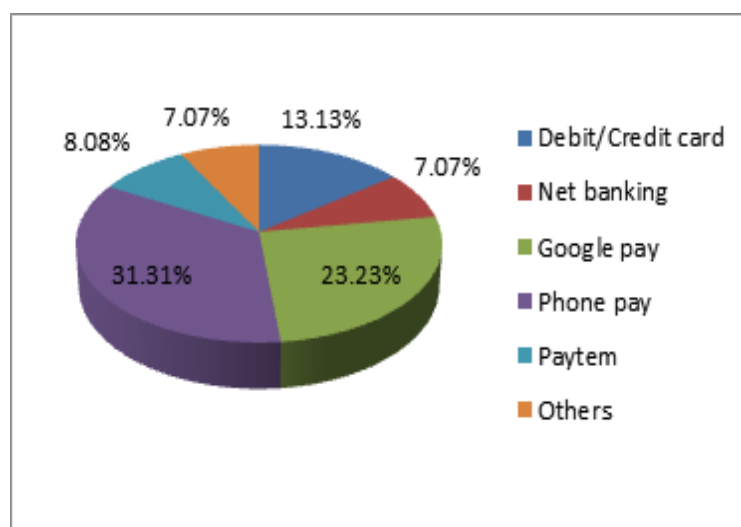


15) What Reasons made you Shop Online?

Option	Respondents	Percentage
Convenience	22	22.22%
Reasonable price	16	16.16%
Discount and offers	49	49.49%
Without any reason	12	12.12%
Total	99	100%

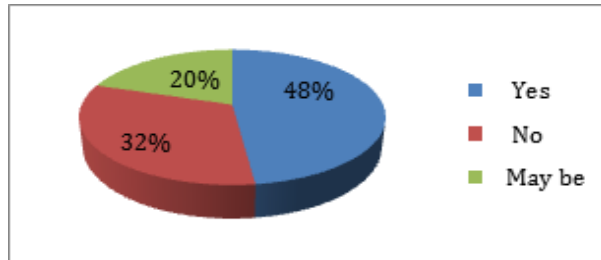
**16) What Mode of Payment do you Prefer?**

Option	Respondents	Percentage
Debit/Credit card	13	13.13%
Net banking	07	7.07%
Google pay	23	23.23%
Phone pay	31	31.31%
Paytem	08	8.08%
Others	07	7.07%
Total	99	100%

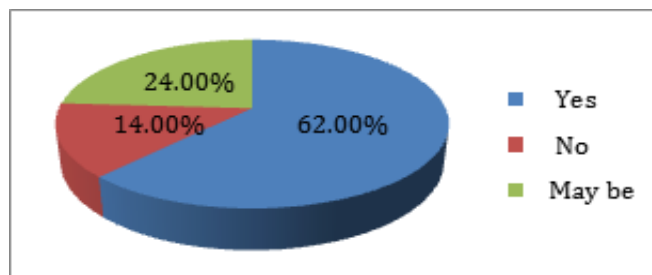


17) Have you Ever Had Bad Experience While Shopping Online?

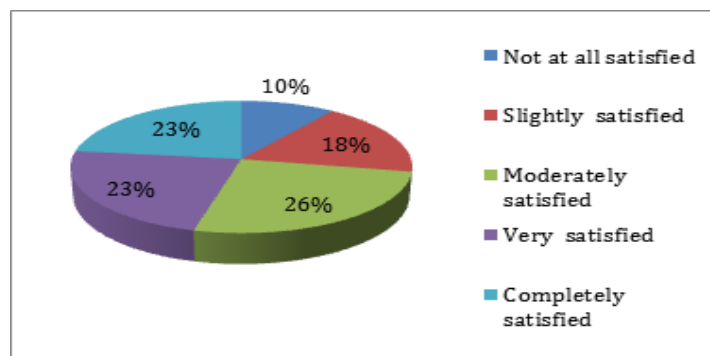
Option	Respondents	Percentage
Yes	48	48%
No	32	32%
May be	20	20%
Total	100	100%

**18) Would you recommend Shopping Online to Others?**

Option	Respondents	Percentage
Yes	62	62%
No	14	14%
May be	24	24%
Total	100	100%

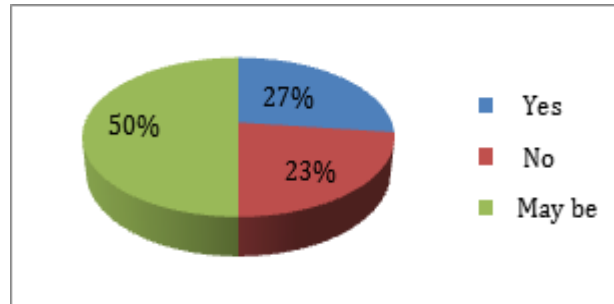
**19) How Much Level of Satisfaction towards Real Hand Experience in Offline Shopping?**

Option	Respondents	Percentage
Not at all satisfied	10	10%
Slightly satisfied	18	18%
Moderately satisfied	26	26%
Very satisfied	23	23%
Completely satisfied	23	23%
Total	100	100%

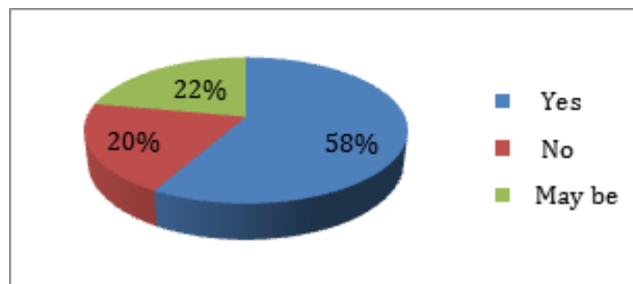


What Method of Shopping Do you Prefer the Most?

Option	Respondents	Percentage
Online	27	27%
Offline	23	23%
Both	50	50%
Total	100	100%

**20) Does an Online Retailer Affect Offline Retailers?**

Option	Respondents	Percentage
Yes	58	58%
No	20	20%
May be	22	22%
Total	100	100%

**FINDINGS**

- ❖ The survey showed that 100% of consumers are from Jashpur district Chhattisgarh.
- ❖ The survey showed that 60% of consumers are male and 40% of consumers are female.
- ❖ Analysis show, 12% of consumers are up to 20 years old, 81% of consumers are 20 to 30 years old, 6% of consumer are 30 to 40 year old and 1% of consumers are more than 50 years old.
- ❖ 15% people have studied up to 12th class, 41% people have studied graduations, 34% people have studied post graduation and 10% people have studied others.
- ❖ 44% of consumer their monthly income up to 10000, 26% of consumer their monthly income 10000 to 20000, 16% of consumer their monthly income 20000 to 30000, 8% of consumer their monthly income 30000 to 50000 and 6% of consumer their monthly income more than 50000.
- ❖ 81, 81% of consumer like online shopping and 17.17 of people does not like online shopping. 93.94% of consumer like offline shopping and 6.06% of consumer does not like offline shopping.

- ❖ 4.1% consumer say the process of online shopping is very poor, 8.16% of consumers say the process of online shopping is poor, 16.32% of consumers say the process of online shopping is fair. 64.3% of consumers say the process of online shopping is good. 16.32% of consumers say the process of online shopping is fair. 7.4% of consumers say the process of online shopping is excellent.
- ❖ 81.81% of consumer find easy and convenient to shop online, 17.17% find easy and convenient to shop online. 13.13% consumer never use the internet for shopping. 14.14% rarely use the internet for shopping. 52.52% consumer sometimes use the internet for shopping. 4.04% of consumer often use the internet for shopping and 16.2% of consumer always use the internet for shopping.
- ❖ 10.10% people like to buy jewelry product online. 18.2% people like to buy textile product online. 26.26% people like to buy gifts items online. 22.22% people like to buy books online. 23.23% people like to buy electronic products online.
- ❖ Study analysis 60.6% consumer 1 to 5 time visit online shopping in a month. 17.17% consumer 5 to 10 time visit online shopping in a month. 15.15% consumer 10 to 20 time visit online shopping in a month. 7.1% consumer more than 20 times visit online shopping in a month.
- ❖ 49.9% consumer shopping from flipkart. 23.23% consumer shopping from Amazon. 5.05% consumer shopping from myntra. 1.01% consumers shopping from Naykaa. 1.01% consumer shopping from snapdeal and 20.2% consumer shopping from meesho.
- ❖ 64.64% prices are affordable in online shopping. 13.13% price are NOT affordable in online shopping and 22.22% price are may be affordable in online shopping. 56.56% prices are affordable in offline shopping. 15.15% prices are not affordable in offline shopping and 28.28% prices are maybe affordable in offline shopping.
- ❖ 22.22%, convenience is the reason to shop online. 16.16%, reasonable price is the reason to shop online. 49.49%, discount and offers is the reason to shop online. 12.12%, without any reason to shop online.
- ❖ 13.13% consumer use debit and credit card for shopping. 7.07% consumer use net banking for shopping. 23.23% consumer use Google pay for shopping. 8.08% consumer use paytm for shopping. 7.07% consumer use others for shopping.
- ❖ 48% consumer had bad experience while shopping online. 32% had no bad experience while shopping online. 20% had may be bad experience while shopping online.
- ❖ 62% of consumers are recommending online shopping to others. 14% of consumers are not recommending online shopping to others. 24% of consumers are may be recommending online shopping to others.
- ❖ 10% of consumers not at all satisfied towards real hand experience in offline shopping. 18% of consumers slightly satisfied towards real hand experience in offline shopping. 26% of consumers moderately satisfied towards real hand experience in offline shopping. 23% of consumers very satisfied towards real hand experience in offline shopping. 23% of consumers completely satisfied towards real hand experience in offline shopping.
- ❖ 27% consumers prefer online shopping to others. 23% consumers prefer offline shopping to others. 50% of consumer prefer both type of shopping
- ❖ 58% online retailers affect offline retailers. 20% online retailers do not affect offline retailers. 22% online retailers may be affects offline retailers.

CONCLUSION

Online shopping is a good and their experience in short time has become a good and cheap instrument for online shopping customer, which has got a new progress to the business. In this survey it was found that there is a good medium of online shopping business and more and more people are moving forward like online shopping, because of which the offline retailers have had a lot of impact. In online system, retailers should also work well in their service and quality of product and making more confidence in online shopping and its short coming, which made customer completely on the shopping online. This survey has been kept a positive idea towards online shopping. Along with online shopping, people faith is also very high on offline shopping and there is major contribution of features such as physical presence and quality of product and after sale service. Due to being a rural area of Jashpur district Chhattisgarh, online shopping here is in a very high practice in which there is a huge impact of offline retailers.

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PERFORMANCE APPRAISAL OF SARVA HARYANA GRAMIN BANK**Shikha¹ and Dr. Sanjay Kumar²**

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ABSTRACT

Bank plays significant role in the economy of any country. The banking system is the backbone of our country. RRBs were recommended by Narsimha committee in 1975, and after the committee's recommendation RRBs were established. The main motive of RRBs is to boost the confidence of rural people by providing credit facilities to the rural people. SHGB is the one and only RRB in Haryana. The SHGB is established after the amalgamation of two RRBs of Haryana, these two RRBs are Haryana Gramin Bank and Gurgaon Gramin Bank. This paper attempts to analyse the financial performance of SHGB in rural development and their impact on economic growth. The study will be based on secondary data collected from annual reports of SHGB, NABARD and RBI. An analytical research design of Key Performance Indicators Analysis such as number of banks and branches, deposits, loans, investments and growth rate index will be analysed in the study.

Keywords: Performance Evaluation, SHGB, rural development, performance indicator, economic growth.

INTRODUCTION

Banks play a significant role for both the developed and developing countries. Indian banking is the backbone of the nation and its people. Banking sectors is a significant driver of financial activities, which plays a crucial role in the success and failure of an economy. If the banking system in a country is efficient and disciplined, it leads the way to the rapid growth in the economy. Banks play an important role in mobilization of deposits and disbursement of credit to various sectors of the economy for the productive purpose. A sound banking system proficiently arranges mobilized savings in productive sectors and a secure banking system ensures that the bank is capable of meeting its obligation to the depositors.

REGIONAL RURAL BANK

Regional Rural Banks were established under the provisions of an ordinance passed on 26th September 1975 and RRB Act was established in 1976. As a result, five RRBs were set up on 2nd October 1975 on the recommendations of the Narasimhan working committee. The RRBs were established with the objective to provide rural credit to rural people. The Regional Rural Banks in Haryana have their existence from the beginning of the first five Regional Rural Banks. Haryana Kshetriya Gramin Bank is the first of five RRBs of Haryana. Its head office was in Bhiwani, and this RRB is sponsored by the Punjab National Bank.

Gurgaon Gramin Bank

In 1976, Gurgaon Gramin Bank was introduced as another Regional Rural Bank in Haryana which was sponsored by the Syndicate Bank with its head office situated in Gurgaon. The main objective of this Bank was to create banking habits between the rural populations by revealing the benefit of small savings.

Haryana Gramin Bank

In the year of 1984 and 1985 two more RRBs were also established in Haryana. These RRBs were the Hisar Kshetriya Gramin Bank with head office in Hisar and Ambala Kurukshetra Gramin Bank with head office in Ambala, both sponsored by the Punjab National Bank. In the first phase, after the amalgamation of the three RRBs in Haryana, namely Haryana Kshetriya Gramin Bank, Hisar Kshetriya Gramin Bank and Ambala Kurukshetra

Gramin Bank, a new bank was established on 21st December 2005, after as per the notification issued by the Government of India (GOI) announcement regulating the consolidation of RRBs into a single state, as per Section 3 of the Regional Rural Banks Act, 1976, that RRBs was

“Haryana Gramin Bank”. At this stage, the state had two Regional Rural Banks which are Haryana Gramin Bank and Gurgaon Gramin Bank working autonomously. The second phase of the amalgamation of Regional Rural Banks in India was started in 2012, “the Regional Rural Banks across the sponsor bank within a state had to be merged into single entities to form one RRB for a state”. On 29 November 2013, the Haryana Gramin Bank and the Gurgaon Gramin Bank were amalgamated and the “Sarva Haryana Gramin Bank” came into subsistence.

Sarva Haryana Gramin Bank

“SHGB comes into existence after amalgamation of two RRBs namely Haryana Gramin Bank (Sponsor by Punjab National Bank) & Gurgaon Gramin Bank (Sponsor by syndicate Bank) vide Notification dated 29.11.2013”. At present SHGB head office is at Rohtak, Sarva Haryana Gramin Bank is having branches in all 23 Districts of Haryana State. SHGB is Sponsored by Punjab National Bank. The Sarva Haryana Gramin Bank is sponsored by the central bank which is also known as Reserve Bank of India with 50% shareholding, Apex Bank which is also known as the NABARD is National Bank for agriculture and rural development head office in Chandigarh with 15% shareholding and the sponsor bank with 35%. The sponsor bank, which provides assistance in the form of subscription to its share capital, managerial assistance, also helps in recruitment, training and development of personnel. The main objective of Sarva Haryana Gramin Bank is to provide credit and other facilities to small and marginal farmers, agricultural labourers, artisans and small entrepreneurs so as to progress agriculture, trade, commerce, industry and other in the rural areas.

2. REVIEW OF LITERATURE

Sakshi and Dr. Surbhi Jain (2021) They had To study the performance of Sarva Haryana Gramin Bank in Haryana across four years, from 2017-18 to 2020-21, using the camel model. The research was relied on secondary data. This information is taken from Sarva Haryana Gramin Bank's yearly reports, and the resulting data is evaluated using the CAMEL model. e. The camel is an abbreviation consists of five criteria which are: - • Capital Adequacy • Assets Quality • Management Efficiency • Earning Quality • Liquidity. Their research evaluated the Performance of Sarva Haryana Gramin bank by using 19 different ratios of the camel model. Their research concluded that the Performance of Sarva Haryana Gramin Bank in the case of capital adequacy and asset quality was better. The Performance of management efficiency is average, and the bank's earning quality ratio and liquidity ratio performance was not up to grade.

Dr S.S Narta and Namita (2018) In their research paper they have discussed the profitability part of the 5 Sarva Haryana Gramin bank from 2013-2018. In their paper they had calculate the profitability on the basis of Operating profit of total assets, net profit to total assets, Interest Income to total assets, other income to total assets, total income to total assets, Net profit to advances, operating profit to net profit, Total business and credit deposit ratio of the SHGB. Their evaluation on profitability shows that there is, all the factor which has been taken shows the influence of profit on SHGB. They had used secondary data for their collected from SHGB.

Pardeep and Sakshi (2014) The studied documented by analysis of SHGB by using camel model. The data for the study is calculated from secondary source from 2005-2014 from Sarva Haryana gram in bank. They have considered the 21 ratios to calculate the performance of bank. They have concluded their research with that Sarva Haryana Gramin Bank performed best in the parameter of capital adequacy followed by management quality. Third rank was given to the asset's quality parameter of the bank. Liquidity parameter was at fourth rank. The bank was not performed good enough in earning quality.

Dr. RoopRaj (2018) In her study she measured the performance of SHGB on the basis of branch extension, growth of staff, deposit organisation, owner funds, borrowings outstanding, credit disbursement, credit deposit ratio, investment outstanding, NPA, recovery performance. Her study shows the better performance of SHGB on above mentioned criteria

3. OBJECTIVE OF THE STUDY

To evaluate the performance of SHGB in rural development from 2018-2022

4. **RESEARCH METHDOLOGY** The present study is based on the secondary data and it has been collected from financial statement compiled by head office of Sarva Haryana GraminBank, published and unpublished Report of RBI, annual reports, were referred. For the evaluation of Performance of Sarva Haryana Gramin Bank, a moderate study period of five years was considered which commencing from 2018 to 2022. For performance evaluation of SHGB, ratio analysis has been used and interpreting the results, growth rate, has been used.

5) PERFORMANCE INDICATOR

The performance is measured on the basis of following Indicators:

1. Branch Extension

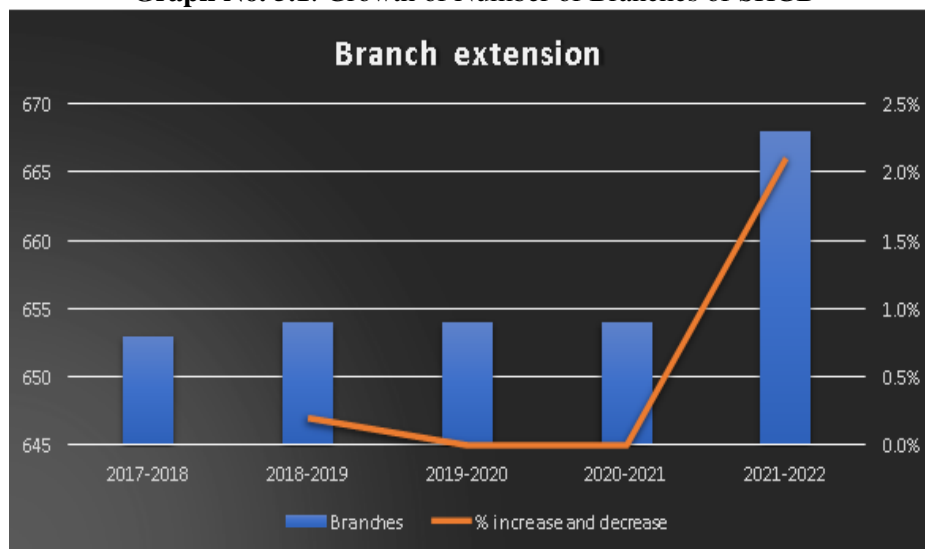
During the study period, the branches has been increased from 653 (2017-2018) to 668 (2021-2022). However, from 2019 -2021, there was no expansion in the branch extension of the bank. During last five-year, highest branch extension was in 2021-2022.

“Table 5.1: Growth of Number of Branches of SHGB”

Year	No. of Branches	Growth%
2017-2018	653	-
2018-2019	654	0.2%
2019-2020	654	0.0%
2020-2021	654	0.0%
2021-2022	668	2.1%

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022

Graph No. 5.1: Growth of Number of Branches of SHGB



(Source: Table 5.1)

I) Area-Wise Growth of Branches

Table No:5.2 shows the information about the area wise branch network of SHGB in Haryana state. The rural branches has been increased from 463(2017-2018) to 472(2021-2022), the semi-urban branches has been increased from 128(2017-2018) to 130(2021-2022), the number of urban branches has been increased from 53(2017-2018) to 56(2021-2022). However, there is no growth in metropolitan branches. The tables show that there is no growth in branches from 2018 to 2021. The growth rate is constant and very low in area wise growth of branches.

Table No 5.1 (I): Area-wise growth of branches

Year	Rural Branches	% Change	Semi- Urban Branches	% Change	Urban Branche	% Change	Metropolitan Branches	% Change
2017-2018	463	-	128	-	53	-	10	-
2018-2019	463	0%	128	0%	53	0%	10	0%
2019-2020	463	0%	128	0%	53	0%	10	0%
2021-2022	472	2%	130	2%	56	6%	10	0%

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”

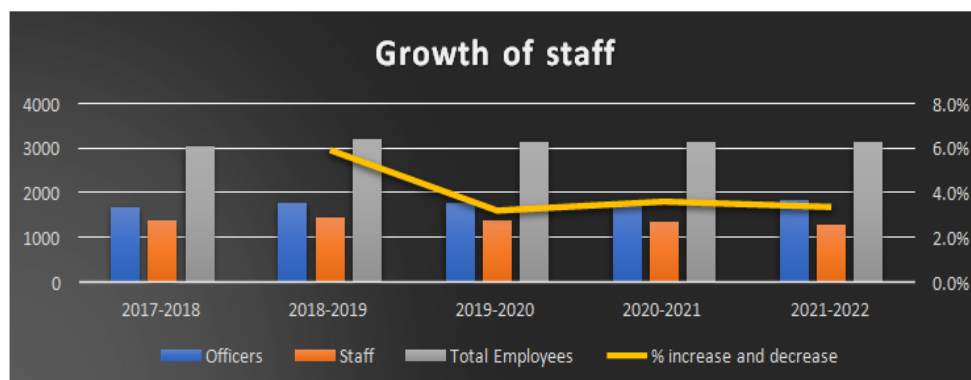
2) GROWTH OF STAFF

The total number of employees has been increased from 3024(2017-2018) to 3126(2021-2022). However, the growth has been negative due to decrease in number of total employees. The highest no. of employees has been in the year 2018-2019(3274) and were least in 2017-2018(3055). The officers have been increased from 1664 (2017-2018) to 1837(2021-2022). However, staff has been increased, still it shows negative growth.

Table No. 5.2: Growth of Staff

YEAR	Officers	Staff	Total Employees	Growth (%)
2017-2018	1664	1360	3024	-
2018-2019	1760	1443	3203	5.91
2019-2020	1753	1368	3121	- 3.20
2020-2021	1793	1340	3133	3.60
2021-2022	1837	1289	3126	- 3.37

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



Source: Table No. 5.2: Growth of Staff

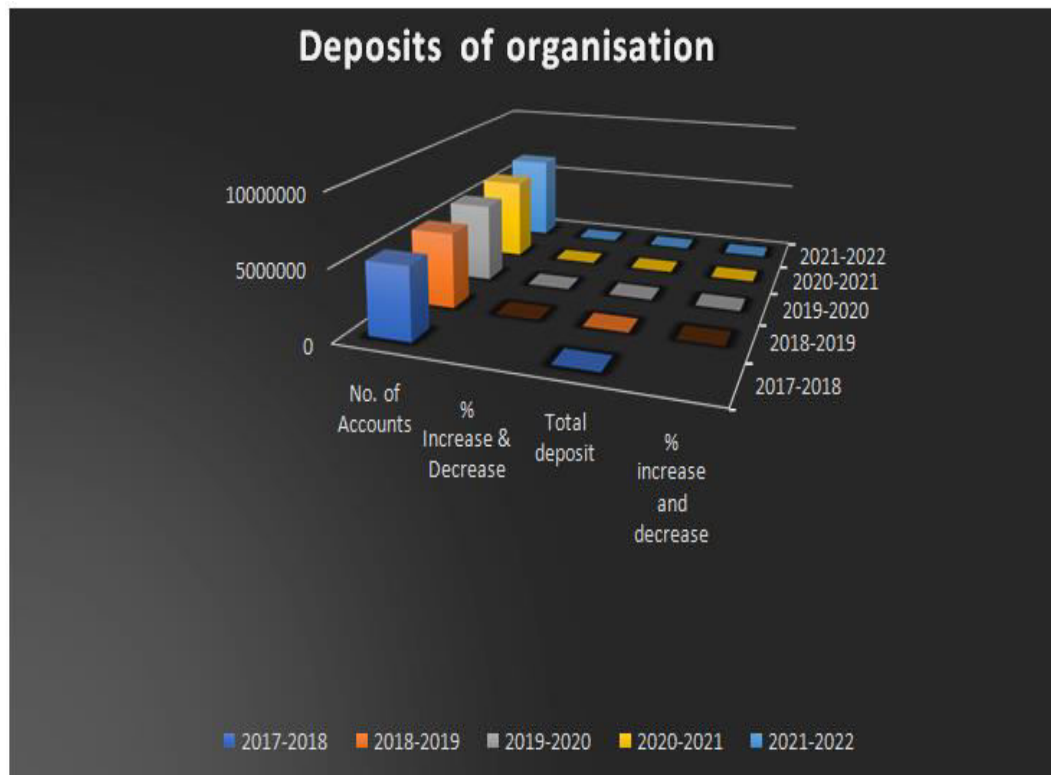
3) Deposits

Deposits are the base of financial strength and development of the bank. The banks have opened 5130336 lakhs, bank account in 2017-2018 and reached up to 6353691 lakhs in 2021-2022. The number of bank accounts have registered negative growth in 2020-2021. The study shown the positive and negative growth, however, the positive growth is not satisfactory. The total deposits of the bank have 1355645 (2017-2018) and increased up to 1853436 (2021- 2022). Growth of total deposits has reported negative growth from (2020-2021). On the average, the deposits increased by 8.2 % and CAGR recorded by 6.5%.

(Table: 5.3- Total Deposits of the bank in lakhs)

Year	No. of Accounts	Growth (%)	Total deposits	Growth (%)
2017-2018	5130336	-	1355645	-
2018-2019	5385110	5%	1454757	7
2019-2020	5685762	6%	1618912	11
2020-2021	5971691	- 5 %	1765236	(-)9
2021-2022	6353691	6%	1853436	(-) 5
AAGR	8.2%			
CAGR	6.5%			

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



(Source: Table 5.3)

5.3(1) TYPES OF DEPOSITS

According to Table 5.3(1) the average was recorded as, the Saving deposits have highest growth, followed by the fixed Deposits. The current deposits have negative growth. The overall growth of saving account is highest as compared to fixed and current deposits. The overall growth of current account is negative.

(Table: 5.3(1)- Types of Deposits of the bank in lakhs)

Year	Current Deposits	Growth (%)	Savings Deposits	Growth (%)	Fixed Deposits	Growth (%)
2017-2018	21984	-	722752	-	610910	-
2018-2019	21940	-0.20%	792306	9.62%	640511	4.85%
2019-2020	13028	-40.62%	856756	8.13%	749128	16.96%
2020-2021	19550	50.06%	971972	13.45%	773714	3.28%
2021-2022	14683	-24.90%	1034551	6.44%	804022	3.92%
AAGR (%)	-4		9		7	
CAGR (%)	-7.8		7.4		5.1	

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”

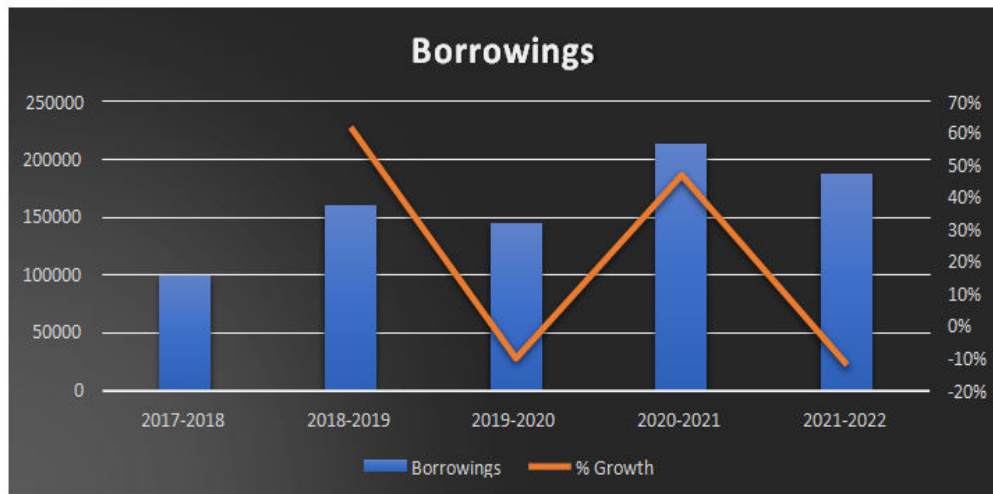
4) Borrowings Outstanding

The borrowings outstanding was highest in the year 213543.98(2020-2021) and lowest in 145022.89 (2019-2020). The bank has recorded those borrowings has been increased from 99220.67 (2017-2018) to 188177.77(2021-2022). The annual growth of borrowing is 13.7 % and compound average growth rate is 21.9 %.

(Table 5.4: - Borrowings Outstanding in lakhs)

Year	Borrowings	Growth (%)
2017-2018	99220.67	-
2018-2019	160906.7	62.17%
2019-2020	145022.89	-9.87%
2020-2021	213543.98	47.25%
2021-2022	188177.7	-11.88%
AAGR (%)	13.7%	
CAGR (%)	21.9 %	

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



Source: Table – 5.4

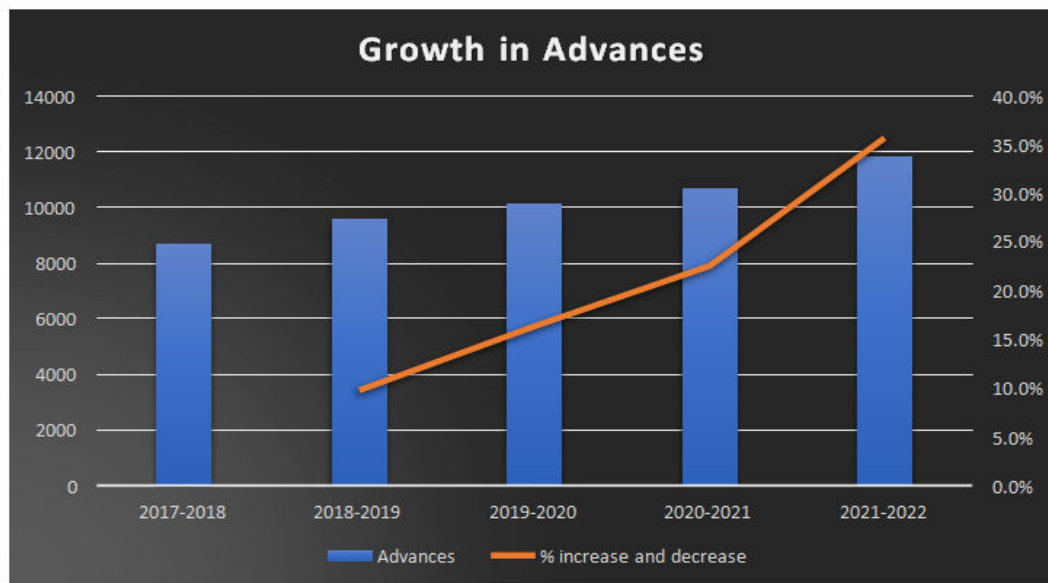
5) Advances

The table exhibits the advances of the banks has been increased with the period of time. The advances of the bank have been increased from 8716.49cr to 11834.76 cr. The growth has been registered during the year over previous year. There is positive growth in the advance of the bank. The average of the advances is 21.1 %, the compound average was recorded in 6.3% during the study period.

(Table 5.4 Advances of the bank in crore)

Year	Advances	Growth %
2017-2018	8716.49	-
2018-2019	9570.65	9.8%
2019-2020	10144.03	16.4%
2020-2021	10685.83	22.6%
2021-2022	11834.76	35.8%
AAGR (%)	21.1%	
CAGR (%)	6.3%	

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



Source :- Table:-5.4

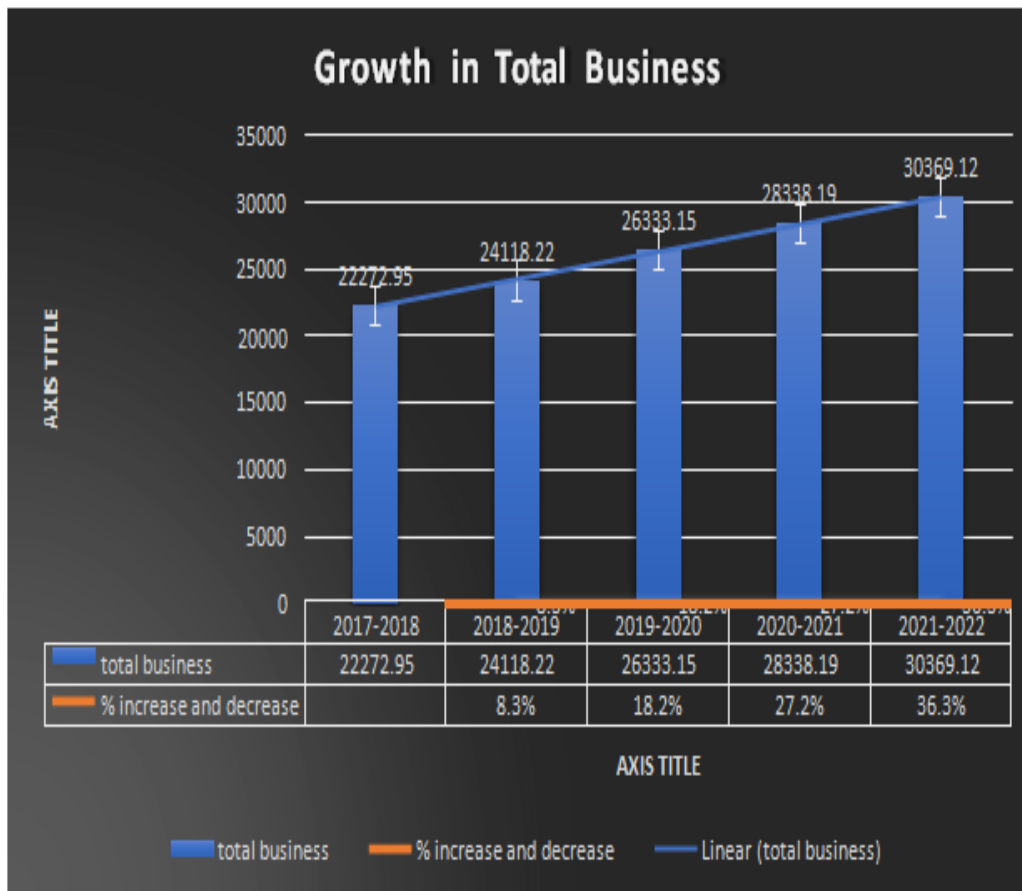
6) TOTAL BUSINESS

The total business of the bank has been increased from 22272.95 cr to 30369.12 cr. The positive growth has been registered over the year. The business was highest in 2021-2022 but the growth was recorded highest in 2019-2020. It has been observed that AAGR of total business is 8.2% and CAGR is 6.4%. The total growth of Total Business was declined from 8.3 % (2018-2019) to 7.2% (2021-2022).

(TABLE 5.6 Total business in cr)

Year	Total business	Growth (%)
2017-2018	22272.95	
2018-2019	24118.22	8.3%
2019-2020	26333.15	9.2%
2020-2021	28338.19	7.6%
2021-2022	30369.12	7.2%
AAGR (%)	8.1%	
CAGR (%)	6.4%	

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



Source: - TABLE: 5.6

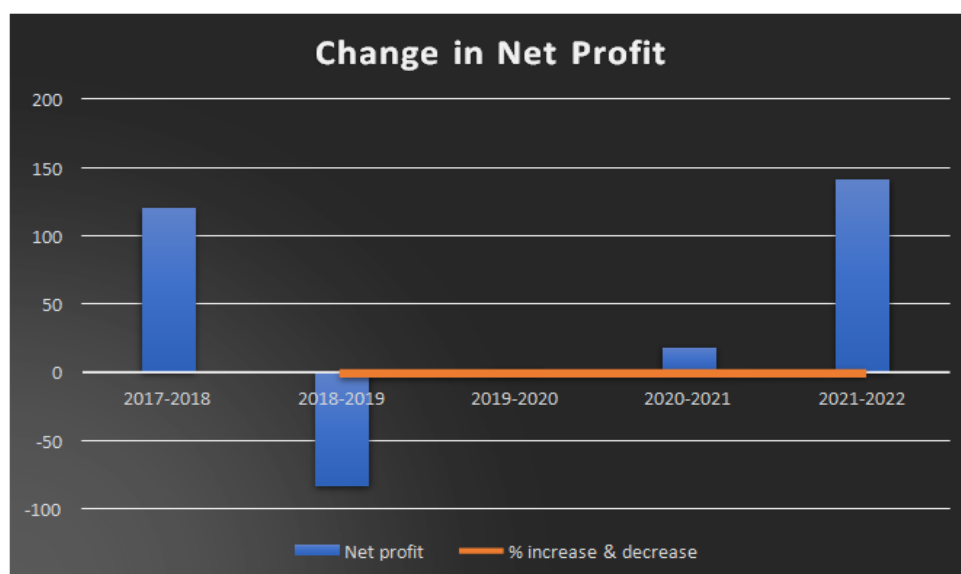
7) NET PROFIT

The Net profit of the bank has shown both negative and positive trend. The profit is high at initial year however, in the next year it has been negatively decreased. Slowly it starts increasing and reach to its highest during the study. Net profit of the previous year is not satisfied. It has reached from 120 cr (2017-2018) to 140.73(2021-2022) cr during the study. The average of net profit is 228% and CAGR is 3.2% during the study.

(Table 5.7 Net profit in cr)

Year	Net profit	Growth (%)
2017-2018	120	null
2018-2019	-83.03	-1.691916667
2019-2020	2.98	-0.975166667
2020-2021	18.3	-0.8475
2021-2022	140.73	0.17275
AAGR	228%	
CAGR	3.2%	

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



Source: - (Table 5.7)

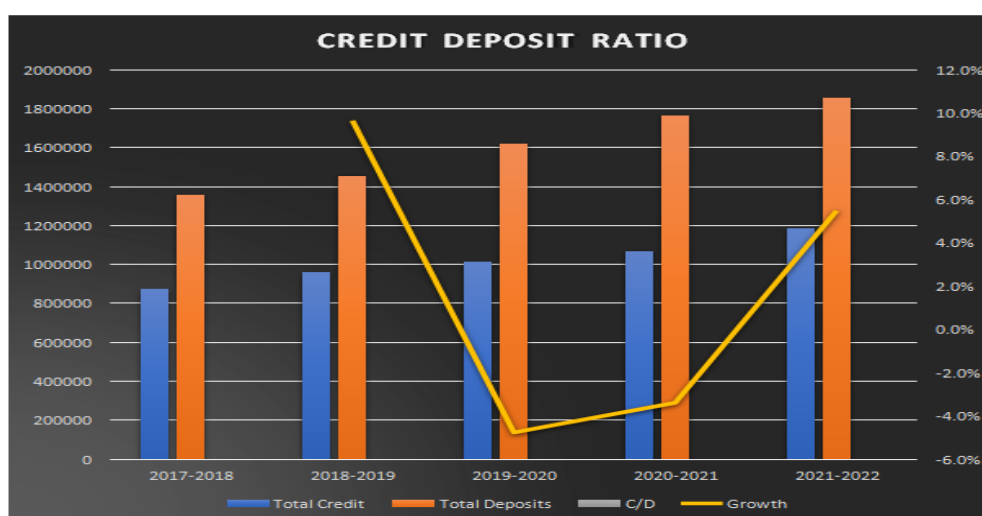
8) Credit Deposit Ratio: -

The credit deposit ratio of the bank specifies the conception of credit out of deposits mobilised by the bank which has been well-found in table 5.8. The credit deposit ratio has been decreasing which means the credit ratio to total advances has been declined from 0.643 (2017-2018) to 0.6385(2021-2022).

(Table 5.8 Credit Deposit Ratio)

sYear	Total Credit	Total Deposits	C/D	Growth (%)
2017-2018	871649	1355646	59.99%	-
2018-2019	957065	1454757	65.78%	9.65%
2019-2020	1014403	1618912	62.65%	-4.76%
2020-2021	1068583	1765236	60.53%	-3.38%
2021-2022	1183477	1853436	63.85%	5.48%

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



Source: - Table 5.8

9) NON-PERFORMING ASSETS: -

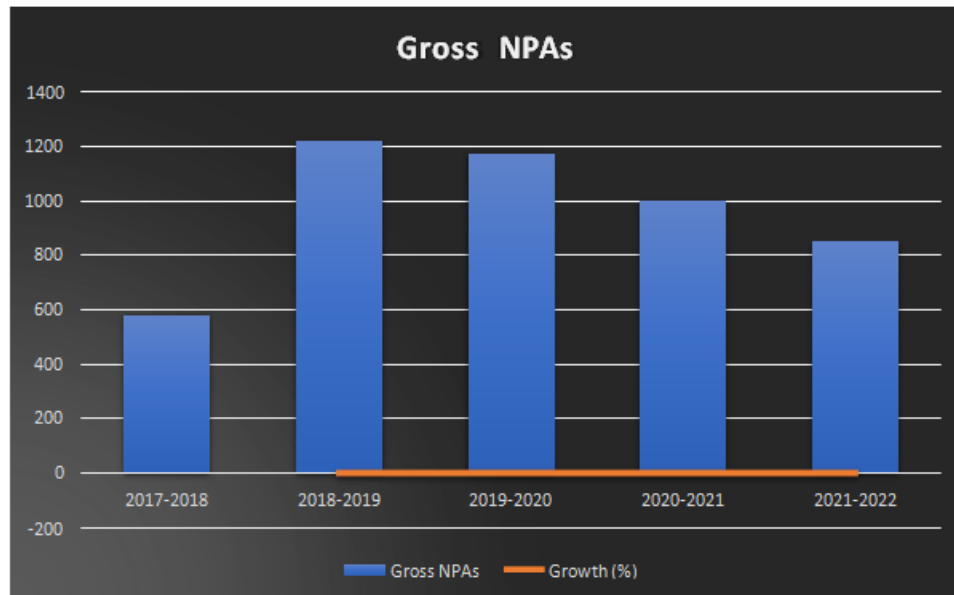
a) Gross NPA

The gross NPAs has shown the mixed trend during the study. In first two years the Gross NPA has increased but gradually over the year it has start decreasing. The AAGR of gross NPA is 19.1% and CAGR of gross NPA is 8.0%.

(Table 5.9(a)- gross NPA)

Year	Gross	Growth (%)
2017-2018	579.95	-
2018-2019	1217.68	110.0%
2019-2020	1173.4	- 3.6 %
2020-2021	998.55	-14.9%
2021-2022	850.45	-14.8%
AAGR (%)	19.1 %	
CAGR (%)	8.0%	

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



(Source: -Table 5.9)

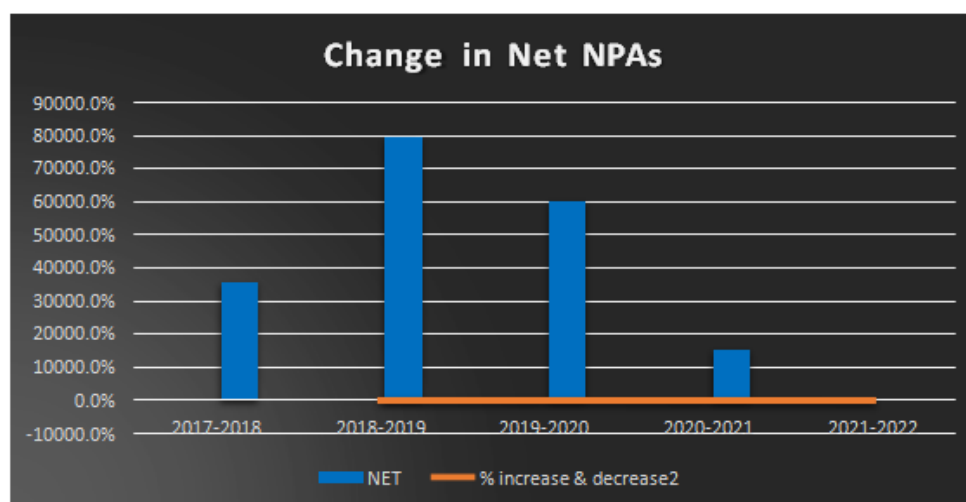
B) Net NPAs

The table exhibits that NPAs has increased during the second year, after this they start decline and reach to zero.

(Table 5.9(b) Net NPAs)

YEAR	NET	Growth (%)
2017-2018	357.13	-
2018-2019	796.55	123.0%
2019-2020	603.9	- 24.2%
2020-2021	151.44	- 74.9%
2021-2022	0	- 100 %
AAGR	19.0 %	
CAGR	-	

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



Source: TABLE 5.9(b)

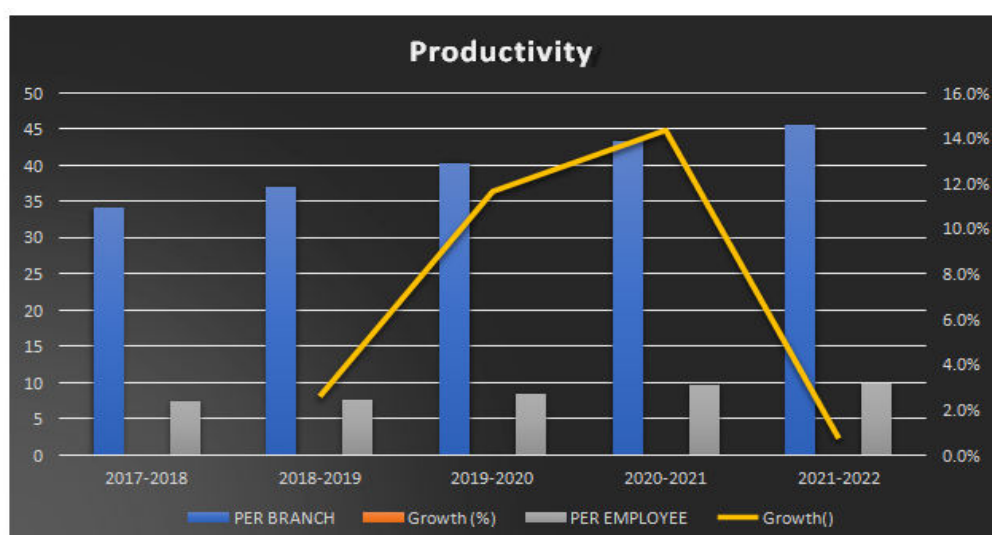
10) Productivity

The productivity of SHGB according to per branch and per employees has been improved. Productivity per branch has increased 34.11(2017-2018) to 45.46 in (2021-2022). The productivity per employee has also increased from 7.37% to 9.72 in 2021-2022.

(Table :5.10 Productivity) (In Crore)

Year	PER BRANCH	Growth (%)	PER EMPLOYEE	Growth (%)
2017-2018	34.11	-	7.37	-
2018-2019	36.88	8.1%	7.56	2.6 %
2019-2020	40.26	9.2%	8.44	11.6 %
2020-2021	43.33	7.6%	9.65	14.3%
2021-2022	45.46	4.99 %	9.72	6.7 %
AAGR (%)	62.6 %		5.7 %	
CAGR (%)	7.5 %		7.3 %	

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022”



SOURCE

11) Recovery Performance

“Table 5.12 highlighted that the demand for loans decreased from `6268.53 crore to `4824.95 crore and recovery from `5464.07 crore to 37291.19 crore during the study period. The number of over dues also increased from `804.46 crore to 1033.76 crore. The recovery performance of four years, in terms of percentage, has been 87.17% in 2017-2018, 90.76% in (2018-2019), 2019-2020(63.98%), 69.9 (2020-2021), 78.57% in 2021-2022.

(Source: -5.11, Recovery Performance) (In Crore)

YEAR	DEMAND	RECOVERY	OVERDUES	RECOVERY %AGE
2017-2018	6268.53	5464.07	804.46	87.17
2018-2019	7126.51	6468.2	658.31	90.76
2019-2020	3996.41	2557.03	1439.37	63.98
2020-2021	4253.27	2973.15	1280.12	69.9
2021-2022	4824.95	37291.19	1033.76	78.57

“Source: Compiled from Annual Reports of SHGB from 2018 to 2022” s

CONCLUSION

The study concluded with the findings that the performance of SHGB is not quiet influencing. The economy has been tremendously exaggerated due to COVID-19 Pandemic. The exertions made by SHGB in branch extension, deposit mobilization, rural development and credit deployment in weaker section of rural areas are not appreciable. SHGB successfully accomplish its key objectives like to take banking facilities and services to door steps mostly in banking underprivileged rural areas, to avail uncomplicated and low cost credit to rural section who are dependent on private lenders, to inspire rural peoples for savings, to produce employment in rural areas and to carry down the cost of providing credit in rural area. SHGBs play a significant role in rural areas with the objective of providing credit to small, marginal farmers & economically weaker section, for the growth of agriculture, trade and industry. However, still its commercial practicality has been questioned due to its inadequate business elasticity, smaller size of loan, low percentage of loan recovery & high risk in loan & advances. Gramin banks need to eliminate lack of transparency in their process which leads to inadequate relationship between banker and customer. In this digitization era SHGBs have to focus on speedy, qualitative and secure banking services to retain existing customers and attract likely customers.

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MORPHOLOGY OF PATNA CITY

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ABSTRACT

Cities are where civilisation first began. Cities serve as a barometer for the economic progress of a nation. Rapid development has significantly changed the natural terrain, which has had a negative impact on the ecology. In order to create a generalised land use map of Patna city, this study will examine how land use and land cover evolved in Patna from 2002 to 2018. The city of Patna had impressive infrastructure development from 2002 to 2018. The secondary data used in this work were obtained from Google Earth Images between 2002 and 2018. Measurements of the change in land use patterns have been made using visual interpretation and change detection methods. This land use scheme's classification is based on the 2006 third-level characteristics of the national Urban Information System. The recreational area has undergone the most alteration (234.15%), followed by public and semi-public areas (91.86). It demonstrates that deregulation has a significant effect on the growth of infrastructure. From 57.83 km² and 364,594 inhabitants in 1961 to 108.35 km² and 1,684,222 inhabitants in 2011, the city has expanded. Consequently, the city's residential area has increased from 44.40 km² in 2002 to 61.04 km² in 2018. A total of 84.53 per cent more open space has been added, with the remaining agricultural land, which made up 37.31 per cent of it, being set aside for future residential and recreational use. Over agricultural and open areas, the built-up area has grown. To examine the colonial land use in Patna City, a generalised land use map has been created.

Keywords: Morphology, Google Earth Image, Visual Interpretation, Change Detection, Generalized Map

INTRODUCTION

With the world becoming more urban, Urbanization is inevitable. In 2020, urban places contained 56.2 per cent of the world's population. This figure was 45.1 per cent in 1996 and 37.9 per cent in 1976 (U.N., 2020). Cities are now viewed as engines of global growth and Urbanization as an opportunity. According to U.N. Habitat (2020), despite occupying less than 2 per cent of total land, cities account for 80 per cent of world G.D.P., 78 per cent of global energy consumption, and produce more than 60 per cent of green gas emissions. World Bank Report (2019) anticipates annual garbage generation to rise by 73 per cent in 2020.

In India, the cities and towns are growing at an unprecedented pace. The level of Urbanization was 31.2 per cent in 2011. It has increased from 10.8 per cent in 1901, a threefold increase. However, it is massive when counted in numbers, with 377 million population habiting urban areas. At the same time, metropolises grew from 5 in 1951 to 53 in 2011 (Singh, 2014). In a federal structure, a particular position is enjoyed by the capital cities of different states and union territories.

The physical and natural realms and the human and social worlds are referred to as the environment, reflecting the collective history of human and physical geography. Morphology research has continued to pique people's curiosity across disciplinary lines. Morphology is defined as "shape or the study of form in its most basic structure," according to the Human Geography Dictionary (Gregory et al., 2009). Morphology studies the cultural, economic, social, and political processes that lead to the creation of forms. The term "urban morphology" literally means "the study of the physical shape of the city." Despite the connotation of the term

"urban," which refers specifically to cities, urban morphologists' contributions frequently pertain to human settlements in general (Kropf, 2009).

The study of urban shape, structure, and socio-cultural variables is included in urban morphology, recognizing that the urban form has both a physical and a socio-cultural aspect. "The two aspects of urban morphology, urban form and structure, as well as socio-cultural forces, are dialectically related; that is to say, the socio-cultural context should not be considered as the cause of physical changes, which would then be considered as the effects, but the change at the physical level will facilitate and possibly promote certain processes" (Etchegary and Rimoch, 1978).

Handerson (1997) a botanist, has referred to it as the science of structure and form of plants. Later, the term was used by other social sciences, such as geographers, to study human settlements.

Study Area

Patna, with an area of 108.35 km², gives shelter to a population of 20.07 million persons (2011) in its 75 Municipal wards. The average density of the population is 43,840 persons per km². The city is long and linear, shaped like a sword with a handle in the west and a point to the east (Pandey & Rai, 2017). It runs for above 12 miles in length and 3 miles in width. Since Patna is the capital of Bihar, it enjoys its regional significance. It houses local administration, Judiciary, and Legislature and is marked by educational, health, commercial, and other professional services. It is an important centre for trade and commerce for its nearby areas and the entire state.

Geographical Setting

Location

Patna city is located in the Patna district in the centre of Bihar. It lies about 290 miles (470 km) northwest of Kolkata (Calcutta).

Geographic coordinates

Latitude: 25° 35' 38.74" N

Longitude: 85° 8' 15.23" E

Elevation above sea level: 54.953 m = 180.29 ft

Coordinates in decimal degrees

Latitude: 25.594095°

Longitude: 85.137565°

Coordinates in degrees and decimal minutes

Latitude: 25° 55.645' N

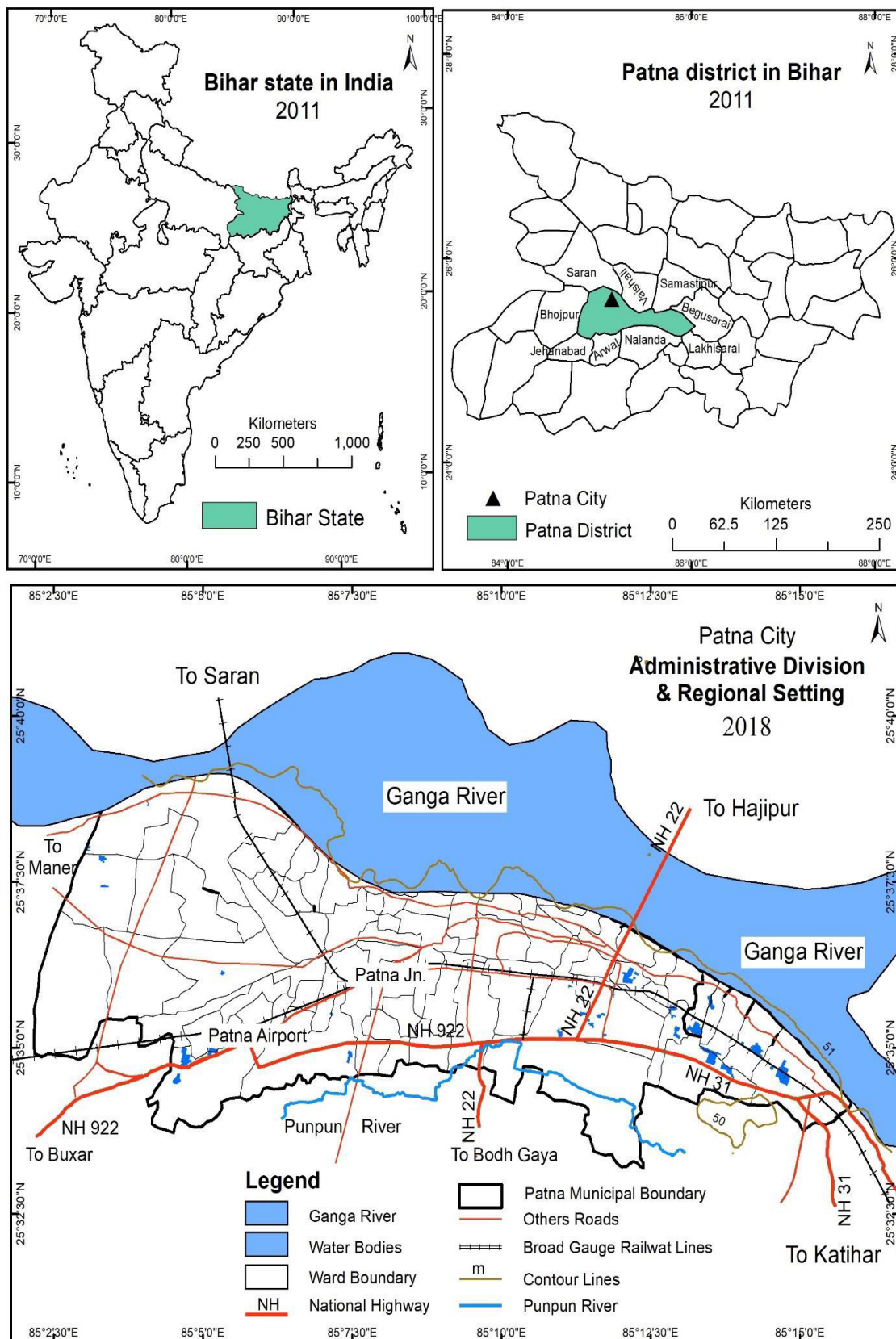
Longitude: 85° 8.254' E

UTM coordinates

UTM Zone: 45R

Easting: 312954.687035684

Northing: 2832046.7036955



Map 1: Location of the Study Area

OBJECTIVE

In order to create a generalised land use map of Patna city, this study will examine how land use and land cover evolved in Patna from 2002 to 2018.

DATABASE AND METHODOLOGY

The study of LULC changes is required to comprehend the dynamic phenomenon of urban growth, such as extension of built-up area and eventually leading to urban sprawl (Wang & Maduako, 2018). Various thematic layers were created using ERDAS envision and ArcGIS software. The entire process is shown in Figure 1. Using Google Earth images of 2018 and 2002 from Google Earth Explorer (USGS), the spatial-temporal disparities in urban expansion of Patna city was revealed. Other important information was acquired from town and country planning, the city's master plan, historical documents and other sources. The survey of India's 1:50,000 toposheet and guide map, as well as maps of municipal boundaries obtained from the Patna Municipal Corporation, were utilized to extract city land-use data. In this work, Google Earth photos from the public domain of USGS Google Earth Pro at a 1: 1000 scale were used for multilevel land use classification. Google Earth images were imported as tiles, which were geo-referenced and assorted in ERDAS IMAGINE software using the UTM projection, and then digitized in ArcGIS. A guide map of the city at 1:10000 scale was gathered from an India survey for aid in various time periods.

Land Use/Land Cover Classification

The present study will apply the National Urban Information System (NUIS) classification scheme for all land use studies. National Urban Information System, Ministry of Urban Affairs, 2006, established a uniform land use classification method at five hierarchical levels to generate land use maps. Below are the first three levels.

Table 1: Land-use/land-cover classification method at three levels

LEVEL – I		LEVEL –II		LEVEL –III	
1	Built-Up	1.1	Built-Up (Urban)	1.1.1	Residential
				1.1.2	Industrial
				1.1.3	Mixed Built-Up Area
				1.1.4	Recreational
				1.1.5	Public and Semi-Public
				1.1.6	Commercial
				1.1.7	Transportation
				1.1.8	Reclaimed Land
				1.1.9	Vacant Land
				1.1.10	Vegetated Area
		1.2	Built-Up (Rural)		
2	Agriculture	2.1	Cropland		
		2.2	Fallow Land		
		2.3	Plantation		
3	Forest	3.1	Dense Forest		
		3.2	Open		
		3.3	Plantations		
		3.4	Mangroves		
4.	Grazing Land				
5.	Waste Lands	5.1	Salt-Affected		
		5.2	Gullied Ravinous		
		5.3	Land With/Without Scrub		
		5.4	Barren/Rocky		

6.	Wet Lands	5.5	Sandy Area
		6.1	Marshy/Swampy
		6.2	Mudflats
		6.3	Water Logged
7.	Water Bodies	6.4	Salt Pans
		7.1	Rivers
		7.2	Canal
		7.3	Reservoirs
		7.4	Tanks
		7.5	Cooling Pond/ Cooling Pond
8.	Others	7.6	Abandoned Quarries with Water
		8.1	Quarry/ Brick Kilns
		8.2	Dam/Barrage
		8.3	Coral Reef/Atoll

Source: NUIS, 2006.

Table 2: Land-use/Land-cover classification scheme/description of land-use/land-cover Types in the study area

Land-use/Land-cover types	Brief description
Residential Area	Residential areas include single-family homes and multi-family houses. In addition, the mixed residential group, which consists of two or more of the above groups, is also featured. Residential areas are easily recognisable on aerial images by the forms and patterns of individual houses, housing developments, and multiple-story building complexes.
Industrial Area	This refers to an area covered. For example, land uses for manufacturing, assembling, or processing products are considered light or heavy industries.
Mixed Built-up	This category contains those urban or built-up regions for which particular uses cannot be distinguished at the mapping scale. When more than one-third intermixture of another service or benefits, an area is classified as mixed urban.
Recreational	Those sites that have been expressly constructed for leisure activities, such as a resort complex, gardens, public golf courses, and public-school grounds, are included in this category.
Public & Semi-public	Property presently owned or run by a public body or private institution, such as a railway station, bus stop, schools, jail, medical facilities, university, and other government institutions, is included in the public semi-public area.
Commercial area	Commercial areas contain primarily utilized structures to sell goods and services.
Vacant land	Included all available residential, industrial, and public lands. Non-agricultural land, open space etc.

Vegetated Land	Patches of natural forest, bushes, herbs, and plantations are examples of places covered by trees producing closed or almost closed canopies.
Agricultural Land	All areas are utilized primarily to produce food and fiber, and some of the structures connected with this production are included.
Water Bodies	All water bodies, including lakes, ponds, rivers, and others, have been included as they existed at the time of data collection.
Transportation	Roads are considered as a line feature for this study.

Source: Classified by Authors, 2018.

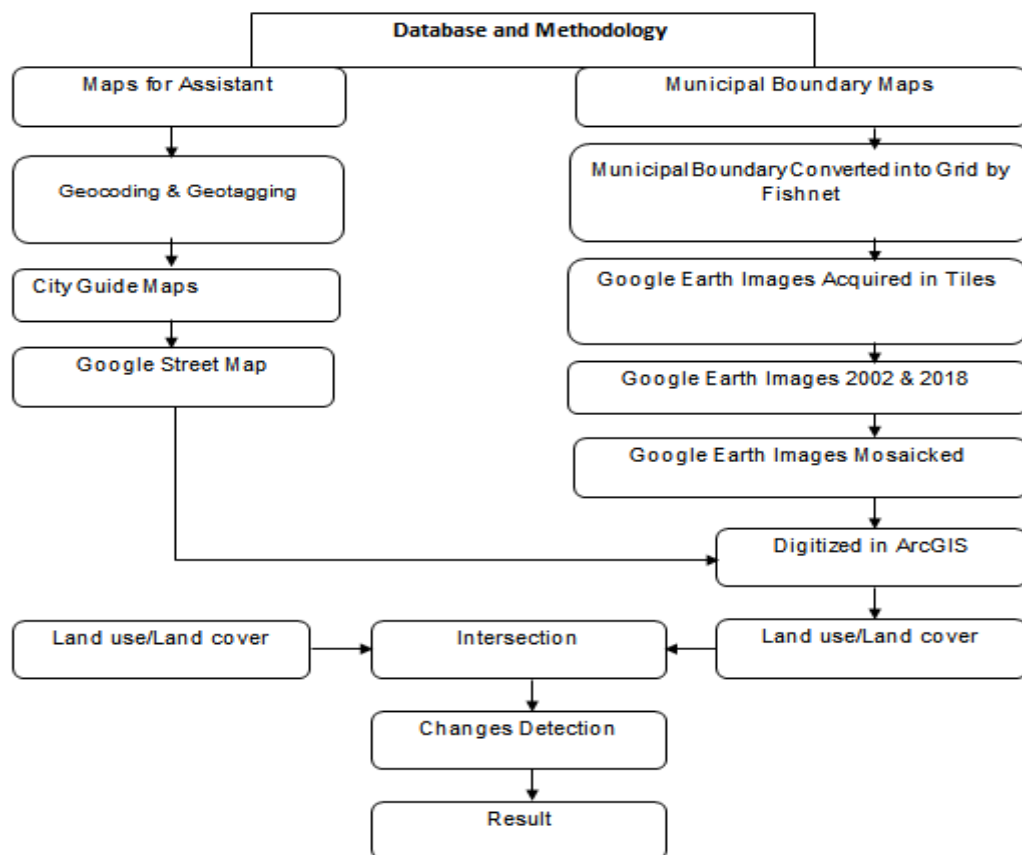


Fig. 1: Flow chart of Research Methodology

RESULT & DISCUSSION

Land Use/Land Cover: 2002-2018

Table 3 shows that in 2018, agricultural lands lost a significant amount of land. In 2018, agricultural lands accounted for only 8.10 per cent of total land use, down from 32.69 per cent in 2002. In 2018, the entire area under agricultural usage was only 10.16 square kilometers. On the contrary, Patna's residential areas have seen significant growth, accounting for 56.34 per cent of the city's land use. In 2018, residential areas took up roughly 71 km² of land. We analyze seven sets of requirements that influence residential land use patterns in the following analysis: (i) physical dwelling attributes; (ii) public service levels; (iii) location; (iv) amenities and

disamenities; (v) socio-economic characteristics; (vi) neighborhood design elements; and (vii) mixed land use measures in the area. Waste products in urban unoccupied land can be produced as a result of urban development and economic and industrial operations (Kim & Kim, 2012). Residential area subsequent abandonment, demolition, and decentralization resulting from demographic change. Urban sprawl, de-industrialization, and people's preferences for new residential choices create vacancies (Johnson, Hollander, & Hallulli, 2014; Kremer, Hamstead, & Mc Phearson, 2013), become "urban voids" or negative spaces in the urban fabric. Vacant land occupies the second most significant area in the city, covering 13.79 km² and accounting for over 11 per cent of the total area. Vacant land design, planning, and management have been modest in the short and long term, ignoring a precious resource. This research aimed to identify and construct a usable typology of urban unoccupied land that would aid planners, developers, and citizens in making better use of these spaces. In 2018, the public area was the third most crucial land-use type, covering 11.68 km² (9.19 per cent) of the total area.

Regarding area, agricultural lands have fallen to the fourth leading land-use group. The industrial and mixed built-up and public areas cover about 4 km² (See fig. 2 and 3). The percentage of land surrounded by vegetation in the city is deficient, accounting for less than 2 per cent of total land cover. In addition, water bodies in the city cover 1.18 km², or less than 1 per cent of the entire area.

Table 3: Land use and Change Pattern in Patna City: 2002-2018

Land Use Classes	2002		2018		Change: 2002-2018	
	Area (In Km ²)	%	Area (In Km ²)	%	Area (In Km ²)	%
Residential Area	44.40	40.98	61.04	56.34	16.64	37.48
Industrial Area	2.77	2.56	3.54	3.27	0.77	27.64
Mixed up Land	2.45	2.26	3.56	3.29	1.12	45.58
Recreational Area	0.89	0.82	2.97	2.74	2.08	234.15
Public- Semi Area	5.19	4.79	9.96	9.19	4.77	91.86
Commercial Area	2.80	2.58	3.85	3.55	1.05	37.60
Vacant Land	8.37	7.73	11.90	10.98	3.52	42.04
Vegetated Land	4.42	4.08	1.72	1.59	-2.70	-61.03
Agricultural Land	35.42	32.69	8.78	8.1	-26.64	-75.22
Water Bodies	1.64	1.51	1.03	0.95	-0.61	-37.09
Grand Total	108.35	100	108.35	100	0.00	0.00

Source: Calculated by Authors based on Google Earth Image, 2002 & 2018.

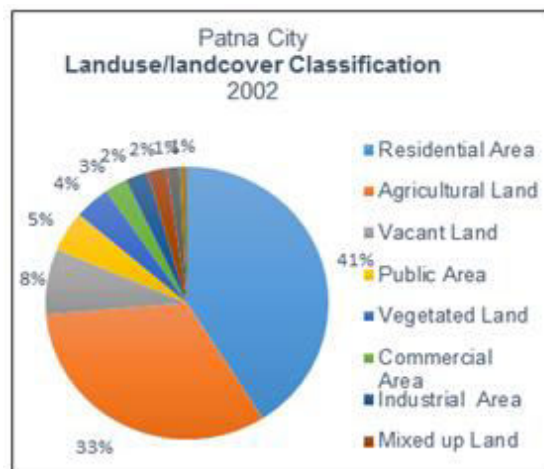


Fig. 2

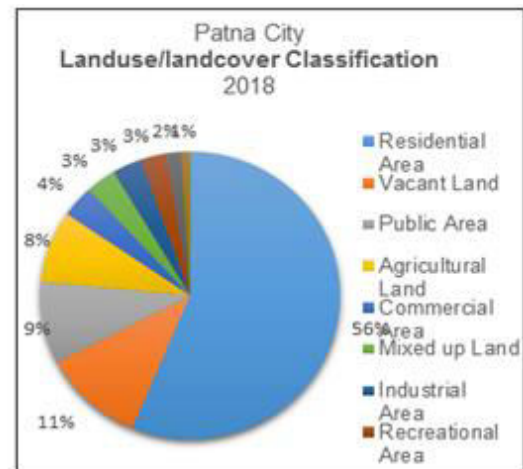
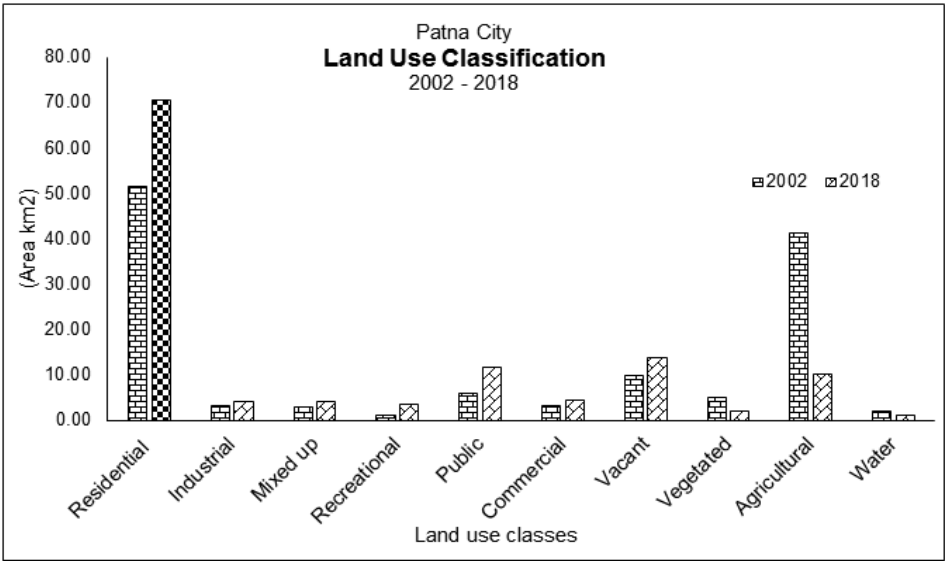
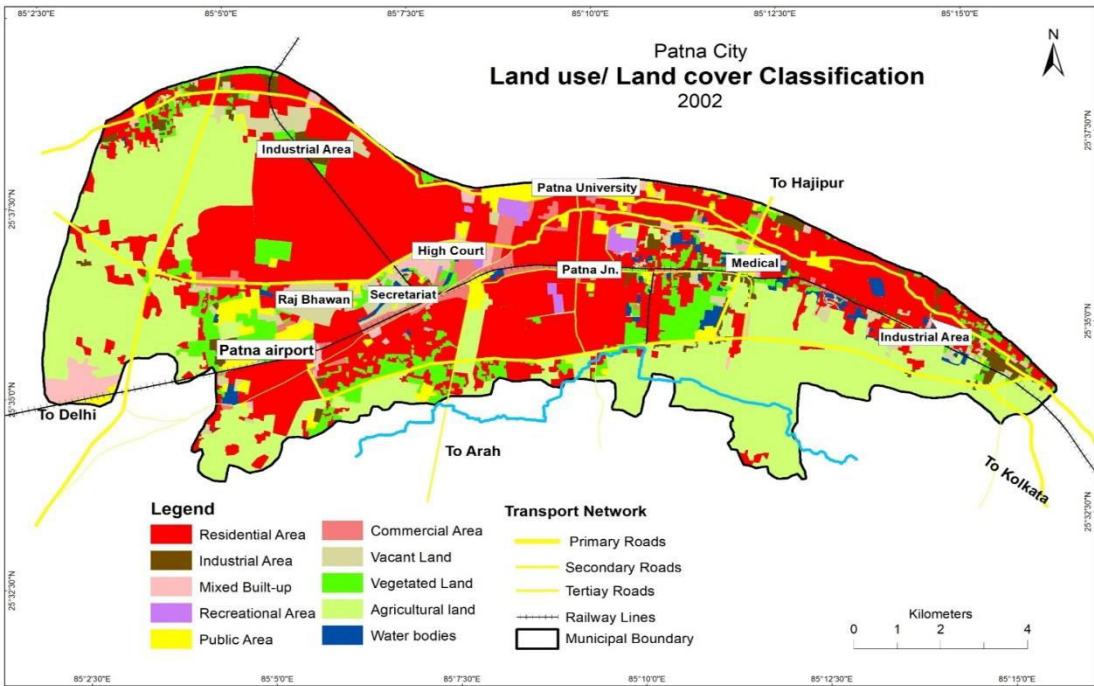


Fig. 3

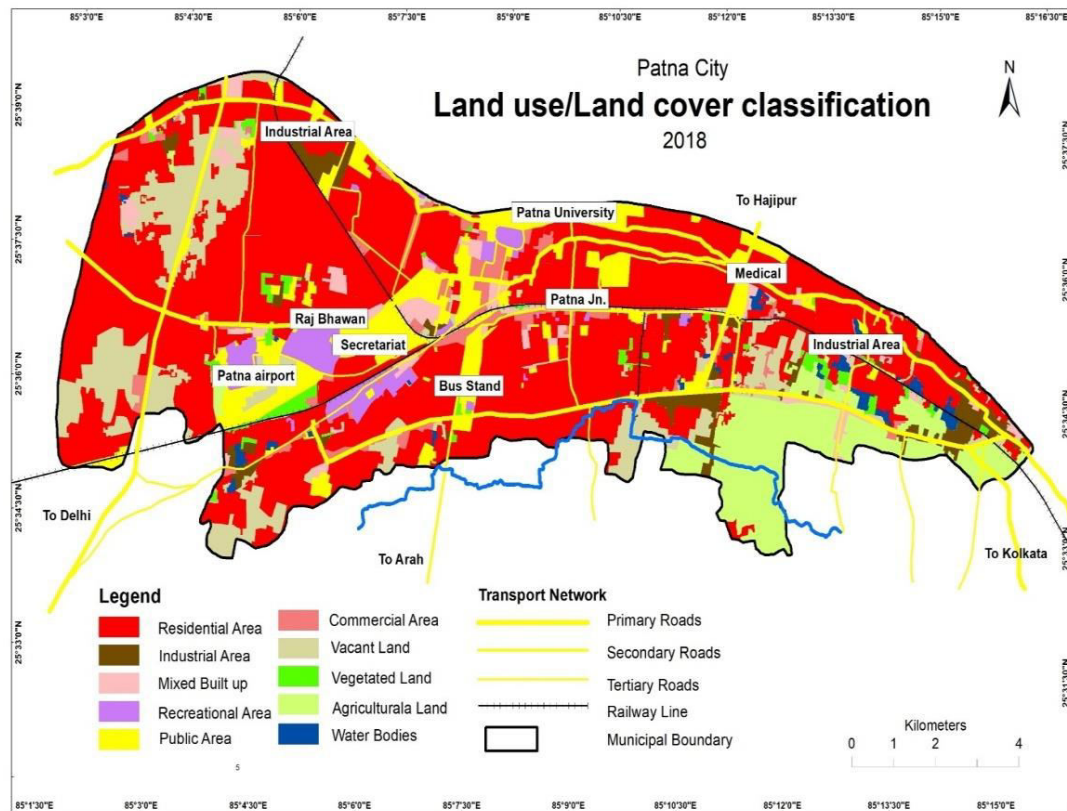
Fig. 4



Source: Calculated by Authors.



Map 2



Map 3

Land Use/Land Cover Change Analysis

Administrative urban function predominates in Patna as it is the capital of Bihar. Since the completion of Mahatama Gandhi Setu, the growth in the city accelerated with a considerable number of houses and colonies emerging in various areas of the city, housing large numbers of working people and students from all over Bihar and neighboring states (Kumar, 2015). Natural growth rates undoubtedly drive this rapid population increase. Still, it is mainly influenced by increasing in-migration, which has altered not just Patna's existing socio-economic conditions but also its horizontal expansion (Kumar & Yadava, 2018).

Patna enjoys a favorable geographic location in the center of Bihar's Ganga plain. Patna is well connected to the rest of the region via several modes of transport. The functional specialization of the city has dramatically shifted over time from a trade and commerce center to an administrative center to the latest health and education center. Its uncontrolled, spontaneous, and unplanned growth has resulted in the overlapping and intermixing numerous land uses over a lengthy period (Mishra & Rai, 2016). Except in recently planned regions, the city's unplanned growth has resulted in the establishment of mixed land use in most places.

The city of Patna is gradually expanding its municipal boundaries to fulfill the growing population's demands. In 2018, the residential area expanded by 15.31 per cent (19.25 km²). Patna's city limits have been growing south and west (Khan et al., 2021). In 2018, various Southwestern colonies developed in the city, including Geetanjali, Sunder Nagar, Narayan Vihar, Budha Colony, and Rajendra Nagar. However, between 2002 and 2018, the industrial area grew by 0.89 km², accounting for only 0.70 per cent of the overall land area. The city of Patna has lately noted the emergence of certain industrial regions in the south, such as Sarrofganj and Masoorganj. Because of the transformation into public and semi-public spaces, the city's vegetated land has shrunk by 2.49 per cent.

Residential use is undoubtedly the most prominent land-use class in Patna, according to an analysis of land use patterns in the city in 2002. On the other hand, agriculture has a substantial presence in the city, making it the second most prominent land use. Residential and agricultural lands account for 72 per cent of the city's land use, with residential areas covering 51.52 km² and agricultural lands accounting for 41.10 km². Vacant land is the third most common land-use class, accounting for 9.72 km² or 7.73 percent of the total area.

All the other land use classes constitute less than 5 per cent each, where vegetated land and public area are more prominent. The vegetated land covers a total area of 5.13 km² (4.08 per cent), and the general area covers 6.02 km² (4.79 per cent). The industrial area covers only 3.21 km² in Patna city, accounting for less than 3 per cent of the total area. Mixed built-up land, recreational area, and commercial area cover 7 km².

Between 2002 and 2018, agricultural land use has been contracted drastically. In 2018, agricultural land accounted for only 8.10 per cent of total land use, down from 32.69 per cent in 2002. In 2018, the entire area under agricultural usage was only 10.16 square kilometers. On the contrary, Patna's residential areas have seen significant growth, accounting for 56.34 per cent of the city's land use. In 2018, residential areas covered 71 km² of land. Vacant land occupies the second most significant area in the city, covering 13.79 km² and accounting for over 11 per cent of the total area. Numerous design professionals and academics are increasingly interested in the potential given by unoccupied urban land, especially in planning and design, because there are many options to regenerate vacant land in terms of ecological and social value (Kim & Kim, 2012). In 2018, public space was the third most crucial land-use type, covering 11.68 km² (9.19 per cent) of the total area.

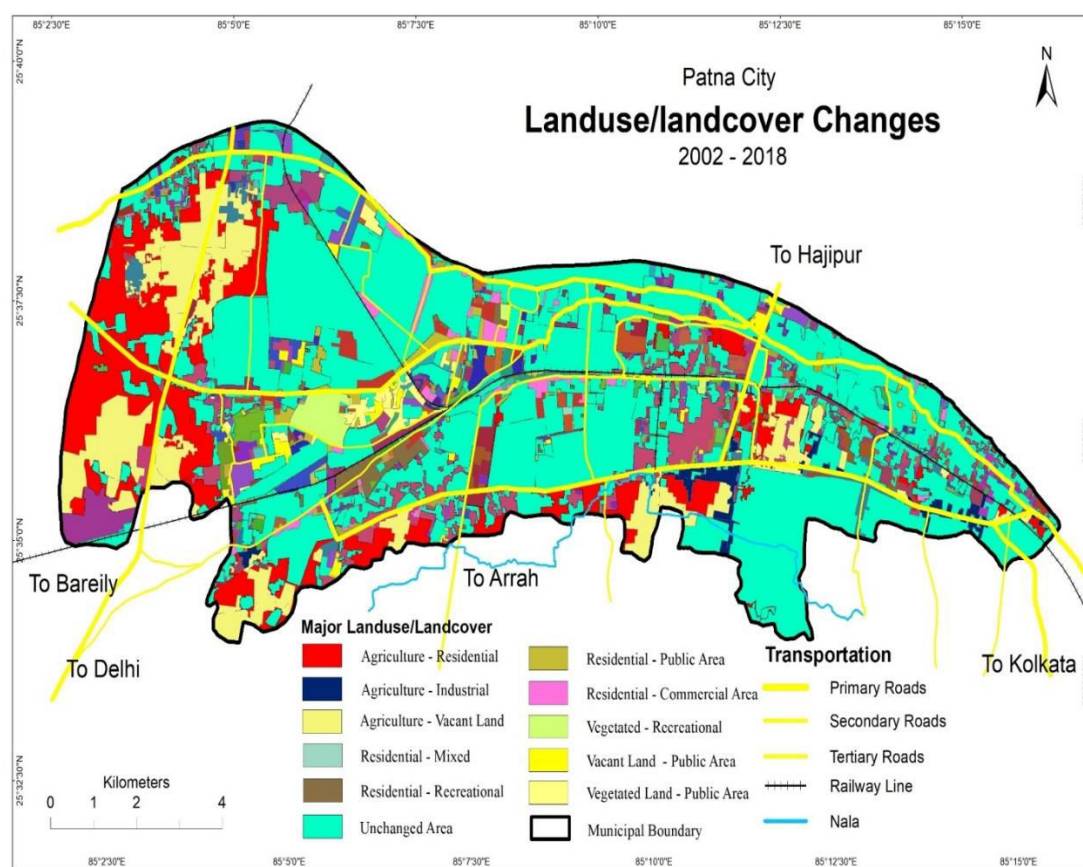
Regarding area, agricultural lands have fallen to the fourth land-use group: the industrial, mixed built-up, and the public regions each cover about 4 square kilometers. The percentage of land covered by vegetation in the city was deficient in 2018, accounting for less than 2 per cent of total land cover. In addition, water bodies in the city cover 1.18 square kilometers or less than 1 per cent of the entire area. Between 2002 and 2018, there was a notable shift in land use, with substantial agricultural lands converted to predominantly residential usage. The area of vegetated land and water bodies has also decreased. The expansion in residential areas at the expense of previously agricultural regions indicates the necessity for residential facilities (Seto, Parnell & Elmqvist, 2013). Between 2002 and 2018, 19 km² of agricultural land was converted for other land uses, while 30.94 km² of agricultural land was added to residential areas. The extent of public places has grown by 5.66 square kilometers, as has the area of vacant lands, which has grown by more than 4 square kilometers. The industrial regions, however, have increased by less than 1 per cent. Other land-use groups, such as mixed built-up, recreational and commercial, have expanded marginally, adding 5 square kilometers. The characteristic feature of change between 2002 and 2018 is the loss of agricultural lands with consequent expansion of residential areas (See Table 4 & 5).

Table 4 : Land Use Change Detection Matrix: 2018 (Area In Km ²)											
Land use: 2002	Residential	Industrial	Mixed up	Recreational	Public	Commercial	Vacant	Vegetated	Agricultural	Water Bodies	Grand Total
Residential	38.81	0.39	1.32	0.92	1.12	1.39	0.22	0.13	0.02	0.07	44.40
Industrial Area	0.59	1.04	0.08	0.00	0.73	0.17	0.08	0.03	0.05	0.00	2.77
Mixed up Land	1.43	0.03	0.26	0.04	0.35	0.23	0.09	0.02	0.00	0.00	2.45
Recreational	0.04	0.00	0.04	0.29	0.49	0.02	0.00	0.00	0.00	0.00	0.89
Public Area	0.38	0.13	0.14	0.34	3.88	0.23	0.04	0.05	0.00	0.01	5.19
Commercial	0.88	0.06	0.34	0.07	0.46	0.87	0.05	0.08	0.00	0.00	2.80
Vacant Land	4.39	0.34	0.19	0.14	1.07	0.39	1.02	0.56	0.20	0.07	8.37
Vegetated Land	1.36	0.18	0.16	0.97	1.02	0.07	0.19	0.36	0.03	0.06	4.42
Agricultural	12.58	1.32	0.94	0.16	0.67	0.43	10.06	0.41	8.45	0.40	35.42
Water Bodies	0.57	0.05	0.10	0.02	0.17	0.05	0.16	0.07	0.04	0.41	1.64
Grand Total	61.04	3.54	3.56	2.97	9.96	3.85	11.90	1.72	8.78	1.03	108.35

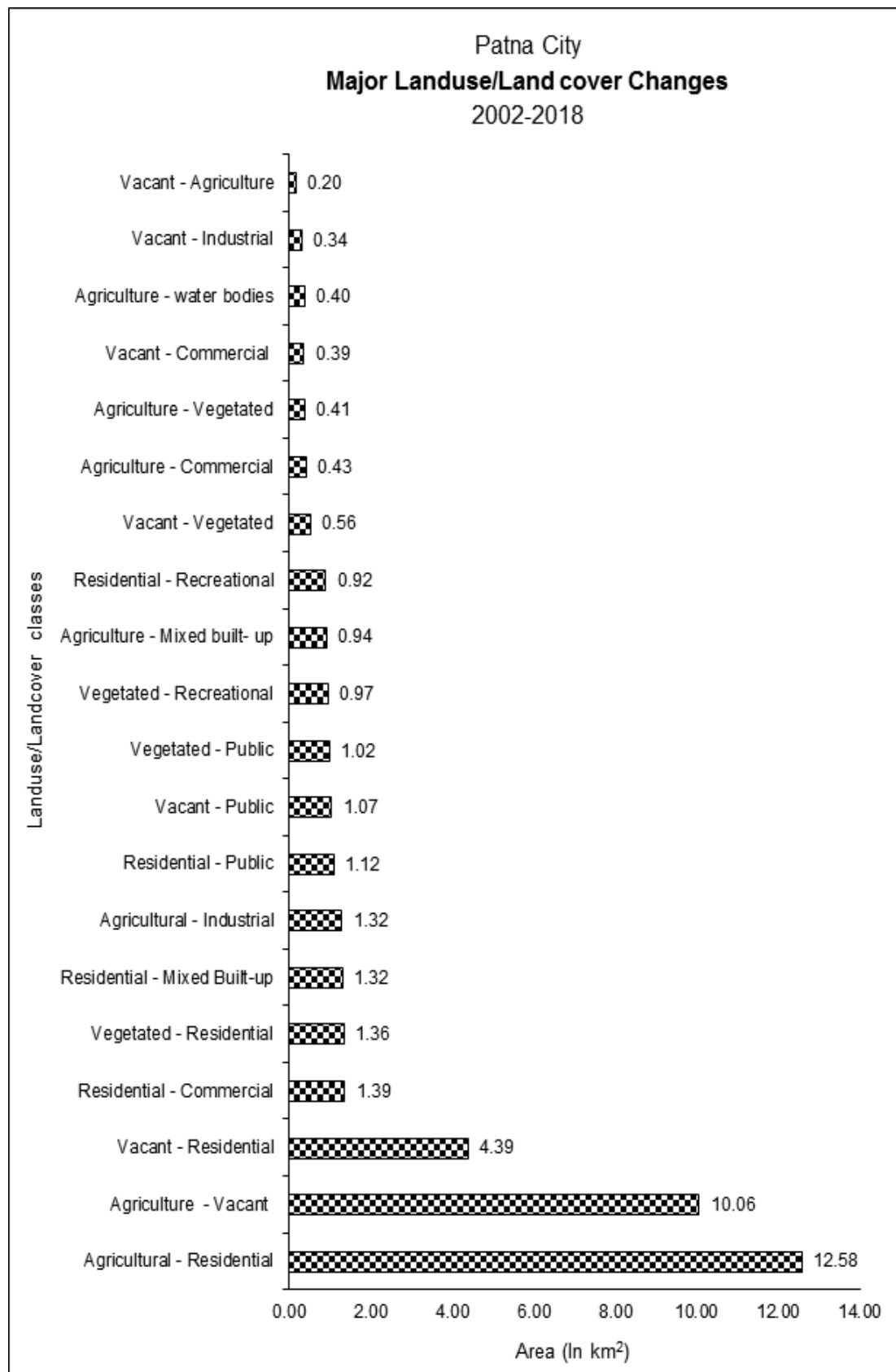
Source: Calculated by Authors based on Google Earth Image, 2002 & 2018.

Land use: 2002	Residential	Industrial	Mixed up	Recreational	Public	Commercial	Vacant	Vegetated	Agricultural	Water Bodies	Grand Total
Residential Area	63.58	11.04	37.17	31.12	11.25	36.49	1.89	7.71	0.24	6.49	40.98
Industrial Area	0.97	29.34	2.22	0.05	7.33	4.25	0.64	1.97	0.52	0.19	2.56
Mixed up Land	2.34	0.86	7.16	1.41	3.53	5.89	0.74	1.12	0.03	0.14	2.26
Recreational Area	0.07	0.00	1.15	9.89	4.90	0.47	0.00	0.00	0.00	0.00	0.82
Public Area	0.62	3.62	3.81	11.53	38.93	4.85	0.32	2.76	0.02	1.16	4.79
Commercial Area	1.44	1.60	9.45	2.37	4.65	22.28	0.40	4.58	0.00	0.16	2.58
Vacant Land	7.20	9.70	5.29	4.66	10.72	10.32	8.53	32.83	2.23	6.78	7.74
Vegetated Land	2.23	5.22	4.56	32.76	10.29	1.61	1.63	20.77	0.33	6.03	4.08
Agricultural Land	20.61	37.31	26.47	5.50	6.68	12.47	84.53	23.91	96.23	38.81	32.69
Water Bodies	0.94	1.31	2.72	0.71	1.72	1.37	1.32	4.35	0.40	40.24	1.51
Grand Total	100	100	100	100	100	100	100	100	100	100	100

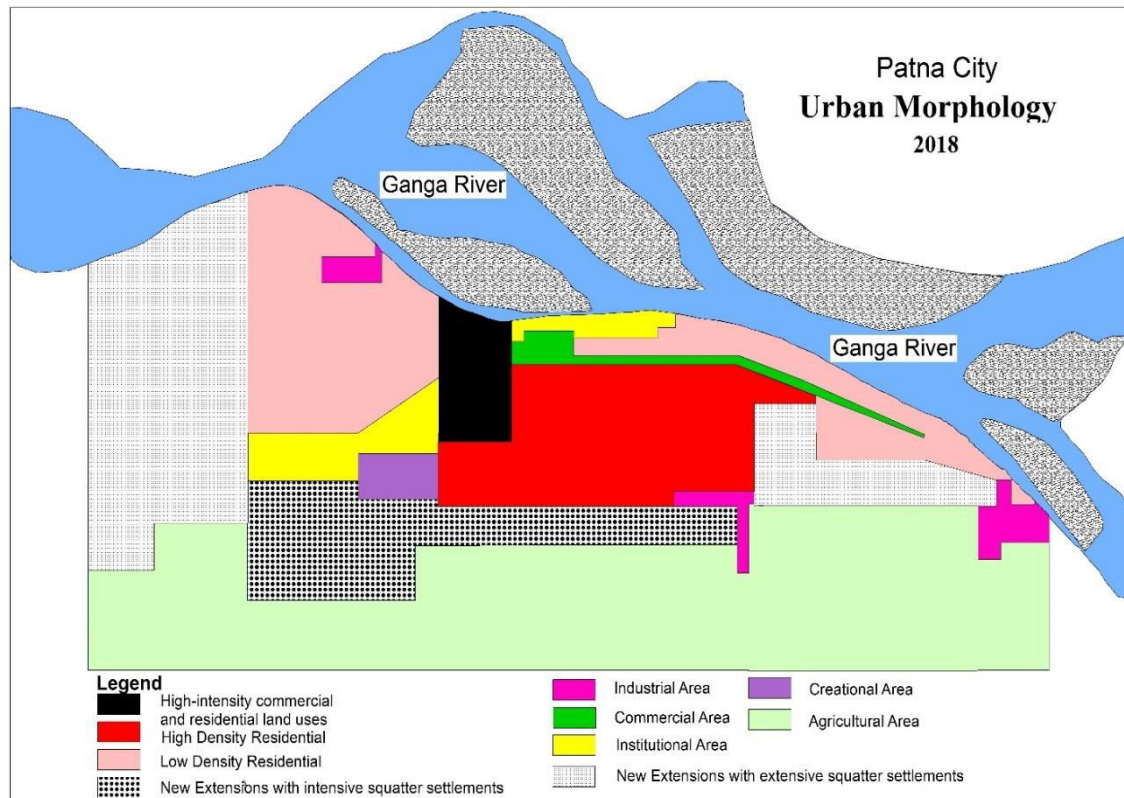
Source: Calculated by Authors based on Google Earth Image, 2002 & 2018.



Map 4



Source: Calculated by Authors.

Fig. 4

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FAST FOOD CONSUMPTION AMONG COLLEGE STUDENTS AND THEIR ATTITUDE TOWARDS HEALTHIER FOOD OPTIONS

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ABSTRACT

The aim of this research is to examine the demographics of college students and establish a link between the dependent variable (fast food preference behaviour) and the independent variables (taste, convenience, advertisement, and eating habits). A total of 200 undergraduates from different streams, including finance, marketing, and human resources, participated in this survey. The KMO and Bartlett tests were used in this study for the analysis of total variance. The study's findings show that rather than being influenced by a consumer's age or gender, fast food consumption is strongly influenced by their taste and available funds. Fast food consumption is rising quickly despite the fact that it is bad for human health in the long run. Our findings show the factors that attract these college students towards fast food are convenience, brand name reputation, and taste, but they neglect the cost and quality of the eatables.

Keywords: Eating habit, Health issues, Food quality, Junk food, Fast food.

I. INTRODUCTION

Burgers, sausages, and pizza are samples of sustenance. The terms “junk food” and “fast food” are frequently interchanged. “Junk food” may be a term to describe food that’s high in calories from sugar and/or fat, and possibly also sodium, but with little dietary fiber, protein, vitamins, minerals, or other important varieties of nutritional value. It’s also referred to as HFSS food (high in fat, salt and sugar). “Fast food” is described as food that has been prepared previous time or that has been prepared quickly and should be received from self-serve locations without having to attend.

The growing number of projects and tasks, university students' study time has grown. As a result, the number of fast food enterprises and restaurants has increased dramatically. The prevalence of obesity and diabetes mellitus in adolescents and adults is rising worldwide, as is the risk of gestational diabetes in their children. Many studies have found strong positive relationships between the availability of fast food and the amount of fast food consumed, as well as between fast food intake and poor health. Over the last three decades, the number of university students eating fast food has climbed fivefold. Furthermore, obesity, which is one of the most important

Availability, low prices, menu options, flavor, and taste are all reasons for rising fast food consumption. Fast food is consumed daily by around 30% of youngsters and more than 50% of university students. Obesity and poor diet among young people have been linked to increased food consumption and significant changes in eating habits in recent years.

With a significant emphasis on "speed of service," fast food is produced and made accessible by restaurants or retailers and is presented as a well-kept product. In addition, the phenomenon of needing to eat out from home has grown and become more apparent. At more convenient sites, such as those near schools, hospitals, petrol stations, markets, terminals, and others, new fast food establishments are opened.

The popularity of fast food is demonstrated by society's intense interest in its consumption. They may quickly enter international markets by utilizing a variety of globalization tactics. According to study, it's critical for students to pay attention to their diets since it has an impact on their physical and mental health development.

This study looks at the eating habits, motivations, and opinions of university students who frequently eat fast food. This study is extremely important for defining fast food consumption patterns, preference factors, and target consumption based on the aforementioned behaviors and formulating business strategies for food industry players.

Nutrition is the use of all energy and nutrition components in the most cost-effective manner and in the quantities required for growth, development, and a healthy and economical existence, without compromising their nutritional value or making them unhealthy. Modern nutrition is different from that of other eras. It is believed that socioeconomic, cultural, environmental, demographic, and psychological variables number eleven influences a society's eating patterns. Personal mode influences consuming behaviors, namely decisions about how to spend money, time, and energy four. Lack of time due to technological advancements, urbanization, and women's employment, long workdays, single living, and the connection of women to social and economic life has increased the need for fast food.

Fast food consumption replaces traditional dining during the hurried lunch hour in metropolitan living. Eating out eliminates hunger and offers enjoyment, entertainment, time-saving benefits, social interaction, and psychological support. Fast food nutrition, which is regarded as an activity by kids and teenagers and quickly becomes a common habit, includes either too little or too much nutrients. As a result, it contributes to the development of chronic illnesses like cancer, diabetes, obesity, and heart disease.

This study looks at the eating habits, motivations, and opinions of university students who frequently eat fast food. This study is extremely important for defining fast food consumption patterns, preference factors, and target consumption based on the aforementioned behaviors and formulating business strategies for food industry players [1-6].

II. LITERATURE REVIEW

1. The old economic scenario of Indian society was not the same as the current condition. Home prepared meals were preferred by the majority of Indian consumers. In contrast, today's modern dining culture is fast transforming Indian society's thinking. Fast food has been popular for quite some time. In today's fast-paced world, where expenses are steadily rising, all members of the family must work to make ends meet [7].
2. The authors investigate the elements that influence fast food intake as well as the consequences of excessive fast food consumption. The predicted association between fast food intake and obesity in children and adults, as well as the nutritional profile of most fast food menus, are the sources of public health concern with fast-food marketing. The conceptual framework is intended to comprehend how fast-food marketing influences parents' behaviors in relation to their children's eating habits in a way that promotes the development or maintenance of obesity in their children [8].
3. People primarily visit nutriment restaurants for get-togethers, gatherings, and to understand the meal's style." It absolutely was discovered that there's a high correlation between the price of assorted nutriment merchandise and therefore the range of times shoppers visit nutriment institutions. The study additionally disclosed that "customer acceptableness of fast food outlets' food is very important for his or her rising" [9].
4. We employed convenience sampling. In comparison to menu variety, prompt food service, food presentation attractiveness, and innovation in fast food, the results show that fast food customers place a high value on food taste, healthy food and nutritional value of the food, hygienic food service, reasonable pricing, food safety, and other food services. The goal of this study is to look at the elements that influence fast food outlets and to analyze the food quality gaps in fast food [10].

5. A nutritious diet is essential for reducing non-communicable illnesses including type 2-diabetes and obesity. All age groups, even young adults, can attest to this. Although studies have shown that young adults, particularly university students, have harmful eating habits, current health promotion programmes have disregarded this population. Our goal was to investigate the food consumption of university students at baseline, typical obstacles to healthy eating, and changes in eating habits following enrollment [11].

III. RESEARCH METHODOLOGY

A form was made to conduct a survey highlighting the consumption of nutrients in students. Survey has been conducted with 15-30 age groups. The queries were given to the respondents through a Google form. Responses of the involved persons had been completely analyzed. Conclusions had been arrived after victimization of information and responses collected from the Respondents.

RESEARCH DESIGN

The research design refers to the framework of research approaches and strategies used by a researcher. Researchers can focus on acceptable research procedures for the topic at hand and can build their study on success. The following are illustrations of research designs:

EXPLORATORY RESEARCH DESIGN

We used descriptive research design in this study.

DESCRIPTIVE RESEARCH DESIGN

A population's or phenomenon features are described via descriptive research. It does not explain when, how, or why the features developed. Instead, it answers the "what" question (i.e., what are the traits of the group or circumstance being researched). In this study, we could not determine why students perceived the questions this way. The study is descriptive in nature because it just presents the respondents' thoughts.

SURVEY

Survey was conducted via Google forms. **SAMPLE SIZE**

The sample size has been two hundred students of 15-30 age teams. Conclusions had been arrived at by using the responses.

Sampling Technique Are:

- Convenience sampling technique is employed during this study.
- Convenience sampling could be a style of non-probability sampling that involves the sample being drawn from that a part of the population that's getting ready to hand. In different words, this sampling technique involves obtaining participants where you'll be able to realize them and generally where it is convenient.

DATA COLLECTION METHOD

Primary data- The primary data has been collected from the questionnaire that was filled out by 200 respondents and an analysis on the same has been done in this work.

OBJECTIVES OF THE STUDY

1. To find out the demographic profile of the college students.
2. To seek out the connection between dependent variables and independent variables of the study.

IV. DATA ANALYSIS AND INTERPRETATION

AGE-

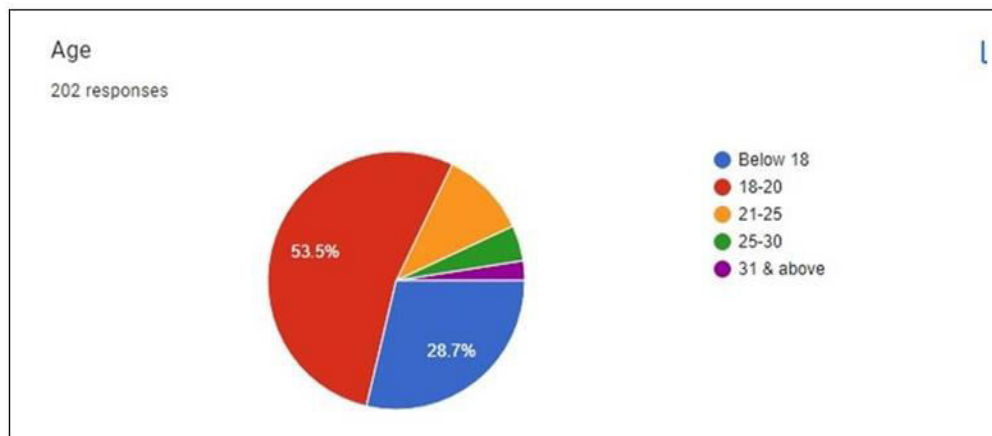


Fig: 1 Graph of age

INTERPRETATION:

As it is evident in the above chart, the most of the respondents i.e., 53.5% are in the age group of 18-20 years.

GENDER-

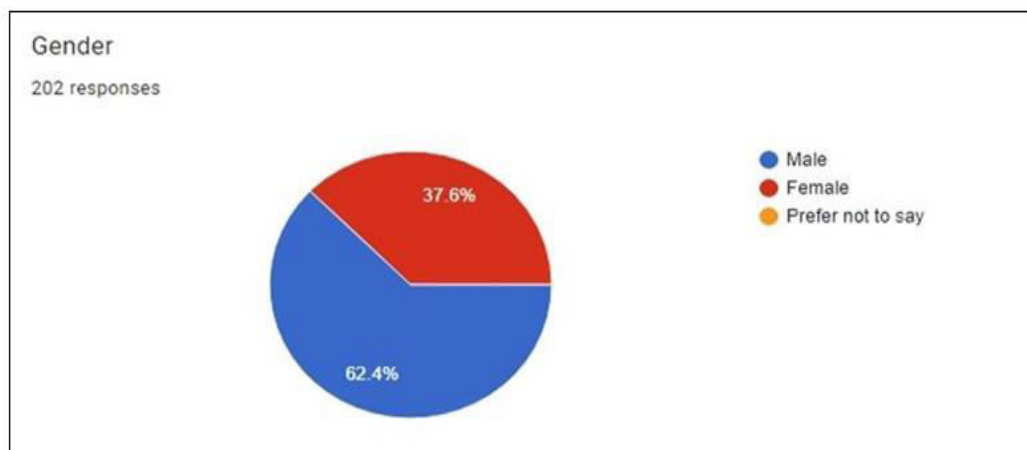
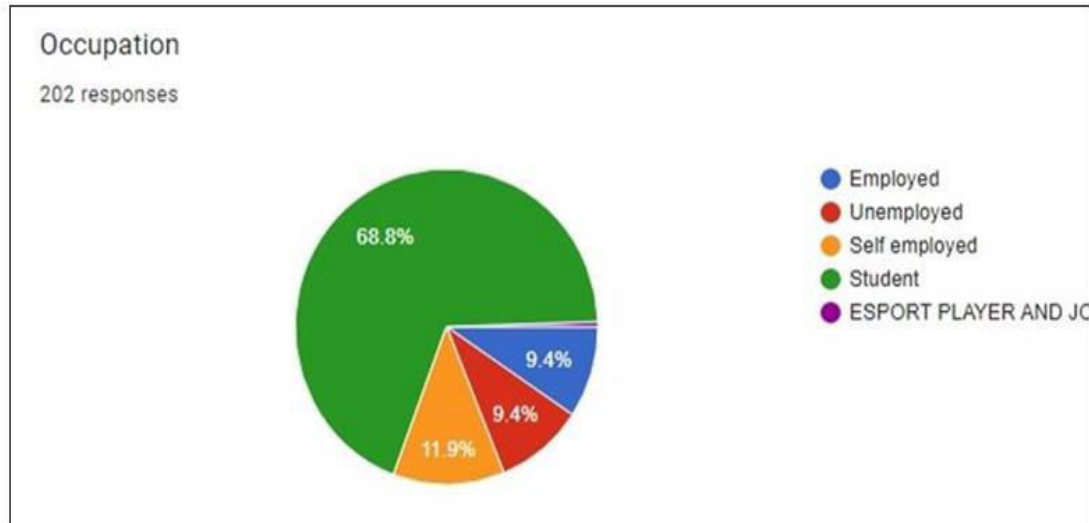


Fig: 2 Graph of gender

INTERPRETATION:

The above pie chart clearly states that 62.4% of the respondents are male and 37.6% are female respondents.

OCCUPATION-**Fig: 3** Graph of occupation**INTERPRETATION:**

As it is evident in the above chart, that most of the respondents i.e., 78.8% are students. Thus, mostly students consume fast food.

STATISTICAL TOOL

In this work, the SPSS tool is used for implementation.

KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin (KMO) check is employed in analysis to see the sampling adequacy of knowledge that are to be used for correlational analysis. Social scientists typically use correlational analysis to make sure that the variables they need not to live a selected idea measure the idea meant. Bartlett's Test of Sphericity compares a spotted correlation matrix to the identity matrix.

Primarily it checks to examine if there's a particular redundancy between the variables that we are able to summarize with a number of numbers of things. The null hypothesis takes a look at is that the variables square measure orthogonal, i.e., not related to.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.500
Bartlett's Test of Sphericity	Approx. Chi-Square	196.279
	df	36
	Sig.	<.001

Fig: 4 KMO and Bartlett's Test**INTERPRETATION:**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy – This measure varies between zero and one, and values nearer to 1 are better. Kaiser-Meyer-Olkin = 0.500.

Bartlett's Test of sphericity – This checks the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is a matrix in which all the diagonal elements are 1 and all of the diagonal elements are 0. You want to incompetent this null hypothesis.

Communalities		
	Initial	Extraction
age	1.000	.702
gender	1.000	.564
occupation	1.000	.730
Doyouconsume fast food	1.000	.821
How often do you consume fast food on weekly basis	1.000	.775
Do you have a fixed meal time that you follow	1.000	.663
Do your family members also consume fast food	1.000	.584
I exercise and workout to keep myself healthy	1.000	.519
Do you have any of these health conditions	1.000	.190

Extraction Method: Principal Component Analysis.

Fig: 5 PCA: Communities

Total Variance Explained						
Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.823	20.253	20.253	1.823	20.253	20.253
2	1.513	16.813	37.066	1.513	16.813	37.066
3	1.155	12.836	49.902	1.155	12.836	49.902
4	1.057	11.739	61.641	1.057	11.739	61.641
5	.989	10.984	72.625			
6	.840	9.328	81.953			
7	.750	8.334	90.287			
8	.555	6.162	96.449			
9	.320	3.551	100.000			

Extraction Method: Principal Component Analysis.

Fig: 6 PCA: Total Variance Explained

Taken along, these tests offer a minimum normal that ought to be passed before an element analysis (or a principal parts analysis) ought to be conducted. Communalities indicate the common variance shared by factors with given variables. Higher communality indicated that a larger amount of the variance in the variable has been extracted by the factor solution. For better measurement of factor analysis, communalities should be 0.4 or greater.

Component Matrix^a

	Component			
	1	2	3	4
age	.252	.692	-.053	.396
gender	-.061	.395	.635	-.035
occupation	.423	.455	-.533	.243
Doyouconsume fast food	.868	-.060	.221	-.124
How oftendoyou consume fast food on weekly basis	.820	-.123	.143	-.260
Doyou have a fixed meal time that you follow	.025	-.429	-.045	.690
Doyour family members also consume fast food	.331	-.457	.248	.451
I exercise and workout to keep myself healthy	-.194	.273	.576	.273
Doyou have any of these health conditions	-.058	-.430	.007	-.042

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Fig: 7 Component Matrix

The Total column offers the number of variances within the original variables accounted for by every element. The Eigenvalue table has been divided into two sub-sections, i.e., Initial Eigenvalues, Extracted sums of squared loadings. Here one should notice that the first factor accounts for 20.253% of the variance, second 16.813%, third 12.836% and the fourth 11.739%. All the remaining factors are not significant. Table below shows the loadings (extracted values of every item under 2 variables) of the ten variables on the 2 factors extracted. The higher absolute value of the loading, the more the factor contributes to the variable. I've extracted three variables wherein the 9 items are divided into 4 variables consistent with most vital items which have similar responses in component 1 and simultaneously in component 2, 3 and 4.

V. FINDINGS

1. Convenience

"Convenience" has been recognized as the key component. According to an analysis of factor loadings, "time" has the biggest impact on consumption. Young consumers claimed that because they are on the go so frequently, fast food Always rushing and short on time. Taste used to be the primary factor in decision-making consumers' dietary preferences. Consumers appreciate fast food businesses because of their convenient locations, quick turnaround times, and flexibility.

2. Brand Name Reputation

The second extracted element, "brand name reputation," is able to account for the overall variation. This characteristic suggests that young consumers give the brand name and its associations a lot of attention. Strong, well-known international brands of fast food restaurants were preferred by many respondents in terms of quality and trust.

3. Cost

The "cost" component is denoted by the third factor. Because they are students on a tight budget, young customers claim that the price of a meal significantly affects their choice of fast food establishment. Young customers can easily control their spending by going out for inexpensive meals. Because of this, they consider fast food restaurants to be profitable investments.

4. Consistency

A focus of the fourth extracted component is "consistency." The uniformity of fast food restaurants is achieved by developing a formula for each of their items. The ingredients that are used, the assembly line built to combine those ingredients, and the training provided to the people working the assembly line are all examples of how that formula is expressed.

5. Quality

The issue with very cheap impact is "quality". The operations of worldwide alimentation chains follow a bunch of dietary and promoting rules set by varied cultures and governments around the world. Young shoppers appear to possess this information and it affects their alimentation eating house preferences. They believe that these international brands have higher quality standards, do a lot of analysis, use prime quality ingredients and work a lot on delivering healthier meals.

V. CONCLUSION

In this paper, the demographics of college students are examined. Fast food preference behavior is considered as dependent variables. For the independent variables, authors chose taste, convenience, advertisement, and eating habits. Total 200 undergraduates' students from different fields, including finance, marketing, and human resources participated in the survey via questionnaire survey. The main goal of this research is to study the food habits among college students and to find factors and facts regarding fast food consumption among youth. Our findings suggest that the knowledge, attitude, and degree of practice of fast food intake among students with normal weight and those who are overweight or obese were not substantially different. Study was done on the basis of age, occupation and gender.

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IMPACT OF EXCESSIVE WORKLOAD ON THE WORK-LIFE BALANCE OF POLICE PERSONNEL IN KARNATAKA

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ABSTRACT

Policing is a stressful job wherein, the workforce, performing duties in such stressful environments will be exposed to traumatic events and chronic stress in their line of duty. Irrespective of designations, policemen experience a lot of physical and mental health issues, addictions, extreme stress and pressure, excessive workload and life-threatening situations. Several studies state that the work culture and constant stressful environment faced by the policemen make them victims to smoking and alcohol addictions. Despite the power and possession, policing is content of all such negative elements and yet there is still no permanent cure for the issues.

Theories of Management suggest that there is always a solution for every problem in hand. The researchers, in this study emphasize on the inculcation of managerial aspects in the Police work culture. This study is focusing on the assessment of influence of excessive workload on the work-life balance practices of Karnataka State Police (KSP). The current study also emphasizes the positive outcomes of an effective managerial education in maintaining a healthy work-life balance among the Police Professionals. The researchers have attempted to enlighten the importance of efficient human resource management practices to safeguard the personal and professional aspects of Police personnel. The findings of the study showcase the numerous advantages of efficient managerial training and education in handling excessive workload and efficient balancing skills to enhance healthy work-life balance practices among the Police personnel in Karnataka.

Keywords: Work-life balance, Karnataka Police, Workload, Stress.

INTRODUCTION

Karnataka was formerly called as the Mysore State until 1973, later the princely state was renamed to Karnataka state on 1st November, 1973 (Ghori, 2010). During the rule of Maharajas of Mysore, until 1965, policing did not exist in a hierarchical manner, instead policing was in existence with different names such as *Talwars*, *Thotis*, *Neeragantis*, *Kavalugararu*, *Amaragararu*, *Ankamaale*, *Patela*, *Shyanubhogas*, etc. Sri. L. Rickets has the fame of being appointed as the first Inspector General of Police in the history of Mysore state. Today, the State police has grown to be a big and complex organizational structure which is run on modern management principles. (Karnataka State Police, n.d.).

Initially, policing was just the job of protection and safeguarding the law & order in the province but in modern days, policing is just not the of protection but also prevention. Preventing crimes and unlawful activities before they happen is the prime responsibility of police personnel. Technology is a two-edged sword which when stuck, cuts from both sides. Over the last decade, the state has witnessed a drastic change in hotel-industry, IT sector, SSIs, construction and development agencies, human resources, innovation and technology-based start-ups and more. Optimistically, this is an appreciable economic progress in the province but pessimistically, the increase in economic activities has also increased the population in the state. Increase in population proportion is substantively related to the crime rates (Chamlin &

Cochran, 2004). As per this study, it was proved that population proportion was positively related with the increase in the crime rates. Therefore, it can be noted that any increase in the population proportion in any given province, then the workload or duty responsibilities of police personnel shall be increased.

REVIEW OF LITERATURE

Boyanagari, Boyanagari, Shankar, & Ayyanar (2018) have analyzed the data related to Police officers in India, particularly in the state of Andhra Pradesh, to find out the essence of Police personnel as an important occupational group who constantly work under stressful situations. They have also investigated on data related to preventive programs in the government organizations and studies on occupational stress among these Police officers. Through their study, they have concluded that it is very essential to develop an adequate evaluation of occupational injury and illness among Police officers. The prevalence of a hazard surveillance system for tracking the same must be monitored. Also, the association between chronic diseases and mortality should be considered.

Bindu, Nethravathi, & Pai (2016) have elucidated the training programs, methods and rewards. In their study, researchers have enlisted various training institutes in located Karnataka for the purpose of Police training. They have disclosed the various infrastructure facilities available at training centers. Overall research shows that the training for the recruits included computer-based training, physical training in both indoor and outdoor activities, training in crime detection and prevention, map reading and plan drawing, First aid, intelligence and also induction training, refresher training and pre-promotion training for Police officers who are in service.

Yawalkar & Sonawane (2016) have determined their work in identifying the challenges involved and factors affecting the work-life balance of Police personnel in Jalgaon. Apparently, the data is collected from 30 sample respondents to assess the researcher's assumption and the obtained result demonstrated that general working hours of a Police personnel is not fixed to a certain limit thereby being the primary source of stress and dissatisfaction. The researcher, through a thorough analysis states that the Job profile of a Police personnel is the major challenge in rationing adequate time for family and personal care. In addition, the researcher suggests that the development and implementation of a proper policy with respect to the Police personnel will assist in maintain a healthy work-life balance among the Police Officers.

Statement of the Problem

A healthy work-life balance is very essential for every individual irrespective of the profession. Physical and mental health of an individual employee is dependent on the satisfaction level of that particular employee with respect to their work-life balance (Kausar, 2016). Policing is a stressful job as it is content of physical and mental stressors. Work environment is content of various factors that influence the work-life balance of police officers such as long working hours, excessive workload, peer pressure, superior pressure, multiple tasks, lack of public support and trust, workplace conflicts, family conflicts and much more. This study particularly studies the influence of workload of on the work-life balance of KSP. The Official portal of the KSP disseminates the total number of cases registered every year throughout the state. The data disclosed showcases only the number of registered cases but the problem exists in solving those cases within the allotted time frame which might as well be subject to the external or superior pressure.

OBJECTIVE OF THE STUDY

The current research attempts to study the influence of excessive workload on the work-life balance practices of KSP.

RESEARCH METHODOLOGY

The researchers have collected data from the secondary sources such as statistical information available at the official portal of Government of Karnataka (GoK) and KSP. Data of the previous five years, i.e., from 2017-2021, have been collected through the official portal and the same has been further analyzed to interpret the results. The data available at the source discloses month-wise statistical report which has been summarized and consolidated by the authors as per requirement.

Abbreviations Used:

KSP – Karnataka State Police; GoK – Government of Karnataka; IPC – Indian Penal Code; SLL – Special & Local laws.

DATA ANALYSIS AND INTERPRETATION

Police are the first line responders for any uneventful incidents, criminal activities, public safety, VIP gatherings, law & order maintenance and so on. In their line of duty, they may encounter situations that are perilous, life threatening, mentally disturbing and also publicly disapproving. Being a cop is not as simple as any other jobs, as it involves problems in both workplace and personal space. The prime responsibility of any police personnel is to protect law & order in the society.

Currently, the Karnataka State Police is functioning on seven different ranges namely Belagavi (Northern), Mysuru (Southern), Mangaluru (Western), Davanagere (Eastern), Bengaluru (Central), Kalaburgi (North-Eastern), Ballari (Ballari) wherein, each range covers a minimum of three districts. KSP is also functioning under seven different wings namely '*Law & order wing, Intelligence wing, Crime & Technical services wing, Police Computer wing, Criminal Investigation Department, Karnataka State Reserve Police, Communication, Logistic and Modernisation wing*'; to safeguard the law enforcement within the province.

Table 1: Table showing the number of crimes in Karnataka (District-wise)

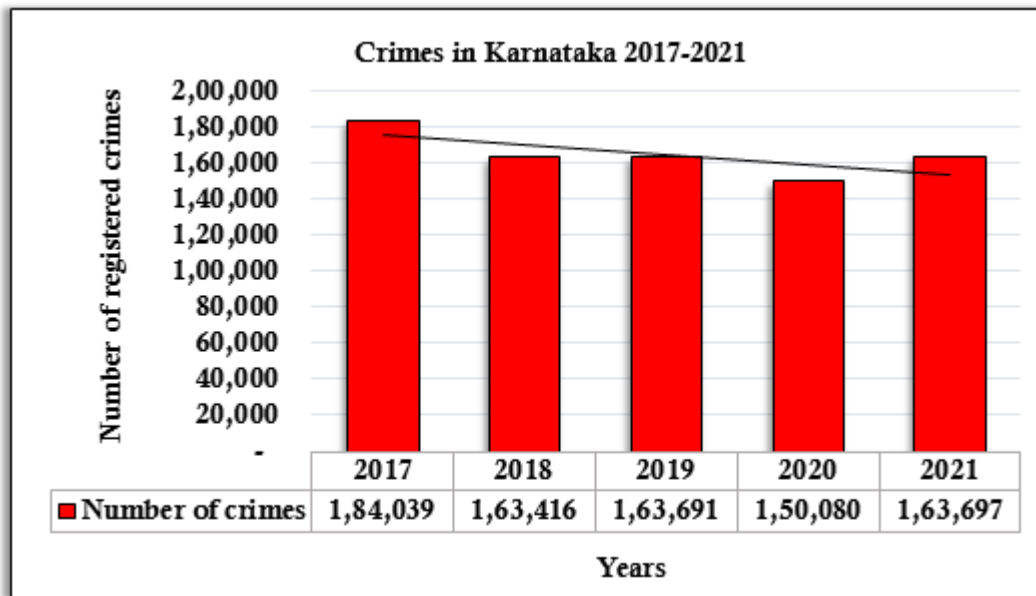
Sl. No.	Districts	2017	2018	2019	2020	2021
1	Bengaluru City	53,705	3,049	2,789	2,582	2,829
2	Mysuru City	3,014	39,976	41,854	34,156	36,310
3	Hubballi Dharwad City	2,270	6,136	6,008	5,409	5,916
4	Mangaluru City	3,789	5,929	5,346	5,589	6,065
5	Belagavi City	2,475	4,341	5,068	5,292	6,115
6	Bengaluru District	6,249	4,096	3,789	3,544	3,582
7	K.G.F.	639	3,701	3,759	4,032	4,448
8	Kolar	2,220	2,718	4,699	3,287	4,013
9	Tumakuru	6,378	2,824	2,633	2,035	2,349
10	Chikkaballapura	2,852	3,013	3,272	3,395	3,633
11	Ramanagara	4,730	4,256	4,485	4,809	5,205
12	Chitradurga	4,589	2,265	2,039	1,829	2,009
13	Davanagere	4,314	4,275	3,937	3,462	4,007
14	Shimoga	6,975	1,333	1,286	1,364	1,719
15	Haveri	2,637	2,028	1,643	1,512	1,610
16	Chikkamagaluru	3,536	4,892	3,192	3,306	3,198
17	Dakshina Kannada	2,476	5,968	5,323	5,641	6,464
18	Udupi	3,066	2,725	2,827	2,785	3,004
19	Uttara Kannada	3,431	1,924	1,923	1,841	2,934
20	Bagalkot	3,001	760	837	739	851
21	Belagavi District	6,591	1,880	1,867	1,686	1,683
22	Vijayapura	4,344	2,094	2,058	2,167	2,397

23	Dharwad	1,412	3,322	2,653	2,566	2,660
24	Gadag	2,059	6,248	5,900	5,930	6,072
25	Bidar	3,783	3,231	3,119	2,375	3,147
26	Kalaburgi	5,008	3,198	3,256	2,607	2,810
27	Yadgiri	1,932	4,758	4,657	5,077	5,595
28	Chamarajanagara	2,598	3,705	3,350	3,448	3,540
29	Hassan	5,821	1,344	1,863	756	920
30	Kodagu	2,031	4,084	4,147	4,631	4,185
31	Mandya	6,874	6,460	5,682	5,281	5,710
32	Mysuru District	5,622	6,153	6,143	6,013	6,722
33	Ballari	4,940	3,132	3,078	2,636	2,704
34	Koppal	2,802	3,343	3,306	2,910	3,126
35	Raichur	4,052	2,015	1,966	2,153	1,996
36	Karnataka Railways	1,824	2,240	1,989	1,511	1,788
37	Kalaburgi City	NA	NA	1,948	1,724	2,381
STATE TOTAL		1,84,039	1,63,416	1,63,691	1,50,080	1,63,697

Source: <https://ksp.karnataka.gov.in/new-page/Crime%20in%20Karnataka/en>

Table-1 discloses the number of registered cases in each district across Karnataka every year from 2017 till 2021. The number of cases enlisted in Table-1 is inclusive of the crimes of both IPC and SLL categories. These crimes are inclusive of both cognizable and non-cognizable offences such as murder, robbery, burglary, abduction, narcotics, cheating, forgery, assault, defamation, etc. Kalaburgi was not segregated as Kalaburgi city until 2019 and hence, in the table-1, numbers of crimes in Kalaburgi city for the years 2017 and 2018 have been marked as NA.

Figure 1: Chart showing the graphical representation of crimes in Karnataka



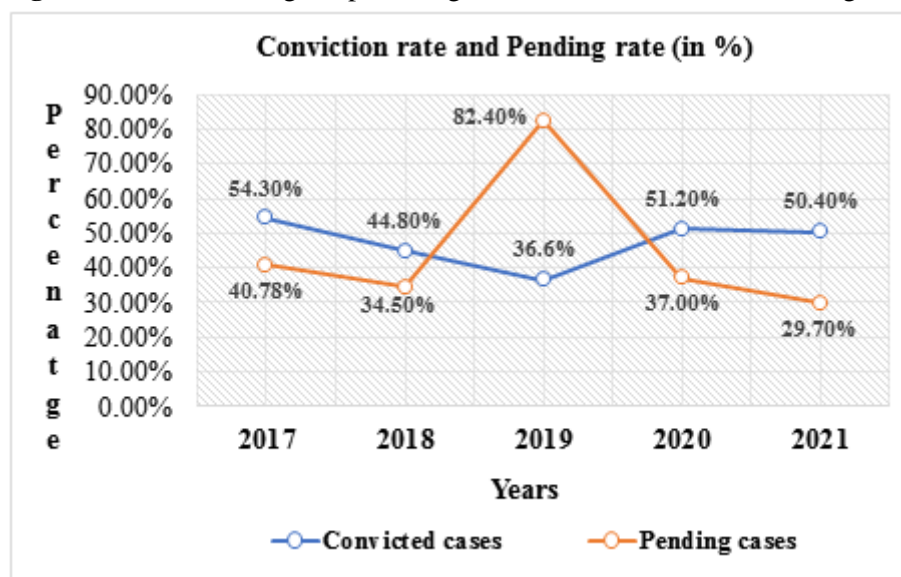
Source: Authors' work

Figure-1 depicts the graphical representation of the number of crimes registered in the Karnataka State during the years 2017-2021. Figure-1 indicates a downward trend in the registered crimes during these five years wherein, the number of total crimes registered in the year 2017 was 1,84,039 which saw a drop by -11.205% in the year 2018; thereafter the number of crimes raised by +0.168% during the year 2019 with a total number of 1,63,691 cases; the

total number of crimes in 2020 was 1,50,080 which again showcased decline in the number of crimes by -8.315% and the same saw a rise by +9.073% in the year 2021 summing up to a total of 1,63,697 cases.

In the figure-1, the least number of cases registered was in the year 2020, which was due to the pandemic. An article suggests that on an average, the time taken to solve a case in India ranges 10 to 15 days depending upon the type of case. As a reason of thorough investigation and collecting substantial evidence, time period consumed in case of criminal cases for solving shall be up to 6 months (Tiwari). As per the secondary sources, there are up to 1,09,519 policemen working in the Karnataka Police Department (KSP, n.d.) wherein the population of the State, as per the Aadhar statistics during February 2019 sums up to 6.62 crores (indiagrowing.com, 2019).

Figure 2: Chart showing the percentage of Convicted cases and Pending cases



Source: Authors' work

Figure-2 reveals the rate of pending cases and convicted cases during the years 2017 to 2021. In the year 2017, there were a total of 1,84,039 cases registered and the corresponding conviction rate and pendency rate were 54.3 percent and 40.78 percent respectively; in the year 2018, total number of registered cases were 1,63,416 and the corresponding conviction rate and pendency rate were 44.8 percent and 34.5 respectively; in 2019 there were 1,63,691 cases with a conviction rate of 36.6 percent and a pendency rate of massive 82.4 percent; in the year 2020, 1,50,080 cases had a conviction rate of 51.2 percent and a pendency rate of 37 percent; similarly the year 2021 had 1,63,697 cases with 50.4 percent conviction rate and 29.7 percent pendency rate (State Crime Records Bureau, n.d.). Pending cases of each year disclosed in figure-2 indicates the percentage of pending cases of that respective year and pending cases of the previous year shall be carried forwarded to the current year, which is not included in the present year's data.

Amongst the registered crimes, up to 40 percent of the crimes are comprised of violent crimes, property crimes and economic crimes while the remaining 60 percent of the crimes are comprised of other IPC and SLL crimes. This concludes that police personnel have to work cautiously while investigating and collecting evidences of criminal cases, which will consume more time. All these cases have to be completed within the shorter time frame with other tasks in hand every day. With the above data, it is evident that the workload is constantly rebuilding

throughout the year and policemen are running short of time in handling the burden. When there is excess of work and less time to complete them, such situations tend to burnout (Queiros, et al., 2020).

DISCUSSION

Mr. Raghavendra Auradkar, Additional Director-General of Police (Recruitment), had submitted a proposal to implement the eight-hour shifts instead of current shifts. The proposal had mentioned about the benefits of eight-hour shifts which could directly improve the work efficiency of around 1.08 lakh policemen and also substantially reduce their fatigue and work pressure. The proposal also tagged the unfair difference within the sanctioned strength and existing strength. As per the proposal, three-shift strategy would separate the staff between crime and law & order branches and also provide a fixed time of duty to all the policemen who were working for a minimum of 12 hours per day without any time limits. It would also distribute manpower to the jurisdictions where the actual requirement is high and reduce the excess manpower where the requirement is less. Despite the efforts, the State Government is yet to fill 23,000 vacancies. Officials within the department believe that the three-shift strategy can only be implemented by restructuring the organization and which is why the government has held the approval of the same till date (Police News Plus, 2019).

All the data showcased in table-1, figure-1 and figure-2 reveals the workload that is present on the records. Policemen are handling far more workload off the records and they experience the pressure and burden of overtime and excessive workload. Even today policemen are working for a minimum of 12 hours in a day and they hardly get their week-offs. Their duty and functions have no limits and moreover they do not have a fixed time duration of work which is even more stressful. Work-life balance is said to be intact only when a person is able to make the right decisions in both workplace and personal life. Right decisions always come from a sound mind and straight thinking which is possible only when the mind is provided with proper care and rest. Adequate personal time and work-life balance is the need of the hour for policemen in Karnataka. Hence, work-life balance is the key to enhance the efficiency and personal growth of policemen.

CONCLUSION

Work-life balance is all about proportioning the available time between work and personal space. Human resource is an important part of any organization. In the work environment as dynamic and challenging as Police department, where manpower is the ultimate source of reliability and progress, it is very necessary to protect the health and mind of the personnel. Policing involves tremendous workload and where multi-tasking is a routine challenge and apportioning time for personal care and family care becomes a harder task. A healthy work-life balance is the result of positively handling stress and hardships at both workplace and personal space. In this study, the researchers have identified the extensive workload borne by the Karnataka Police which creates hurdle in maintaining a work-life balance.

Policemen are neither rewarded nor recognized for their honest efforts towards social cause. Instead, they are criticized for their harsh actions and judged for their behavior. Public have failed to understand the motive behind their actions and also have failed to empathize their stance which is why policemen possess poor public image. Absenteeism, alcohol and smoking addictions, procrastination, health risks and inefficiency in work handling are the common results of improper balance of work and life. Psychology experts suggest that the best cure for stressors is communication. Proper communication at the time of need and to the people of need, reduces the stress burden which also eventually motivates people to accomplish their tasks successfully.

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SPIRITUAL QUOTIENT – A NECESSITY FOR REAL EDUCATION**Kosha Oza¹ and Dr. Shakina Tabbsum Munshi²**¹Assistant Professor, Shree Jaysukhlal Vadhar Institute of Management, Jamnagar²SRK Institute of Management and Computer Education, Kutch, (Affiliated with Gujarat Technological University, Ahmedabad)**ABSTRACT**

In every school and college, the God consciousness should be taught. Never mind whether through Bible or Quran or Bhagavad-Gita. Everywhere there is knowledge of God consciousness. That principle of teaching should be introduced in every school and college so that students, from the very beginning may understand what is God, how great he is, how we are related with God, and how we must live.

The focus of education has been more on material improvements rather than self-development in terms of body, mind, and soul. If we want to build the world as a safer place for future generations, we must introduce value-based education. We must create awareness among teachers to have spiritual values such as sincerity, morality, and honesty in their work which in turn will increase their work satisfaction level.

As education industry has been booming at a very high rate so has been increase in the issues and problems of the teaching personnel. Teaching is a creative and adventurous profession where passion cannot be an option. Teachers with a passion for teaching are those, who are committed, enthusiastic, and spiritually energetic in their work with students as well as with their colleagues, parents, and the members of the society at large. Their passion is essential to achieve high quality in teaching. Even the best of a social / educational system is bound to fail unless, good teachers are available; even some serious defects of the system can be largely overcome once we have good teachers.

Keyword: SPIRITUAL QUOTIENT

INTRODUCTION

There are various types of quotients such as emotional, intelligence, psychological, social and spiritual etc. Spirituality brings abundant joy in our life. More the spirituality in life, more the awareness and consciousness. The real education is holistic and IS FOR LIFE. The real education must teach you values and ethics. The real education must teach you the science of soul. The real education is to be aware and conscious of the present moments/ breathes. Spiritual exercises and practices enhance wisdom and spirituality in you. Material and spiritual are two different paths / lines. Spirituality comes from self-experiencing.

Today, in the corporate world, organisations and institutions have realised and acknowledged that their human element, which is 'human resource' is not simply an intellectual property consisting of human knowledge and skills, but is the human spirit as well. Corporates have realised that they need to nurture and value the human spirit which is an integral part of leadership.

Human beings have five senses: sight (eyes), hearing (ears), taste (tongue), smell (nose), and touch (sensory). Spirituality is the ability to recognize that there is intelligence beyond our five senses. There is universal power that creates and governs everything within and beyond the worlds we know, and that power is omnipresent. We can surrender to this supreme intelligence through our awareness. We call this universal power by different names as per our religious faith. Spirituality makes things easier for us to go through the life's journey with all its ups and downs. It makes our lives happier.

Living happily depends on how much we are at peace with our inner self, our core – our thoughts, emotions, beliefs and desires. Our spiritual dimension gives us strength to find a sense of inner peace of both peace of mind and peace in the heart. It allows our inner values to steer through peaceful interactions with the world around us. It develops our concern for others, our concern for Mother Nature, and other living beings and it improves our conscious effort to make a positive contribution to society.

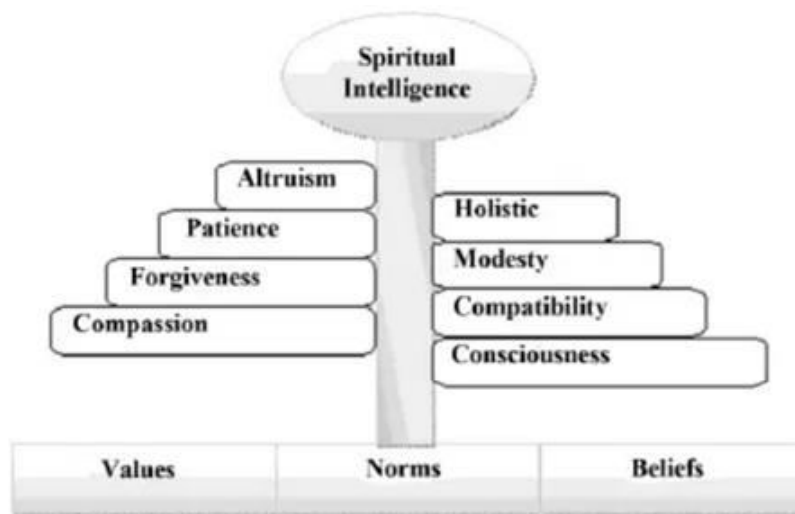
Spirituality and its practice with application will reduce misconduct to a great extent. Lots of awareness is being emphasised to apply spirituality at a workplace to ensure that employees are not just mere animals that are told what to do but to love what they do and find happiness, true happiness in life.

SQ makes us more responsible of ourselves, family, society, our surrounding, our country and then our universe too. It helps us to interconnect our personal vision with the larger good of humanity. It makes us humbler in our perspective. It reduces our selfish intentions. We, human beings, carry big egos, and want to feel all important. We tend to get swayed with our power, status and money. Human race has progressed on innumerable innovations made. With each innovation, the level of comfort enjoyed is higher. But, are we happier? Though we have made materialistic progress, though we have too many comforts compared to previous generations are we happier? Here is where spirituality helps us to find our inner peace of mind.

CONCEPTUAL FRAMEWORK

Human race has progressed because of innumerable innovations. With each innovation, the level of comfort enjoyed is higher. But are we really happier? Although we have made materialistic progress and have too many comforts compared to previous generations, are we contented? Here is where spirituality helps us to find our inner peace. A long and healthy life is important for any individual. Ill-health can halt one's progress, even if one succeeds materialistically and in social recognition. We see very successful people suffering from heart diseases, blood pressure or diabetes. A happy individual is healthier and builds a happy family, happy workplace, and society. Spiritual quotient is becoming important in business organisations; it is gathering momentum in companies such as Ford, Nike, Boeing, AT&T, Reckitt Benckiser, Wipro, Dabur, Tata Tea, Lotus, Taco Bell, etc. It looks as though a kind of spiritual revival is sweeping across the corporate world, and companies are laying emphasis on SQ in addition to intelligence quotient (IQ) and emotional quotient (EQ). Organisations are understanding the importance of employers and employees trusting each other so that the customers also trust them.

SQ means good knowledge of spirituality as a field or an innovative force of life. SQ means having complete and internal knowledge and deep information about body, materials, mentality and spirituality. SQ is like mental and personal abilities. It is related to a person, inter-personal relations and also mentality. It is complete knowledge about people themselves and their relationship with other persons and all creatures.



(Figure: Elements of Spiritual Intelligence)

Building a strong organisation on the foundation of mutual trust is most important to sustain in the VUCA world (volatility, uncertainty, complexity, and ambiguity). Stress management has started becoming a major KRA (key result area) for most organisations. Spiritual gurus like Sri Sri Ravi Shankar of Art of Living, Devdutt Pattanaik, Swami Sukhabodhananda of Prasanna Trust, Sadhguru Jaggy Vasudev of Isha Foundation and others are invited by corporates to enhance spirituality at workplace. Organisations are realising that there is a need to allow other people's spirits to be nourished and change a workplace from merely being a place to earn sufficient money to a place of creativity.

SQ is a measure that looks at a person's spiritual insight, and it is as important as IQ. The world has recognised that IQ is not the be-all and end-all when it comes to leading a successful life and earning money. IQ looks at cognitive intelligence, EQ looks at emotional power of a person, and SQ looks at spiritual power of a person. Spirituality increases the power of intuition, which we all have. Why is SQ even more important in modern times? It helps tremendously coping up and to do away with modern-day problems of terrorism, inconsiderateness, lack of humanness, etc.

Problems are part of human life. No one can escape problems. Spiritual power helps to become more flexible in analysing tough situations, understanding their cause, seeking advice of others, finding solutions, weighing pros and cons, and choosing the best alternative.

Spirituality exists within all us—it does not require great efforts from our side to experience it. Spiritual wisdom doesn't need to involve fables and mysticism, tantras and mantras. It does not require to be linked to organised religion. Living happily depends on how much we are at peace with our inner self, our core, our thoughts, emotions, beliefs and desires. It allows our inner values to steer through peaceful interactions with the world around us. It develops our concern for others, our concern for Mother Nature and other living beings, and it improves our conscious effort to make a positive contribution to society.

Zohar stated 12 principles of Spiritual Intelligence such as-

- **Self-Awareness:** Knowing that which an individual believes in and value. And what deeply motivates him.
- **Spontaneity:** Living and being responsive to the present moment.
- **Being vision and value –led:** Acting according to the principles and deep beliefs

- **Holism:** Seeing the larger connections, relationships, and sense of belonging
- **Compassion:** Fellow feelings and deep empathy
- **Celebration of Diversity:** valuing other peoples with their diversity
- **Field Independence:** Standing against the crowd with having owns belief.
- **Humility:** Having a feeling of being a player in a larger drama in the world.
- Tendency to ask fundamental —why? Question.
- **Ability to reframe:** Seeing a situation or problem in terms of wider context.
- **Positive use of adversity:** Able to learn and grow from mistakes suffering.
- **Sense of Vocation:** Feeling for to serve, to give something back.

Computers have high IQ because computers know that the rules are and can perform that task without making any mistake. Animals have high EQ, because they know the how to respond or react in any situation. But neither computers nor animals can change the situation as they wish. They work within the limitations. But a human being can change the situation for betterment if the person has the capacities called Spiritual Intelligence. Spiritual intelligence has become integrated with various discipline of knowledge which enables teachers to guide their life such as Philosophy, Psychology, Sociology, Civics and our day-to-day life.

SPIRITUAL QUOTIENT IN EDUCATION SECTOR

Intelligence Quotient and Emotional Quotient are required to imbibe the facts, but Spiritual Quotient is necessary to acquire this. Therefor true learning is a major project for any learner of any stage. It is not only Intelligence Quotient that all need to develop, one should also develop the spiritual quotient. Education system should be developed in such a way that teachers can easily adopt spiritual values. The importance of spirituality has been historically neglected in education. Even educational branches such as medicine, nursing, psychiatry, and psychotherapy lack spirituality aspect. The importance of Emotional Intelligence or EQ has been established; spirituality needs have not been systematically researched, examined, and studied.

If teachers are spiritually developed, they will be satisfied with their work. They can deal the students in a very calm nature. They can do their job without taking any stress. Teachers can balance their personal as well as professional life if they are trained to have spiritual values. Institutes should conduct practices on Yoga and meditation. Yoga helps well-being in this rapidly changing lifestyle, creating consciousness. Yoga and meditation training should also be rendered to students to develop a spiritual quotient.

Many Institutions have been conducting various sessions on spiritual values. Many Universities have introduced subjects on creating awareness about different ethical values. If teaching cannot motivate and teachers are not spiritually intelligent, true learning would be barred. We must be very careful while learning about life and its objectives. We should combine IQ, EQ and SQ together if we want to create a holistic development of teachers and students. The entire education system can also be strengthened in a much better way- whether in terms of personal growth or intellectual perfection.

SPIRITUALITY AS AN ESSENTIAL ASPECT OF TEACHER EDUCATION

An education for the whole child requires that teachers attend to all developmental domains including the social, emotional, physical, and spiritual. Teachers' spiritual development refers to an internal process of identity development involving a greater connectedness to self, others and nature, leading to meaning, purpose, and direction in one's life.

Holistic education supports teachers bringing their learning from their spiritual life into the classroom. Many others have maintained that students' holistic development in classrooms is directly related to the teachers' inner life and their capacity to conduct their practice from the basis of connected humanity.

When teachers are supported spiritually and being renewed internally, they are moving towards more significant, more understanding lives hence are more likely to make a more positive impact in their students' lives. Spirituality can be incorporated into university curriculum as an inter-disciplinary issue and that higher education institutes should provide opportunities for teachers to foster their own spiritual development. These opportunities and activities would likewise encourage teachers to be attentive to the inner life development and spiritual well-being of their own students.

CONCLUSION

We all need to build a core and connect with Spiritual values because after all, we are spiritual beings. Spiritual quotient is going beyond our cognitive and emotional skills. It is acknowledging our mortality and thinking of what we could offer humanity. It is living in humility, bearing in mind that we are just a small part compared to the vastness of the universe. A strong understanding of this motivates people to balance their work commitments, time with family and inner growth.

Research has shown that teachers who hold strong spiritual values experience less stress, suggesting that teachers who feel supported by God incur a host of positive mental health attributes, such as less depression, lower levels of psychological stress, less loneliness, and higher levels of self-esteem.

In teacher education, the provision of values education and spiritual development are often neglected in practice, squeezed out by other things (e.g., core curriculum subjects) deemed more important. More scholars and researchers will be able to engage, examine, and debate this important yet often neglected dimension of education.

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THE EFFECT OF WORK ALIENATION ON WORK ENGAGEMENT: MODERATING ROLE OF MENTORING

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ABSTRACT

Purpose/Aim: The concept of alienation is not new, but it was popularized through the early writings of Marx and gained much attention after 1990. It has neglected in organizational studies because of its conceptual clarity. In today's organizations, the alienation from work and occupation has been the subject studied by many scholars and its causes and outcomes have been the subject of interest in organizational studies in management, social psychology, and sociology of organizations. The goal of this research paper is to focus on the topic like work alienation and its relation with the other important topic i.e., work engagement that denote the positive experience of worker and occasionally considered as the reverse of work alienation. Also, the purpose of this study is to understand the moderating role of mentoring between the two concepts.

Design and methodology: in the scenario where there are lesser research on the relationship between work alienation and work engagement and the moderating role of mentoring, survey data were collected from personnel who work in various private and public organizations in Delhi NCR. A diverse and varied sample was used to increase the generalizability of the study. Hierarchical multiple regression technique was applied for data analysis.

Findings: Concluded the study of the concept of alienation and work engagement, the theoretical gap for the study of alienation in management studies is found out. The relationship between the work alienation & work engagement is highlighted through the study. After studying the relationship among the variables, it was detected that work alienation was found to be negatively related to work engagement. Also, mentoring was seen positively related to work engagement. Results indicate that an inclusion of mentoring can reduce the negative effects of work alienation on work engagement.

Research limitations/implications: Organizations cannot take risk by making their employees alienated because this might have an impact on their engagement level in the organization. For organizations it's a wake-up call, that it is essential to understand the factors that are expected to cause alienation among employees and also, they should take suitable preventive steps to guarantee encouraged personnel.

Originality/value: There is limited research on work alienation at present. This is the first study that attempts to capture the impact of work alienation on workers engagement and how this relationship will be moderated by mentoring.

Keywords: Work alienation, work engagement, mentoring, isolation

INTRODUCTION

The concept of alienation and its relationship with work is receiving a lot of consideration these days among research scholars and organizations. This is because of its effects on employees' behaviour which might not be good for the organizations. Alienation is one of the oldest concepts in the social sciences, and it is used to describe a wide range of psychological and social conditions such as loneliness, normlessness, powerlessness, isolation, apathy, self-estrangement, meaninglessness, despair, anxiety, and hopelessness (Mitchell, 1984). Marx made the term alienation known to people that it exists where workers ownership and control over

their own work was discussed. But he did not provide any particular definition of alienation (Karl Marx, 1844). Marx's work was based on Hegel's research, which defined the term as the dissociation of the mind from its essence (Overend, 1975). The term alienation was popularized through the early writings of Marx (1844/1932) and gained much attention after 1990.

Marx saw the topic of alienation as objective reality whereas others viewpoint is that it is a subjective experience of meaninglessness, powerlessness, isolation and self-estrangement. Due to the negative effects it has on feelings of helplessness, loneliness, and loss of self-identity, worker alienation is a problem that is too often ignored (Nelson & Donohue, 2006). The same feature of estrangement from one's inner or true self can also be traced in the work of Marx and existential psychology. Many management maneuvers tried to give solutions to the problems that arise because of the work alienation but they failed. HRM model has also failed in providing any solution to the problem of worker alienation. Blauner has explained four kinds of alienation namely, Powerlessness, Isolation, Meaninglessness and Self-estrangement (cited in Nelson & Donohue, 2006).

Five types of alienation were commonly used to examine the connect between work alienation and work-related behaviour: powerlessness, meaninglessness, normlessness, instrumental work orientation, and self-evaluative involvement. Shepard developed these measures to investigate the alienating effects of various types of work (Shepard, 1971). The first study that explored the consequences of alienation on efforts, job performance and withdrawal of employees through which areas for improvement could be identified (Cummings & Manring, 1977). There has been research on the impact of alienation on passive job performance and organizational commitment. However, few studies have looked at the impact on active job performance, i.e., work effort, as well as outside work, such as work-to-family enrichment (Tummers & Den Dulk, 2013).

Generally, it is assumed that alienation could result in negative behavioural consequences which may lead to reduced motivational level of workers in the work processes and several types of withdrawal. And it is suggested to look closer at the process because at the end workers are the one who actually worked in that process. Through this act factors could be identified that contributes to the intrinsically rewarding activity at work or elsewhere and got to know about the concept of self-estrangement (Seeman, 1967). Work alienation has emerged as a critical topic in the sociological and psychological study of organizational effectiveness. The goal is to improve the working environment both inside and outside of organisations (Kanungo, 1983).

As per Nair and Vohra (2010a) there is a need to study the consequences of work alienation like deviance & burnout/stress, the negative impact of work alienation. On the other hand, the argument was like that a study considering only negative variables like burnout and deviance wouldn't necessarily describe the state of being alienated. And outcomes like commitment, satisfaction & engagement are to be studied together as they are positively related to the work alienation. In other words, focus should be on the search of the consequences of work alienation. Some other consequences of alienation that could evidently be found in deviant behaviour are workplace cynicism, aggression or frustration & even suicide in some extreme cases. Thus, it implies that overseeing the problem of alienation in management studies could be a risky omission. Because there are so many consequences like reduced pro-social behaviour, absenteeism or turnover which needs to be taken care of. (Nair & Vohra, 2012).

Hirschfeld and Feild (2000) analyzed the proposal that if the organizations could identify the work role and work engagement, it will help in found varied characteristics of a work commitment. Hotelling-Williams tests revealed that, more than work centrality, there was a strong correlation between work alienation with affective organizational commitment. The outcomes suggest that individuals who have higher work commitment they could identify with

their work roles and also, they are more engaged in their respective work roles. There is one more study that was focused on the alienation and engagement of higher education teachers and students (Mann, 2001). As suggested by many authors area for further research would be to analyze several effects of work alienation in the workplace such as organizational citizenship behaviour (OCB) or engagement in the work. (Saari, 2015; Schaufeli et al., 2006; Tummers & Den Dulk, 2013).

- On the basis of the above-mentioned literature, we would like to find out the effect of work alienation on work engagement.

Koberg et al. (1994) examined the correlates and outcomes of mentoring. It was observed that mentoring was also related with decreased work alienation and increased job satisfaction. Other literatures also concluded that from a protégé's viewpoint, unsuccessful mentoring can result in a feeling of alienation (Ervin, 1995; Tenenbaum et al., 2001). On the basis of these studies, we would like to find out the association between mentoring and work alienation. In schools, teachers feel alienated because most of the time they work alone with little contact with their colleagues. Their life in schools is within the walls of the classroom only. Alienating conditions at workplace are constantly viewed as causes of stress and burnout among teachers and the negative impact of alienation is the aim of mentoring and in-service programs that seek to substitute increased collegiality among school teachers (Thomson & Wendt, 1995).

- On the basis of the above-mentioned literature our second objective of the study is to understand the moderating role of mentoring received in such mechanism.

THE OBJECTIVES ARE:

- To examine the effects of work alienation on work engagement.
- To understand the moderating role of mentoring received in such mechanism

REVIEW OF LITERATURE AND CONCEPTUAL MODEL

Work Alienation

The Oxford English Dictionary defines alienation as "the state or experience of being isolated from a group or an activity to which one should belong or in which one should be involved" (Mann, 2001). The other definition says that the notion of alienation refers to a disconnection in the context of a probable or desired relationship. The author described engagement as connection and alienation as disconnection (Case, 2008). Another definition of work alienation is "estrangement or disconnect from work, self of the context," as stated in the work alienation study (Nair & Vohra, 2010b).

Marx discussed the concept of alienation as one-dimensional concept, characterized by being powerless or lack of control over work. During the later years in 1950s and 1960s further magnitudes of the notion were explored and established, mostly through the work of Seeman (1959, 1967). Which is a multi-dimensional measuring work alienation, five dimensions are powerlessness, meaninglessness, normlessness, isolation and self-estrangement. Even after having a rich practice in the area of sociological literature, alienation has not got much acknowledgement in the organizational and management studies. Maximum studies on the topic of alienation occurred between year 1970s and 1980s, after that few occasional studies on the topic has happened. The lesser attention was given to workers from non-factory units and those are in the New Age industries i.e., IT or the service sector which is shocking. Overuse of the concept of alienation in the sociological literature, aversion to the concept's negative tone, theoretical confusion with other terms, and poor measurement scales of alienation could all contribute to its relative neglect in the field of management studies (Nair & Vohra, 2010b). The authors mostly talked about the positive outcomes of work alienation (Cumplings & Manring, 1977; Muttar et al., 2019; Tummers & Den Dulk, 2013).

In the literature, the term alienation has been used commonly across discipline, but the notion is not defined properly. The term can be defined as a generalized cognitive state of psychological separation from work, in which work is perceived to lack the capacity to meet one's primary needs and expectations (Kanungo, 1981). Mostly the alienation is defined as the notion of separation or estrangement (Fromm, 1955; Horowitz, 1966; Kanungo, 1979) or disengagement from work (Hirschfeld & Feild, 2000). Further, this separation or estrangement has been discussed in relation to people (Horowitz, 1966), work (Hirschfeld & Feild, 2000; Kanungo, 1979), from the citizen body, nature, production, from other humans, and finally from himself or herself (Overend, 1975), from the self itself (Fromm, 1955) and from work, self or the context (Nair & Vohra, 2010b).

Clark et al. (2010) investigated the differences in perception of alienation among workers, coworkers, and supervisors by developing a measure of temporary worker alienation. The study discovered that temporary worker alienation was rated lower by supervisors than by temporary workers themselves, or that alienation was inversely related to self-ratings of job performance. It was believed that alienation is understood in different manner by temporary workers and their supervisors. And because of this different perspective, it can be concluded that the impact of alienation on performance evaluation will depend on who will evaluate the performance. In the second objective the scale for measuring the temporary worker alienation was created because available alienation measures don't suit well for the temporary workers. This new measure was developed on the conceptualization of temporary worker alienation Roger 1995 (cited in Clark et al., 2010). Based on the previous qualitative work of Roger, items were developed to reflect alienation from work, alienation from others and alienation from self.

By studying the members from health professionals employed in university, public and private hospitals, analysis tells a significant and positive relationship of work engagement and its sub-dimensions with their performance, and of work alienation and its sub-dimensions with performance. The outcomes through this research study underline the significance of work engagement and with the help of that minimalizing alienation at workplace. Therefore, if the management of hospitals wanted to improve health professionals' job performance in the hospitals, they should improve their present engagement level and by that also try to lessen their level of alienation (Kartal, 2018).

Mitchell (1984) used the perspective that has its roots in Marx's study. His views explained the condition of the workers at that time where they were forced to do monotonous work without any creativity. And they were unable to afford the things they produce. Such workers used to work only for the paycheck and work for them was not intrinsically rewarding rather it was like a problem, a harmful but necessary toil for them. The conclusion states that in the absence of sufficient opportunities for the workers where they can show their creativity and do challenging work, the alienated individuals might show deviant behaviour at workplace. As per the research done by Josephsons, it was found that the social categories that are alienated in varying degrees are women, blue-collar and white-collar workers, artists, farm workers, higher education professors, drug addicts, the aged, adolescents, the poor and the newly rich, political conservatives, political radicals, victims of prejudice, the prejudiced, the physically challenged, migrants, refugees, administrators and loners (cited in Mitchell, 1984).

Mentoring

As mentioned by Blackwell, Mentoring is a process in which people of higher rank, special accomplishments, and prestige instruct, counsel, guide, and facilitate the intellectual and/or career development of people known as proteges (Blackwell, 1989). As per the study, one in eight persons have had a right mentor.

Mentors perform a variety of tasks, including (1) they provide training to mentees; (2) motivating knowledge attainment; (3) giving information related to educational programmes; (4) giving emotional care and encouraging and assisting the protégé in advancing surviving strategies during times of chaos; (5) socializing protégés about the role requirements, expectations, and organizational requirements of the profession; and (6) creating an understanding of educational bureaucracy and how to navigate it (Blackwell, 1989).

A qualitative study with a sample of 20 mentees was undertaken to describe the impact of a mentorship program in community care from the viewpoints of the mentees, university mentors, mentees' managers, CEOs of partner agencies & members of the community care research centre Steering committee. The result confirmed that there is a positive outcome of the mentorship program on the progress of evaluation and research aids among mentees. Some lessons suggested on the basis of the three main themes, i.e., taking hold, fostering hold, and holding. These are possibly applicable in other types of settings as well and in other forms of training and mentoring programs (Ploeg et al., 2008).

Koberg et al. (1994) inspected the correlates and consequences of mentoring. And it was found that mentoring will result in increased job satisfaction and reduced work alienation. The study focused on the features of individual protégé, group and organization. The protégé's characteristics measured in the study are gender, ethnicity, tenure and education. Whereas under organization and group characteristics taken into consideration are organizational rank, group efficiency, intergroup faith, leader accessibility, mutual inspiration and value of group. The results showed that the mentoring will be linked to increased job satisfaction and decreased work alienation and positive intragroup associations. It was suggested to conduct a research to study the advantages of mentoring for the organization on the variables like turnover and absenteeism.

Kram (1983) talked about two types of mentoring: psychosocial and career related. Psychosocial functions include friendship, coaching and counseling whereas functions related to career are career advice, protection, experience or prominence within the organization, an assignment to challenging jobs and sponsorship. In the study by Koberg et al. (1994), the focus was on career related mentoring.

Work Engagement

Work engagement has been defined in some studies as a state that combines vigor, dedication, and absorption. Job and personal factors are the primary predictors of engagement; these resources become more important in the context of high job demands. Because the more the worker is engaged, we can expect from him the more of creativeness, productivity, and also that worker will be willing to go the extra mile (Bakker & Demerouti, 2008). Work engagement can be defined as a positive and work-related feelings that are categorized by three dimensions viz. vigor, dedication, and absorption (Schaufeli et al., 2006). Where vigor can be defined as high energy level and mental agility when they are working. And dedication is defined as being deeply involved in one's own work while also experiencing a sense of worth, passion, and challenge. Absorption can be explained where one is fully focused and happily occupied in own work, where time passes very speedily and one face difficulties with shedding oneself from work. There are several reasons why engaged workers outperform others. For example, engaged employees generally experience positive emotions such as happiness, delight, and passion; they also have better health; they can produce their own job and individual resources; and, finally, they can pass on their engagement to other employees in the organisations. Engagement leads to better job performance and is a key indicator of professional well-being and happiness for both employees and employers. Based on the available evidence, they could at best be indicated as bivariate but not bipolars (Schaufeli et al., 2006).

Pati (2012) explains about the disengaged employees that they exhibit a passionless and uninterested attitude towards their work in that way bringing about a damaging impact on self, peer and organizational performance. The scale was developed to measure work engagement by including 17 items from Utrecht Work Engagement Scale (UWES) and 22-item Maslach Burnout Inventory (MBI) (Schaufeli et al., 2002, 2006). The final scale included 9 items after performing required analysis and validity tests.

Work engagement and work alienation are well-thought-out as bi-polar counterparts of each other by many researchers (Prakash Pati & Kumar, 2015). Work engagement is defined as stated empowerment relating to a role, which shows as two main factors namely, passionate task performance and organization citizenship behaviors (Pati, 2012; Prakash Pati & Kumar, 2015). Many research scholars are increasingly seeing work engagement as the projected opposite of work alienation (Case, 2008; Mann, 2001; Nair & Vohra, 2010b).

Even though alienation as a notion has a rich past, but the concept was relatively neglected in management studies and the cause behind this negligence could be its conceptual confusion and ambiguity. The popular concepts like commitment, job satisfaction and work engagement, those signify the positive understanding of worker and which occasionally well-thought-out as the reverse of work alienation. The collocation of the connected concepts explains that alienation can contribute to the organizations when it comes to understanding the linkage between the variables like experience at work and employee-related results and consequences like commitment, work satisfaction, stress, deviance behaviour at workplace and work engagement (Nair & Vohra, 2012).

Hirschfeld and Feild (2000) in their study represent the degree to which a person feels disengaged from the work environment. The tests discovered if we compare with work alienation, work centrality will be strongly correlated with work ethics. On the other hand, if we compare with work centrality, the variable work alienation will be more strongly associated with discipline and also with the affective organizational commitment. The summation of the study says that the workers who identify and also engaged in their work role are the highly committed workers.

Saari (2015) in the case study mentioned the association between work alienation and work engagement with the help of modified survey used in the previous study (Hirschfeld & Feild, 2000). In current management studies, lack of engagement has received much attention and has been argued to be the initiation to the concept of alienation. Due to the importance of the concept on employee wellbeing, no wonder, the studies on work engagement have increased dramatically in the last few years. This concludes that when work alienation level is low, the work engagement is high Saari (2015).

We know that engagement is not limited to the individual employee rather it is also concerned with the groups. The study also identified with 130 members team from different organizations that the collective level of group engagement is associated with the individual's engagement of the team associates. Thus, the engagement of the group members depends on the engagement of the team. Eventually, there a positive relationship between work engagement and job performance, that's why it is significant to study and learn the concept of work engagement (Schaufeli et al., 2006).

Ever since the concept of alienation was introduced in management theory, it has been related to matters like engagement and satisfaction at workplace. This clarity of the concept has made the professionals understand the importance of alienation and if they avoid employee alienation this might result in lower engagement level. This will also result in creating the workers to operate at the highest level possible without compromising ethical boundaries (Kanungo, 1983; Nelson & Donohue, 2006; Saari, 2015; Schaufeli et al., 2006). The core factors which impact turnover

intentions of an employee are burnout, work engagement and work alienation. Results of the study showed that there is negative relationship between work engagement and turnover intention, on the other hand, there is positive relationship between burnout and work alienation with turnover intention. It was also noted through the study that, work engagement mediate the relationship between the two variables i.e., burnout and turnover intentions among university employees (Hamid Taboli, 2015).

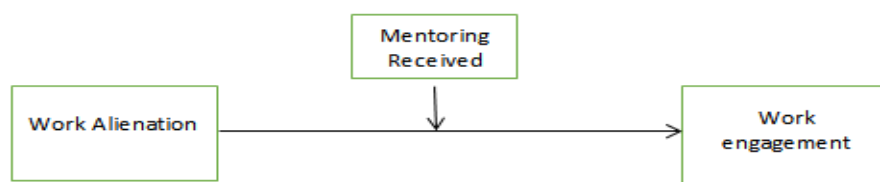
As seen in the instance of health professionals, employee engagement has a favourable and considerable impact on performance. Vigor and absorption, two sub-dimensions of involvement, had a favourable connection with performance in the established regression model. Performance had a bad relationship with the sub-dimensions of job alienation, meaninglessness and helplessness. As a result, employers should work to make their jobs more attractive if they want to see an increase in employee performance. To accomplish the goal, they can also consider doing business development and enhancement projects. According to the study, the degree of workplace alienation has a detrimental and significant effect on an individual's performance. Therefore, initiatives to reduce alienation could aid in the improvement of work performances (Kartal, 2018).

Gozukara et al. (2017) According to the study, organisations could set up support groups or one-on-one conversations for workers who experience loneliness in order to foster a space for self-expression. Organizations may also hold social gatherings to foster staff camaraderie as well as training sessions on dispute resolution and communication techniques. Organizations may also gain from putting more of an emphasis on teamwork and engagement-boosting techniques. Employees who have been with a company for less than a year feel more alienated from their jobs than those who have been there for more than ten years. As a result, employers may think about giving employees more autonomy at work and opportunities to influence decision-making in order to increase their respect for and commitment to their jobs. Additionally, businesses may conduct routine interviews with employees to learn about any situational problems they may be having and to establish the appropriate engagement tactics (Ceylan & Sulu, 2011; Chiaburu et al., 2013).

H1: Higher Work alienation will lead to decrease in work engagement among employees.

H2: Mentoring would lessen the negative impact produced by work alienation on work engagement.

H3: Mentoring results in greater work engagement among employees.



Proposed Framework: Hypothesized relationship among variables.

RESEARCH METHODOLOGY

MATERIALS AND METHODS

The study intends to examine the above hypotheses using a sample of employees who work in various private and public organizations in Delhi NCR. To increase the study's generalizability, a diverse sample was used.

Standardized scales/questionnaires that had already been validated in previous studies were used. The questionnaire was separated into four portions, where part I comprised of questions

related to demographics of the respondents then part II consisted questions on work alienation, part III comprised of work engagement questions and part IV comprised items relating to mentoring. All the questions/items in part II, III and IV were anchored on a Likert scale of 1 that stands for strongly disagree and 5 stands for strongly agree.

Scales Used

1. Work alienation: 8 item developed by (Nair & Vohra, 2010b). sample items include “Work to me is more like a chore or burden”, “I feel estranged/disconnected from myself”.
2. Work engagement: 9 item scale developed by (Pati, 2012). Sample items include “I encourage others to try new and more effective ways of doing their job”, “I exert a lot of energy in performing my job”.
3. Mentoring: Mentoring was measured with 29 items developed by Noe (1998). Sample items include “My mentor has conveyed a feeling of respect for me as an individual”, “Mentor has encouraged me to prepare for advancement”, etc.

Data Analysis

SPSS 25.0 statistical tool was used to analyze the data. Further the factor structure construct was examined with confirmatory factor analysis (CFA). To appraise the hypotheses relating to the effects of diverse independent variable i.e., work alienation and mentoring, on the outcome variable i.e., work engagement. Table 1 reports the mean, standard deviation and correlation among the variables. The correlation between work engagement can be seen negative ($r = -.589$) whereas high positive correlation was seen between work engagement and mentoring ($r = .602$). Then a hierarchical regression was applied as suggested by Cohen & Cohen (1983) to ascertain the causality between work alienation, mentoring and work engagement.

RESULTS

Factor structure construct was examined with confirmatory factor analysis (CFA) using varimax rotation method. Based on the outcomes of CFA, all the factor loadings under 0.6 were not considered in the final analysis. Work alienation, mentoring and work engagement were found to be dissimilar variables.

Reliability and Correlation Analysis

Table 1 displays the means, standard deviation, and correlations among all the constructs i.e. work engagement, work alienation and mentoring. KMO and Bartlett's test were used to check the adequacy of the sample. KMO was 0.89 suggesting that sample was adequate. Pearson correlation coefficients reported negative correlation among work alienation and work engagement indicated by $r = -0.589$ at $p < 0.01$. Whereas, mentoring was seen positively related to work engagement with $r = 0.602$. Intercorrelations among the above variables were estimated before examining causal relationship among the main constructs. All the variables were found to be significantly related to work engagement at 1% significance level.

Table 1

Table 1: Mean, SD, Alphas and correlation

Measures	No. of items	Mean	SD	1	2	3
Work alienation	8	2.19	0.82	(.882)		
Mentoring	29	3.86	0.73	-0.552**	(.962)	
Work engagement	9	3.94	0.79	-0.589**	0.602	(.921)

Note: N=160, Alpha coefficients are in parentheses on the diagonal.

* $p \leq 0.05$, two tailed. ** $p \leq 0.01$, two tailed.

Table 2 reports the results of hierarchical regression. In the first step of hierarchical multiple regression, two variables were put: work alienation and mentoring to test the Hypothesis 1

which proposed that higher work alienation will lower work engagement. This model was statistically significant $F(2, 157) = 69.34$; $p < .001$ and explained 47 % of variance in work engagement. Work alienation negative impact on work engagement was proved by the negative beta value ($\beta = -0.389$, $p < 0.01$). Next, by looking at the positive beta value ($\beta = 0.391$, $p < 0.01$) for mentoring at this stage, it can be concluded that mentoring enhances work engagement confirming hypothesis 2. To evaluate hypothesis 3, in the next step interaction term i.e., work alienation*mentoring was added. The total variance explained by the model was 48% ($F(3, 156) = 47.87$; $p < .001$). The introduction of interaction variable (work alienation*mentoring) explained additional 10% of variance in the model. The fall in the negative beta value ($\beta = -.340$) was found to be significant at $p < .005$, indicating that an intervention like mentoring can significantly reduce the adverse effects of work alienation on work engagement. The overall R^2 was also found to be significant at $p < 0.01$ hence supporting this study.

Table 2

Variables	B	β	R^2	F
Step 1			0.469	69.34
Work alienation	-.379	-.389**		
Mentoring	.425	.391**		
Step 2			0.479	47.87
Work alienation	.004	.004		
Mentoring	.716	.659**		
Work alienation*Mentoring	-.113	-.340*		

Note: N=160. B represents unstandardized regression coefficients whereas β represents standardized regression coefficients for variables in the complete models.

R^2 is the change in variance accounted by variables at each step.

F^a is the ratio for R^2 resulting from entering variables at every step.

* $p \leq 0.05$, two tailed. ** $p \leq 0.01$, two tailed.

DISCUSSION

The specified research hypotheses received noteworthy support from the data used in analyzing the objectives. The statistical outcomes have shown negative relationship between work alienation and work engagement on the other hand positive relationship was found between work engagement and mentoring. It was clear from the results that mentoring can be used as a significant intervention in reducing the negative impacts of work alienation on work engagement among the employees working in various private and public organizations. One of the reasons of this could be that mentoring is a development tool used for knowledge management in an organization. In mentoring the less experienced/junior person obtains the knowledge from the more experienced person thus helping the junior or less experienced employees in improving their performance at work (Gibb, 1999), lowering their work alienation (Kram, 1985) and strengthen their work engagement (Allen & Lentz, 2006).

CONCLUSION

The study offers numerous major contributions to the relationship between work alienation and mentoring. The results of the study states that mentoring may act as helpful in lowering work alienation impact on work engagement. Thus, we can say that several mentoring programs may be formal or informal will assist in improving work engagement. The results of the study also demonstrates that despite having the high negative correlation between the work alienation and work engagement, interventions such as mentoring can help in a great way in reducing such adverse effects. Organizations should encourage mentoring at their workplaces to become more effective.

Unquestionably, the presented study has numerous limitations which include, among other things, limited scope. However, despite visible limitations, the authors believe the study is important for people who are responsible for management. The study contributes to a better understanding of the nature of mentoring in coping up the negative effects of work alienation on work engagement. Furthermore, due to lack of research on the variables under examination in this article, it may provoke further research.

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WOMEN ENTREPRENEURSHIP AND ITS CHALLENGES ESPECIALLY IN SAARC COUNTRIES

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ABSTRACT

Women's entrepreneurship is now recognized as critical to the country's economic development. However, there are several impediments to their development. This study investigates what drives female entrepreneurs to start their own businesses. It also examines the factors that aid and impede the growth of female business owners. Women's empowerment and the challenges which they face especially in SAARC countries is now recognized as a critical factor in achieving balanced economic growth and development of that region including India. Issues with guidance, family environment, sexual harassment and gender discrimination, budget operation, communications, and use of equipments are among the biggest challenges faced by female entrepreneurs. Women entrepreneurs should first be organized in self-help groups to help them develop their personalities, become more aware of their surroundings, and stay up to date on the latest knowledge. Empowering women in South Asia is of the utmost importance to bring them into the mainstream of development and bring about growth and prosperity in the region. They should be given a reason to come forward and help the region's economy grow so that the region can move forward.

Purpose of the Paper:

This study aims to call attention to the need for the dominant conceptual framework of women entrepreneurship analysis, to be made a reality in future.

Methodology / Approach

A modified conceptual framework should make it possible to conduct an accurate empirical study of female entrepreneurship and it should provide a strong foundation for suggesting economic measures that are specific to this group of business owners.

Findings:

The findings of a study on the dynamics and contemporary situation of women who work for themselves are presented in this study. All this leading to definite and applicable measures which should bring long lasting positive results in the lives of women.

Keywords: Entrepreneurial growth, Empirical research, women Entrepreneurship challenges, Government policies

INTRODUCTION

Women's participation and entrepreneurship in economic activities is seen as essential to achieving the goals that have been established for progress and prosperity, particularly in South Asian Association for Regional Cooperation area, where women make up more than half of the total population. For this reason, empowering women in South Asia is of the utmost importance to bring them into the mainstream of development and bring about growth and prosperity in the region. They should be given a reason to come forward and help the region's economy grow so that the region can move forward. The Project titled "Networking and Capacity Building of Women Entrepreneurs (SMEs) from SAARC Countries" is an important project. All the eight SAARC member countries including, Afghanistan, Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka are participating in the project through their country collaborators (Implementing Agencies, IAs).

In the current environment, governments around the world are encouraging women to start their own businesses. According to a study conducted by Abrar ul Haq, M., Victor, S., & Akram, F. (2021), where authors found nine indicators that significantly contribute to being a successful entrepreneur using factor analysis and the data of 80 female entrepreneurs. The study suggests that there must be a constant effort to move, stimulate, and coordinate with women entrepreneurs while developing the policies to promote women in business.

As per Amrita, K., Garg, C.P., Singh, S (2018), from India, in their paper they said that regardless of location, women-owned firms can be found in every industry due to a growth in female entrepreneurship. Several corporate and non-profit organizations have taken significant steps to support women's entrepreneurship (WE). To improve WE, it is important to identify and evaluate the most important parts of WE adoption.

Reviewing the literature on women entrepreneurs in emerging economies, particularly SAARC nations, analysis has been performed to investigate the South Asian setting. Every location has unique societal and cultural issues that have an impact on female entrepreneurs. The dynamics of developing countries differ greatly from those of industrialized nations. According to Rashid, S., & Ratten, V. (2020), analysis has been performed to investigate the South Asian setting. More qualitative and quantitative research is required, according to the main findings of this study's implications for future research. It will help to give more information and a fuller picture of the real stories, as well as help people understand the phenomenon better.

According to International Labour Organization, the Women's Entrepreneurship Development and Gender Equality (WEDGE) project aims to meet the practical requirements of women business owners and eliminate socio-cultural, legal, and political barriers to women's entrepreneurship. When women run micro and small businesses in the informal sector of the economy, they help their families and communities make money for day-to-day expenses and other things.

Livani, Talajeh & Solotaroff, Jennifer. (2019) in their article "Promoting Women's Participation in Cross-border Trade in South Asia", emphasised about gender issues in the trade sector, which have been disregarded by practitioners and policymakers. In their article, they offered policy suggestions to increase the benefits of trade for women in South Asia. The recommendations include expanding women's access to education, productive resources, information, transportation, and trade networks. They also include improving export sectors with a female preponderance.

Women business owners manage all aspects of production, take calculated risks, and collaborate. In SAARC, women entrepreneurs were earlier seen as disposable, dependent, and economically unproductive. Issues with guidance, family environment, gender discrimination, budget operation, communications, and use of equipment are among the biggest challenges faced by female entrepreneurs. Management of finances is one of the biggest challenges for female Entrepreneurs this includes price changes, high transportation costs, and lack of loans and funding facilities etc.

Apart from these there are many other issues which are related with women entrepreneurs while starting a business in South Asian Countries. Some of them are as follows:

1. Less sectors are welcoming women
2. Gender discrimination and sexual harassment
3. Poor Funding and stiff competition
4. Family environment and peer encouragements

5. Funding and government policies
6. Communication, networking challenges, and limited mobility
7. Lack of education and risk tolerance
8. Guidance & Motivational trainings
9. Safety and security issues
10. Lack of ideal role models

Entrepreneurship is crucial to both developed and emerging nations. This research paper's goal is to draw attention to the difficulties faced by female business owners in developing nations. The research paper suggests that government programs and funding for women who own businesses should be made available in all parts of the economy.

As per (Ariffin, A. S., Mohamed Saleh Baqutayan, S., & M. Mahdzir, A. (2021)), Malaysia is currently dealing with many issues that have an impact on its rural areas. In Malaysia most female business owners are highly informal, unregistered, unorganized, and often have less support and power. Due to weak and inadequate institutions, inadequate initiatives, and not adequate supporting programs, Malaysia, a developing country which does not have a dedicated policy to address grassroots women's entrepreneurship. A new strategic framework is required to support the growth and sustainability of grassroots women entrepreneurs.

As per Rashid, S., & Ratten, V. (2020) Information and communication technology (ICTs) is seen as a powerful factor in changing social, economic, and political life around the world. In many cases, the ongoing development and use of technology have spawned a wealth of brand-new business and employment prospects. Since women's engagement in economic activities is seen as essential to achieving the goals set for progress and prosperity, particularly in South Asia where women make up more than half of the population, women's empowerment is a vital to the recovery of the economy. As the economic conditions of SAARC countries, are developing and the women population is more than 50% authors have thought of doing a comparative analysis of the problems of women entrepreneurs in SAARC (India, Maldives, Afghanistan, Pakistan, Bhutan, Nepal, Bangladesh, and Sri Lanka) countries. As appropriate implementation of policies by governments and other sectors are not there.

The goal of women's empowerment in South Asia is to include them in the process of progress and prosperity by integrating them into society. They ought to be inspired to step up and contribute to socioeconomic growth.

Women's economic activity is undermined on many fronts by their lack of access to finance and financial services. The gender disparity in opening an account at a financial institution is approximately 30% in places like Afghanistan, Bangladesh, Pakistan, and Sri Lanka (The World Bank, 2018a). Additionally, women business owners in South Asia's Bangladesh, Bhutan, India, and Nepal cite access to finance as a significant—and frequently the most significant—barrier to growing their companies and exporting (ADB, 2010, 2013, 2015; Alliance for Financial Inclusion [AFI], 2017; Faisal, Sagar, & Khanam, 2015)

The development process is fundamentally dependent on women's emancipation. The fact that the governments of developing nations are trying and have even established a distinct ministry for women's welfare is encouraging. But the difficulties are enormous and complicated. Even with a solid infrastructure, government officials are unable to effect the necessary transformation. All fair-minded people should work together to bring about a time when women are treated equally in the social, political, economic, and cultural spheres.

The Asian woman has proven that she can work as a successful businesswoman and is no longer limited to the kitchen and children. It is now widely acknowledged that significant efforts must be made to speed up self-employment among women to encourage it and lower the incidence of poverty.

NEED FOR STUDY

The study of entrepreneurship has only recently attracted researchers' attention. Exploring women's entrepreneurial endeavours, their profiles, issues, and opportunities has not received much attention. The data that is available on these elements is not very reliable and does not offer information that can be used to better the situation of women.

OBJECTIVES OF THE STUDY

1. To understand the problems faced by women entrepreneurs in SAARC countries
2. To understand the position of women entrepreneurship in SAARC countries

RESEARCH METHODOLOGY

Authors used secondary data and studied 20 papers, available for SAARC countries in the form of journals, periodicals, books, and websites. The research is based on secondary data that was collected from various sources. The data is derived from publicly accessible research from many different fields, which is available on their websites and in their reports. To ensure the accuracy of the information, data has been gathered from numerous books, research journals, research papers, articles, and other print media.

The research undertaken sheds light on women entrepreneurs in SAARC countries. This study was written using the descriptive technique and a careful and in-depth analysis of accessible literature by the writers. The findings of the study indicated that women entrepreneurs confront numerous hurdles, and that the position of women in SAARC countries is deteriorating despite government involvement, and that they require assistance at all levels.

3. Problems faced by Women Entrepreneurs.

- Socio-Personal and psychological factors.
- Political factors
- Cultural factors
- Safety and security factors
- Economic factors

Socio -Personal and Psychological Factors:

Most women who own businesses don't receive the social support they need to launch them from their families, peers, and local communities. Although there are programs to encourage female entrepreneurs, many don't get timely advice or assistance from the authorities. The lack of a good support system hurts their confidence and makes it harder for them to take chances. Despite gender equality rules and practices, men continue to dominate South Asia's entrepreneurship sector. The male-centric character of many industries also compels female entrepreneurs to operate in traditionally "women-friendly" fields such as education and beauty care. It severely limits their experience, prospects, and talents. Many women are compelled to run their enterprises from home. As a result, they miss out on chances to network and engage with the corporate world. A person needs to grow up in an entrepreneurially spirited atmosphere if they want to own a successful firm. The absence of such a productive setting frequently affects a lot of women.

As per Jolović, I. (2019) in Strategic Management in Women's Entrepreneurship, he said businesses today face intense competition because of the current market and economic

conditions. Both internal and external competition for leadership inside their company provides difficulties for women. To earn the trust of their co-workers and investors, they must continually demonstrate their worth. Women face a lot of challenges and face stiff competition. One of the biggest obstacles facing female entrepreneurs is the temptation to conform to gender stereotypes. They are frequently urged to abandon entrepreneurship for an "easier" job that allows them to devote more time to family and children. A woman who prioritizes her profession over other priorities is also despised.

Economic Factors

In addition to the special programs for women entrepreneurs' other government initiatives are there for MSMEs which also offer women business owners specific incentives and exemptions. There are only 8.6 million women entrepreneurs in India, compared to 50 million men, and under the PMEGP scheme, the Prime Minister Employment Generation Programme (PMEGP) which is a Government of India-backed credit-linked subsidy scheme, 1.38 lakh women have started projects till 2019. The scheme has been launched by the government because gender equality is becoming more important around the world, however, 60% of Indian women are between the ages of 15 and 59 years and devote their entire day to housework. Due to the social, economic, and financial obstacles that women entrepreneurs must overcome, South Asian business environment is not favourable for them. (Not only making the policies but also making women aware about policies and implementation processes should be easy, i.e credit and loan facility at door step.

Women entrepreneurs of all developing nations lose confidence when they don't have a strong support structure. According to Innoven Capital, only 12% of companies that received funding in 2019 had at least one female founder. Many angel investors and venture capital firms are reluctant to support women-owned businesses.

As per Rahman, Wakilur. (2012), one of the primary issues facing female entrepreneurs in Sri Lanka, Bangladesh, Pakistan, and other developing countries is a lack of start-up money. Typically, women start their businesses with modest sums of money obtained from relatives, family resources, and other sources. Except for loans from MFIs, women must put up security for bank loans. Sadly, they lack sufficient fixed capital to use as security or as a guarantor to obtain a small loan from the bank. To provide collateral-free bank loans to SME entrepreneurs, particularly women entrepreneurs, the government must assume some risk. However, banks charge higher interest rates than what they can afford.

Safety & Security problems faced by women: Gender discrimination and sexual harassment

Crime against women has increased because of the law-and-order situation in SAARC Countries. For female entrepreneurs who need mobility to conduct their company activities, the unfriendly and dangerous climate presents significant hurdles. If the climate is changed in the right way, women who want to work in business can feel safe.

- In the case of *Visakha V. State of Rajasthan* (Visakha case, 1997) in India, the failure of section 354 of the IPC to adequately address the claims of sexual harassment led to the filing of a petition before the Supreme Court. The Supreme Court said that sexual harassment is wrong and is a way that women are treated unfairly.
- One of the fundamental issues facing women business owners in developing countries of South Asian region is restricted mobility. They are unable to travel alone or stay in hotels for business without being concerned for their safety. A lot of hotels in developing countries still won't let women check in unless they're accompanied by a man.

In India and other SAARC Countries, where most working women are unaware of their legal rights, which include the right to work and equal treatment. Working women are underpaid, overworked, mistreated, and subjected to physical and emotional harassment. All these have a significant impact on their quality of life and alter their personalities.

Political Aspects

Afghani women must be helped to meet their most basic requirements as part of a plan to increase their resilience, capitalize on their assets, and forge new paths from merely surviving to thriving. 95% of Afghans do not consume enough food, and more than 3.5 million children require treatment for malnutrition.

As in a report from UNDP, where UNDP extended its mission in Afghanistan to Jalalabad. The UNDP and UNHCR relationship involve humanitarian and development programme. In Herat, 120 men and women have started working together for domestic sale. The UNHCR and UNDP are assisting them in closing the gap. It is a part of the UNDP and UNHCR community resilience program, which aims to rebuild useful infrastructure while also making money through market-driven, scalable businesses. The people of Herat are attempting to build a sustainable economic system. Together, UNDP and UNHCR are assisting them in achieving their goals of wealth and self-sufficiency. This is one example of how the UN family collaborates with regional partners and local communities to put women's economic empowerment and entrepreneurship at the centre of sustainable value chains in the joint program.

Cultural Factors

As per Rajapaksha, E.K. (2019), in Challenges for Female Entrepreneurship in Sri Lanka Rajapaksha Pathirannehelage, In Sri Lankan culture, women play a very specific role and are not treated equally in all spheres of society. The primary barrier within society is the notion that women are only capable of domestic work. Men also dislike working for female entrepreneurs because it denigrates them.

Socio Psycho cultural **political, economic** aspects of women entrepreneurs in SAARC countries. (Afghanistan – and Pakistan Women are not given equal opportunities), Organized sector is a major problem in SAARC countries for women entrepreneurship.

CONCLUSION

The issue of women in business is critical to closing the gender gap. More tools, coaching, and training should be made widely available through programs and mentoring for women empowerment. A person needs to grow up in an entrepreneurially spirited atmosphere if they want to own a successful business. The Indian start-up ecosystem must assist female entrepreneurs. There must be provisions in place to enable women entrepreneurs to grow, from social acceptance to developing a collaborative environment. There is always something that holds women back in life, and the same is true when it comes to starting a business. They say that the hardest part is usually the beginning, and they're correct, but just because a challenge appears overwhelming doesn't mean we shouldn't try. So, let go of any preconceived notions and problems and consider what can go right!

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BEHAVIORAL FINANCE: DELINEATION AND COALESCENCE**¹Dr. Manisha and ²Dr. Anirban Sengupta**¹Assistant Professor, School of Business, Mody University of Science and Technology²Dean School of Business, Mody University of Science and Technology**ABSTRACT**

While the traditional academics in finance accentuate theories such as modern portfolio theory and the efficient market hypothesis, behavioral finance emanates the psychological and sociological issues that influence the decision-making process of individuals, groups and organizations. The convergence between human behavior and investment decision making has since evolved as “behavioral finance”. A large number of researchers have indicated that the investment decision-making process is more human than logical because of human biases. The paper discusses the history of behavioral finance, traditional financial theories and concepts of behavioral finance. This paper throws light on the importance of behavioral finance and its origin & evolution, a brief history of this new unconventional form of finance and the theories related to it.

In the words of, Olsen R. (1998) “behavioral finance seeks to understand and predict systematic financial market implications of psychological decision process.”

Keywords: Behavioral Finance; behavioral anomalies; History of behavioral finance traditional finance theories; decision making

INTRODUCTION

“People in standard finance are rational. People in behavioral finance are normal.”

-Meir Statman

The foundation of behavioral finance can be traced back over 150 years. “The Extraordinary Popular Delusions And The Madness of Crowds”, the prominent book of Mackay, represents a choreography of the various panics and strategies of history. Behavioral finance is the ambit of behavioral economics. Behavioral Finance is growing at a very fast pace in the fields of research, which encompass both academicians and business. Studying behavioral proposes that psychological influences and biases affect the financial behaviors of investors and financial practitioners. These influences and biases can be a source for the elucidation of all types of all types of market anomalies and specifically in the stock market, such as acute upsurge or drop down in the stock prices.

We can analyze behavioral finance from a multifarious perspective. Stock market returns are often assumed to influence market outcomes and returns but there are also many different angles for observation. Thus behavioral finance is an extremely new and pertinent topic in today’s time especially in India as investing in share markets is becoming a new trend.

The impetus of this bifurcation of behavioral finance helps to understand why people make certain investment choices and how their choices can affect markets. In behavioral finance it is assumed that financial participants are not perfectly rational and self-controlled rather they have psychological influence with somewhat normal and self – controlling tendencies.

Behavioral finance relates to the psyche of investors and its role in finalizing the investment decision making. The earliest evidence of investors' irrationality is the famous occurrence of “The Dutch Tulip Bubble”, which is also popularly known as popular alias “Tulip Mania”. The event dates back to the “Dutch Golden Age” when the Tulip plant was brought to the Netherlands for the first time. The exotic flower was so appealing to the Dutch people that they started putting in their money in the plant. As time passed by, investments in tulip plants

became a drift and the prices took on from there too and being propelled to newer highs. And when the people finally perceived that a big part of their income was being used on a flower bulb and that too otherwise held much value, at that time the market finally slumped. Then the people got rid of their tulips and the price of the tulips crashed, which in return caused a great market loss. Such events like tulip mania question the rationality of investors.

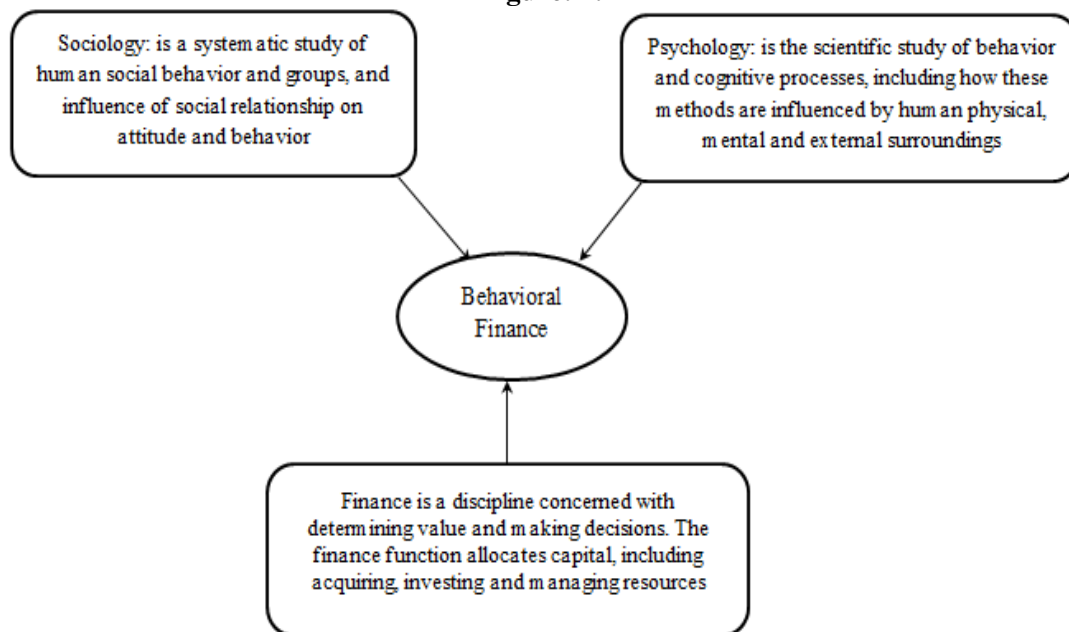
BEHAVIORAL FINANCE: THE EXIGENCY OF THE NEW EXEMPLAR IN FINANCE

If we remove the traditional assumptions of expected utility maximization from efficient markets then behavioral finance is evolved which studies human psychology and the rationality of making financial decision making. It is a study on the process of investment decision making which explains the different market anomalies created by human behavior?

The traditional financial theories have played a key role in explaining the investor decision-making process, but the main hitch came when theories failed to explain irrational behavior of investors. So many researchers studying the stock market have seen various market bubbles, which were difficult to explain by traditional finance theories. All these hitches of the investors and the market anomalies give spring up to a new field of finance, known as behavioral finance.

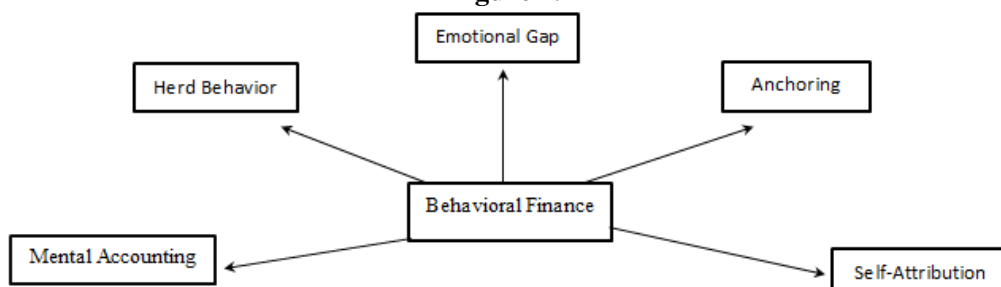
Evolution of Behavioral Finance

Figure: 1.1



Concepts of Behavioral Finance

Figure 1.2



Source: Author

- **Mental Accounting:** it means the proneness of people to allocate money for a defined purpose.
- **Herd Behavior:** herd behavior says that people try to impersonate the financial behaviors of majority of the herd. Herding is really notorious and it creates major dramatic rallies and sell-offs in the stock market.
- **Emotional Gap:** Emotions are the main reason that many a times people do not make rational decisions and choices. The emotional gap alludes to decision making being extremely emotional or may be based on some emotional strains such as excitement fear, anger and anxiety.
- **Anchoring:** Anchoring means setting certain spending standards just like setting a budget, or rationalizing spending based on different satisfaction utilities.
- **Self – Attribution:** Self-attribution refers to a tendency to make choices based on overconfidence in one's own knowledge or skill. Self-attribution usually stems from an intrinsic knack in a particular area. Within this category, individuals tend to rank their knowledge higher than others, even when it objectively falls short.

A Short Note on History and Evolution of the Major Theories of Behavioral Finance: In order to truly understand behavioral finance, it becomes important to explain the development of the theories of behavioral finance from the beginning to never ending development of the subject.

Sr. No.	Author's Name	Year	Theory/Concept/Model
1.	Mackay	1841	Extraordinary Popular Delusions And The Madness of Crowds
2.	Gustave Le Bon	1896	The Crowd: A Study of the Popular Mind
3.	Selden	1912	Psychology of The Stock Market
4.	Herbert Simon	1955	"Models of Bounded Rationality"
5.	Festinger, Recken, and Schachter	1956	"Theory of Cognitive Dissonance"
6.	Raiffa	1968	
7.	Tversky and Kahneman	1973, 1974	"Introduced Heuristic Biases: availability, Representativeness, Anchoring, and Adjustment"
8.	Kahneman and Tversky	1979	"The Prospect Theory Introduced Loss aversion bias "
9.	Tversky and Kahneman	1981	"Introduced framing Bias"
10.	Richard Thaler	1985	"Introduced mental accounting bias"
11.	De Bondt and Thaler	1985	"Theory of overreaction in stock markets"
12.	Statman	1994	Behavioral asset pricing theory
13.	Barberis, Shleifer, and Vishny	1998	"Investor sentiment model for under reaction and overreaction of stock prices"
14.	Meir Statman	1999	"Behavioral asset pricing theory and behavioral portfolio theory"
15.	Andrei Shleifer	2000	"Linkage of behavioral finance with the Efficient Market Hypothesis to find that stock markets are inefficient"
16.	Barberis, Huang, and Santos	2001	"Incorporation of prospect theory in asset prices"

17.	Grinblatt and Keloharju	2001	“Role of behavioral factors in determining trading behavior”
18.	Hubert Fromlet	2001	“Importance of behavioral finance, emphasis on departure from homo economics’ or traditional paradigm to more realistic paradigm”
19.	Barberis and Thaler	2003	“Survey of behavioral finance”
20.	Coval and Shumway	2006	“Effects of behavioral biases on stock prices. The price reversal for biased investors is quicker than unbiased investors”
21.	Avanidhar Subhrahmanyam	2008	Normative implications of behavioral finance on individual investors and CEO’s
22.	Richard Thaler	2008	Impact of mental accounting on consumer choice behavior
23.	Robert Bloomfield	2010	Compares the behavioral and traditional finance approach in explaining market inefficiencies

Source: Author

REVIEW OF LITERATURE

- **Raiffa and Raiffa (1968), Kahneman and Tversky (1979)** studied that the behavior of the individual while making investment or financial decisions, in theory differs from practice, and classic financial models cannot explain or predict all the financial decisions. Consequently, earlier and now the economic rationality of human beings in its behavior finance is criticized reasonably.
- **Thaler (1985)** there exists only two cases: basic gains and basic losses. Every investor wants to pick out the gains such that every increase is related with its own quality.
- **According to a survey conducted by SEBI (1998)** investment objectives of the investors, their risk appetite, income or funds available for investment puts huge influences on investment behavior in securities market across different levels.
- **Odean(1988)** has concluded that investors have a tendency to exaggerate their capacity, unreasonably about the future events and are very positive about their self-assessments.
- **Shiller (1998)** stated that mental accounting depicts the inclination of individuals to take place specific occasions into distinctive mental accounts in light of external characteristics.
- **According to Shefrin (2001)** behavioral finance studies how psychology affects the financial decision making process of investors and ultimately affect financial markets. As we know, psychology explores human judgment, behavior and welfare; it can also provide important facts about how human actions differ from traditional economic assumptions and according to market situations.
- **Schindler, (2007)** stated that behavioral finance is a blend of theories of finance; psychology and sociology (see Figure 1.1). The model of behavioral finance explains people's sentiments and market anomalies.
- **De Bondt et. al., (2010)** defined behavioral finance as a sub theme of behavioral economics in which consolidated outcomes from psychology and sociology takes the shape of behavioral finance models and theories.
- **Hershfield & John (2018)** rightly studied that because many financial decisions of human beings involve a trade-offs between present and future selves, with the present self often being prioritized, this review highlighted interventions that makes the future self-more vivid to decision makers. The researcher has discussed the theoretical background underlying such interpose.

CONCLUSION

Behavioral finance deals with the study of investor's psychology and its role in making financial decisions or decisions related to investment. It augments the traditional finance theories that dominated the realm of academics, which assumed speculators behave sanely and efficiently. Behavioral finance has key remarks about both cerebral and practitioners. Behavioral finance provides the groundwork for evolving theories for an intense apprehension of the psychological process involved in financial decision making. The efficacy and envisions of the investors in making financial decisions can only be refined through the expeditious enlargement of behavioral finance. It is through the rapid developments and improvements in behavioral finance in the coming years the efficacy and foretelling power of investors can be improved. The behavioral biases of the investors have been and will always continue to affect human choices while making investment decisions. Therefore more intense analysis of this field is required in today's time.

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BENEFICIAL EFFECTS OF YOGA-THERAPY IN CONTROLLING DEPRESSION, ANXIETY & STRESS PREVALENT IN OFFICE GOERS DURING THE COVID-19 PANDEMIC

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ABSTRACT

The Covid-19 pandemic transmits serious ill effects on people's health and mental well-being all over the world. Constant lockdown, job loss, and a rise in health problems inflict major mental illnesses on office goers, such as stress, anxiety, and depression. In the current study, 240 office workers who self-identify as having the above common mental illnesses (such as stress, anxiety, and depression) seek out traditional treatment at Patanjali Yog Gram in Uttarakhand, India. With the above objective, Yoga therapy was used as an intervention to treat the above mental disorders. Before and following the intervention, the DASS-42 scoring system was used to examine the same. After 30 days of the therapy, the stress, anxiety, and depression levels were found to be significantly decreased in the participants. A two-sample one-tailed paired t-test further statistically supported ($p < 0.001$) the effectiveness of yoga therapy in reducing the common mental disorders. Thus, the results led to the conclusion that yoga therapies taught by the Patanjali Foundation in India, had a promising impact in controlling the common mental disorders in office-goers during the pandemic situation.

Keywords: Yoga; Stress; Anxiety; Depression; Office-Goers; COVID-19

INTRODUCTION

Since December 2019 the world has faced a new infectious illness, COVID-19. It was first observed in Wuhan, China, and spread throughout the world in months (Zhu et al., 2020). The Covid-19 pandemic hit hard from the onset of 2020 in India. As of 7th October 2022, according to Indian government figures, India has the second-highest number of confirmed cases in the world (after the United States of America) with 44,606,460 reported cases of COVID-19 infection and the third-highest number of COVID-19 deaths (after the United States and Brazil) at 528,754 (Ritchie et al., 2022) deaths (Gettleman et al., 2021). In May 2022, the World Health Organization estimated that 4.7 million excess deaths, both directly and indirectly related to COVID-19 have taken place in India (Grimley, 2022). To reduce the infectivity of the virus, the Government of India took several measures imposing a lockdown for several days. This results in the ceasing of daily working operations in industries and other organizations. Office goers who lost their jobs or comply to work from home at a less income, were affected significantly during this lockdown period all over the world. In April and June 2020, the International Labour Organization estimated that an equivalent of 400 million full-time jobs was lost across the world due to the COVID-19 pandemic (McKeever, 2020). Thus, the impact of COVID-19 is affecting people at three levels: physical health, psychological health, and economical level worldwide. Physical health is incomplete without psychological well-being and economic disruptions can affect both these factors (Rehman et al., 2020).

Although human beings have the coping mechanism to adjust to the demands of the situation, at the same time, it is ineffective to adopt and adapt to the environment. If the demand of the situation exceeds the coping capacity of an individual, then a psycho-physical deviation arises among the individuals, known as stress. This stress further causes anxiety and depression among them (WHO, 2022; Rehman et al., 2020). Due to several related factors as well as physical problems, the pandemic has significantly increased the prevalence of prevalent mental disorders

in office workers (Rehman et al., 2020). Office workers who work from home may have fewer opportunities to interact with co-workers and make fewer physical movements, such as walking less between meetings (Tavares, 2017). Additionally, prolonged screen exposure from full-time computer work can cause weariness, exhaustion, headaches, and eye-related issues (Majumdar et al., 2020). Living alone and working full-time from home without regular face-to-face interactions and social support might increase the risk of mental health problems like depression and social isolation (Tavares, 2017; Mann & Holdsworth 2003). Others may find it challenging to mentally separate themselves from work due to blurring work-life boundaries (Vander et al., 2017) Which can increase stress and anxiety (Evanoff et al., 2020). The sudden transitions to work from home (and other elements linked to the COVID-19 pandemic offer a distinctive environment for examining the impact of working from home on physical and mental health. Social and behavioral factors have the most overt effects on health. Particularly, the mandated lengthy confinement to the home for daily office-goers during the pandemic may have contributed to emotions of general anxiety and depression, which frequently result in modifications to routines and eating habits (Evanoff et al., 2020). These modifications to eating habits and physical activity patterns may combine with other common mental disorders, influencing both physical and mental health (Schnitzer et al, 2020; Ricci et al., 2020). Traditional involvement is necessary right now to handle the circumstance. Since contemporary treatment can only temporarily suppress the symptoms, the general welfare is at risk. Traditional Indian health practices yoga, have been known to prevent, treat and control several diseases (Kumar et al., 2022; Choudhary et al., 2019; Mishra et al., 2012; Sengupta, 2012). These customs date back 5000 years and are mentioned in classical Indian literature. One of the structured lifestyle activities that encourage the unification of the mind, body, and spirit is yoga. A recent study also suggested that mindfulness meditation help patients in the reduction of psychological symptoms of stress-related disorders, illness, anxiety, and chronic pain (Carmody & Baer, 2008). Yogic breathing exercises (Pranayam) are very effective in relieving post-traumatic stress disorders and depression (Descilo et al., 2010). Some studies suggest that yoga and meditation are personal enhancers that help women working in the IT sector achieve work-life balance (Bharathi and Mala, 2016). Additionally, yoga and meditation have been shown to lower stress in workers who are complaining of burnout (de Bruin et al., 2017). Intensive care nurses have busy and stressful jobs, often putting them at risk of burnout. A study has shown that yoga and meditation can be effective in the well-being of intensive care nurses (Jarden et al., 2019). During the lockdown, online yoga can be a practical way to help employees' mental and physical well-being (Sharma et al., 2020). Another study found that online yoga helps improve coping mechanisms in those working from home during the epidemic by lowering perceived stress, depression, and mental well-being (Wadhen and Cartwright, 2021). Yoga has also been demonstrated to reduce work stress in female nurses (Miyoshi, 2019). Yoga training enhances physiological stress indicators in working women (Kurwale and Gadkari, 2014). The COVID-19 epidemic has caused extreme psychological distress to many individuals.

The Common Yoga Protocol was proposed by the Indian government for International Yoga Day. This Protocol includes all the aspects of Yoga practice, for instance, postures (Asanas), breathing techniques (Pranayama), and meditation (Dhyana) (Common Yoga Protocol, 2014). When compared to no therapy, workplace yoga treatments were more successful at reducing work-related stress. The need for yoga for better balancing of life at workplaces, among women and other employed people has also been studied previously (Shohani et al, 2018; Sharma et al, 2020; Puerto Valencia, et al 2021).

With the above viewpoint, the present study would address a practical solution for office-goers who seek intervention for their well-being. The prime goal of the study is to scientifically validate the effectiveness of Yoga in reducing common mental disorders like anxiety, stress, and depression.

METHODOLOGY

Participants Recruitment

To assess the level of anxiety, stress, and depression, online pre, and post-intervention were undertaken on office workers from 1 May 2021 to 12 September 2021. Individuals were recruited for participation using social media, text messaging, and e-mail. Every participant has provided informed consent for their active participation. All Questionnaires were conducted in the Indian Hindi language. The study comprised office workers ranging in age from 17 to 70 who were serving during COVID-19. A total of 240 people were asked to contribute data via the (DASS-42). It asked 42 questions about depression, anxiety, and stress. The DASS-42 is made up of 42 items divided into three categories: depression, anxiety, and stress (Lovibond, and Lovibond 1995). Depression is addressed in questions 3, 5, 10, 13, 16, 17, 21, 24, 26, 31, 34, 37, and 42. Anxious is represented by questions 2, 4, 7, 9, 15, 19, 20, 23, 25, 28, 30, 36, 40, and 41, whereas stress is represented by questions 1, 6, 8, 11, 12, 14, 18, 22, 27, 29, 32, 33, 35, and 39. The response options for this scale were: 0: did not apply to me at all; 1: applied to me to some extent or some time; 2: applied to me to a significant degree or most of the time; and 3: applied to me a great deal or most of the time; Examples of the responses to the questions were: 'I appeared to over-react to some circumstances' or 'I felt irritated'. Responses were classified with the cut-offs adopted by Antony et al. to identify depression, anxiety, stress, and thus symptom rates (no symptoms, mild, moderate, serious, and extremely intense).

Due to COVID-19 there were certain restrictions, we have followed the guideline of physical distancing and that's why in place of an offline questionnaire we have used an online Google form. In the first phase, the data was collected from 240 participants. The study followed all the provisions of the Personal Data Protection Act, and the surveys notified respondents about the voluntary nature of their involvement and the necessity for their consent to answer the questionnaire. The DASS-42 scale was used on the socio-demographic variables of the participants with the assistance of the researcher and the rating was performed according to table 1. The DASS-42 online google form questionnaire was used to collect responses, which were then exported to Excel for analysis.

Table 1. DASS scale rating

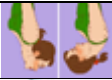
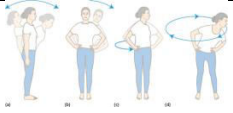
Severity	Depression	Anxiety	Stress
Normal	0–9	0–7	0–14
Mild	10–13	8–9	15–18
Moderate	14–20	10–14	19–25
Severe	21–27	15–19	26–33
Extremely severe	28 +	20 +	34 +

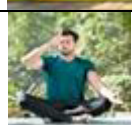
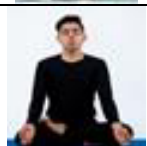
(Source: Lovibond, and Lovibond 1995)

Intervention

All the recruited participants were subjected to yoga practices for 45-50 minutes in the morning. The protocols were governed by experts from Patanjali Yog Gram. The detailed protocol with the representative figures is given in Table 2. For personalized monitoring, extra supervisors are also employed. The session was solely conducted online mode due to Covid Restrictions. The total duration of the course was 30 days without break. After 30 days the participants were asked to fill up the same DASS-42 form in online mode to examine the effectiveness of the intervention.

Table 2. Yoga protocol for Depression, Anxiety, and Stress

Sr. No.	Asanas	Protocol	Yoga Pose	Duration
1	Prayer	To Enhance the benefits of practices		2 Minutes
2	Loosening practices	Increase microcirculation:		5 Minutes
		Neck bending		
		Trunk movement (Katishaktivikasak)		
		Knee Movement		
3	Yogasanas (1 minute per Asana)	Standing postures		15 Minutes
		Tadasana		
		Vkrsasana		
		Padahastasna		
		Ardhachakrasan		
		Trikonasana		
		Sitting Postures		
		Bhadrasna		
		Ardhastrasana		

		Sasankasna		
		Vajrayana		
		Prone Postures		
		Bhujangasana		
		Salabhasana		
		Makrasana		
		Supine Postures		
		Setubandhasna		
		Uttanpadasna		
		Ardhahalasna		
		Pavanmuktasna		
		Savasana		
4	Kapalbhati	Forceful exhalation by contracting the abdominal muscles		2 minutes
5	Pranayama (2 minutes each)	Nadishodhana or Anulomvilom (Alternate nostril breathing)		8 minutes
		Satali Pranayama		
		Bhramari Pranayama		
		Dhyan in Shambhvi Mudra		
6	Meditation	For Stress-free deep relaxation and silencing of the mind	-	12 minutes

7	Sankalpa	Commitment to be a healthy, happy, peaceful, and joyful human being	-	1 minute
8	Shanti Patha	Prayer for happiness, health, and peace for all	-	1 minute

Statistical Analysis

The data is exported from google forms to excel format directly. The normality of the data was checked by skewness and kurtosis in excel. The demographic profiling of the data was further investigated by the Chi-Square test to check the association with mental disorders. To validate the effect of the intervention, two samples of one-tailed paired t-tests were applied at a 95% confidence interval. All the data entry, as well as statistical tests, was performed by Graph Pad Prism, USA.

RESULTS AND DISCUSSION

Demographic Profiling

The 240 participants were engaged in Yoga therapy for 30 days. All the subscales of DASS (DASS-A; DASS-D; DASS-S) and overall DASS score in both pre and post-intervention follows a normal distribution ($-4 < \text{Kurtosis} < 3.2$ and $-1 < \text{Skewness} < 1.5$; $p < 0.05$). Among the participants, young-age officegoers are 29.5% whereas middle-aged participants were dominant at about 51.67%. the Late age office goer was only 18.75%. A significant association between the age groups with the mental disorders was observed (Chi-square 19.83; $p < 0.0001$). As per the observed data, most of the participants (75.83%) were married and only 24.17% of participants were unmarried. Although, a significant association was also found with Marital status (Chi-square 34.32; $p < 0.0001$). Although no association between gender and mental disorders was found, where 56.25% of patients were male and 43.75% were female (Table 3).

Table 3. Demographic data with related Factors

Parameters	Range	Observed Number (Proportion in %)	Chi-Square Value (Df)	p -Value
Age Group	18-30	71 (29.58%)	19.83(2)	<0.0001
	21-45	124 (51.67%)		
	46-60	45 (18.75%)		
Gender	Male	135 (56.25%)	1.9(1)	0.08
	Female	105 (43.75%)		
Marital Status	Married	182 (75.83%)	34.32(2)	<0.001
	Unmarried	58 (24.17%)		

DF represents Degrees of Freedom

Effect of Yoga Intervention (Yoga Therapy)

Depression Anxiety Stress Scale used the 42-item DASS version was used to assess depression, anxiety, and stress. There are 7 items for each subscale. The aggregated number for each subscale was multiplied by 2 and interpreted as suggested by the authors (Lovibond and Lovibond 1995). The severity ratings used to interpret are shown in table 1. The responses were collected on a 4-point rating scale ranging from 0 to 3. Cronbach's alphas were found to be 0.74 for the stress subscale, 0.72 for anxiety, and 0.70 for the depression subscales. As per previous studies, the alpha values were agreed to accept the internal consistency of the data. According to table 4 and Figure 1, a significant change in common mental disorders like stress, depression, and anxiety was observed. The mean score of DASS-A (Anxiety) was reduced by about 10 in patients after taking Yoga therapy. In the case of mean scores of DASS-S (Stress) and DASS-D (Depression), the reduction was 13 and 11 respectively. The result implies that the severe range in the case of anxiety disorder and the moderate range of Stress and Depression disorders

have been reduced to the normal range after completion of the Yoga therapy for the said duration. The two samples (pre and post) one-tailed paired t-test results indicated a significant difference between pre and post-scores of Anxiety depression and Stress at a 95% confidence interval. Thus, the effect of Yoga therapy proved to be significantly useful for the participants.

Table 4. Effect of Intervention on Stress, Depression, and Anxiety

Sets	Descriptive Statistics			Significance Test	
	Mean Score_Pre±SD	Mean Score_Post±SD	Mean Diff.	t-Value	Adjusted p Value
DASS-A(Anxiety)	16.10±9.82 (Severe)	5.99±5.03 (Normal)	10	8.1	p<.001
DASS-S (Stress)	20.82±9.89 (Moderate)	7.78±5.77 (Normal)	13	10	
DASS-D (Depression)	17.86±11.07 (Moderate)	6.90±5.91 (Normal)	11	8.7	
Overall DASS	55±29.19 (Moderate)	21±15.92 (Normal)	34	27	

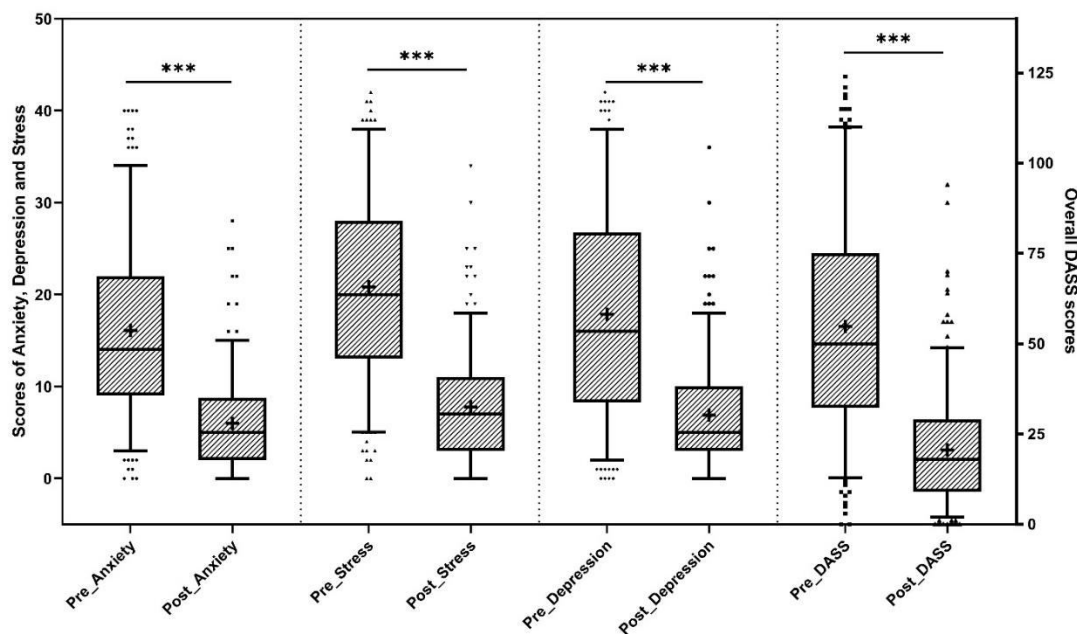


Figure 1. Effect of Intervention in Anxiety, Stress, and Depression with Overall DASS score.

***p<0.001

The effect of Yoga on different lifestyle diseases were proven already by different studies. In recent years the integrated approach that is imbibing traditional medicines/ therapy with modern intervention is gaining popularity to combat diseases. The results showcased here could be justified and supported by recent studies (Maddux et al., 2018; Masoumeh et al., 2018; Vajpeyee et al., 2021) where Yoga therapy alone or in combination with other therapies proved to be useful during the Covid-19 Pandemic. Our study could hold its unique feature as we solely focus on the office goer who developed moderate to severe levels of mental disorder due to fear of loss of jobs, not getting new employment, or reduction of monthly income with associated COVID-19 health effects. The sample size of the present study is also justified according to the statistical validation and also could portray the optimistic effect of Yoga on a larger group of people. The only limitation of the study is that we could not capture any imaging

technique or biochemical investigation in support of our study. The limitation is mainly implied due to Covid restrictions.

CONCLUSION

This present research shows that mind-body relaxing exercises such as yoga practices have a definite effect to reduce common mental disorders like stress, anxiety, and depression. Yoga practices are necessary for long time benefits for a sustainable and quality life. It could be concluded that as a potent science practicing Yoga regularly may be incredibly beneficial in terms of restoring health as well as controlling or curing disorders when properly practiced.

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Conflicts of Interest

There is no conflict of interest among the authors or with journals.

Ethical Approval

This article does not contain any studies with clinical studies by any of the authors.

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BEST SECURITY PRACTICES FOR ONLINE- BANKING- A STUDY**Rajapurohitham Sadhana and Aduri Sai Prasanna Likhita**Bhartiya Vidya Bhavan, Bhavans Vivekananda College for Science, Humanities, and
Commerce, Sainikpuri, Secunderabad, India**ABSTRACT**

Today's world is one with increasing use of online access to services. The internet has become a sensation, it is something that humans cannot function without anymore. The world is at our fingertips now. The quest for money by all class of citizens has made money essential commodity. Money is the deity that rules the world, today no money invariably means no nation, no man. The banking system is one of the major aspects driving the economy of a country and one part of which is growing hurriedly is "Internet Banking". Online security breaches and cyberattacks are a threat to our electronic commerce. Many hackers are able to break through an organization's network and access important information. To provide customers with safe, consistent, robust online environment to do online banking the banks should implement some practices. This research tries to explore several of technologies and security standards that different researchers have recommended to general public for safe internet banking. We shall also learn how to prohibit fraudulent online transactions following this theory.

Keywords: Internet Banking, fraudulent activities, Hackers, Security standards, Cyberattacks

INTRODUCTION

The impact of rapid technological changes, has led online- banking hugely accessible over the past 10 years. Today huge part of the market conducts money transactions electronically and millions of people around the world use internet to make various payments which allows different customers to transact financial transactions online through a website or applications. Online banking is also referred as e-banking, virtual-banking, internet -banking. An online-banking system is split into two phases: Registration and login phase. The process of registration follows the same pattern in each bank. The login phase consists of security levels such as the provision of an ID and password, followed by an advanced security system with two- factor authentication techniques, such as One-time password, biometric system, e-token and a code from the respective bank etc. So, these two -factor authentication techniques are used to improve the security of the online-transactions, allowing them to be protected against the various attacks.

During online-banking, the stakes are high, not only are large sums of money at stake, but banks and other financial systems are also at risk. Based on the gathered data, we the authors will now address several issues associated with the security of contemporary and digital online-banking:

Security Issues Faced During Online-Banking:

- **Malicious Software:** Shortly known as 'Malware' is used by criminals to disrupt computer operations and access confidential information, this Malware is further divided as Ransomware and Trojans:

Ransomware: A form of malware that tries to encrypt your data and then extort a ransom to unleash an unlock code. Most ransomware comes via malevolent e-mails. It is highly unlikely that you can access your files again.

Trojans: A banking trojan is a backdoor program that is used primarily to steal banking credentials by remotely installing malicious software on a victim's computer system.

An updated antivirus and firewall can protect any user from this kind of attacks

- **Spoofing:** Website spoofing is the act of creating a website, as a hoax, with the intention of performing a fraud. For these fake websites they use the same logos, color schemes, fonts, pictures to mimic the original page. The customer might get fooled on entering details and passwords that the website asks because by using these details the fraudster robs the customers.
- **Virus:** It is a piece of malware that attempts to steal the credentials from the financial institutions and corporate bank accounts, it can gain access to their financial information
- **Lottery Fraud:** In this scam, the sender requests to help in facilitating the transfer of a substantial sum of money or that you have just won a lottery, generally in the form of e-mail or phone call. However, in order to receive that money, you will be required to provide your bank details and personal identification number.
- **Identity Theft:** This occurs when someone steals your personal information and uses it to take your money, open credit accounts, file tax returns, health insurance claims and many more without your consent. There's no way to inoculate yourself against identity theft completely.
- **Pharming:** Fraudster hijacks the user's browser settings that automatically redirects users to the malicious site.

Protect Yourself from Being Scammed:

- **Use Smart, Verified Apps Only:**

Mobile apps are now widely used and accepted by the general public, and are utilized for e-banking applications and to store the personal data. Though these mobile wallet and e-banking apps help you to transact within minutes, we need to be mindful that these apps collect your sensitive financial data. So, make sure that you download the apps from a valid app store and website and make sure you check on the privacy policies of the apps as all of them do not seem to be secure.

- **Make Sure You Use Secure Connection:**

Banking on an unsecure network or a public access computer is a strict no as it makes you susceptible to all kinds of cybercrime. This is because banks use encryption to safeguard your details but mostly these public networks aren't encrypted and if the network itself isn't safe then it makes hackers job easy to steal our data and transmit to others.

- **Use Advanced Anti-Malware Program:**

It will protect both classified and unclassified attacks on your computer and other digital devices you are using. Make sure your anti-malware program is updated or its auto update option is "on". Make sure that the antivirus program is able to detect newly created and mutated malware threats even before it's included in the database of the automatic updates.

- **Maintain A Strong Password Making Regular Changes:**

Try not sharing your personal details with anyone and keep it confidential. Don't use common passwords or the password that can easily be guessed. Use a combination of alphanumeric and special characters and make sure the password length is more than 8 characters. Make sure you regularly change the password and also ensure that they remain confidential and safe.

- **Always Get Information from The Bank's Official Websites:**

Do not search for a bank customer care number or other important numbers on Google. Do not blindly click on links you get through SMS first make sure that it is an official one as these might lead you to some fraudsters. Check the customer care or branch phone numbers on the official website only.

- **Always Log-Off:**

Always remember to log off from banking site and close your browser after completion of your online banking.

This will prevent other users from accessing the system without verifying their credentials.

- **Do Not Share Your Bank Credentials With Anyone**

Don't share your personal information like debit/credit card details/CVV/OTP/UPI PIN to anyone even though they pretend to be bank officials. Ensure that you keep your credentials private.

- **Do Not Ignore Security Updates**

While software updates help tackle bugs and other issues, they can also help in minimizing the cyber risks. The latest OS comes with latest security patches that may be difficult to overcome by a hacker.

- **Check Your Account Regularly**

Always keep checking your mini statement regularly and make sure there aren't any unusual transactions. Some banks may also provide us with an option called Log-in activity- you may open it and know all those devices that are currently logged in or recently logged off.

- **Block Spam E-Mails**

Spam e-mails are specially used for phishing attacks. They often influence you to click on links that can directly download malware to your computer or direct you to a fake website. Only open the mails received from known senders and also do not click on any link or attachment unless and until you trust the sender.

LITERATURE REVIEW

- Kiran Kulshreshta, Jyoti Nain (May 2022) conducted research on the best security practices for Online Transactions. The purpose of the study stated to provide a platform-independent secured authentication and payment mechanism for online-transaction.
- Samir Pakojwar, Nilesh J Uke (October 2014) conducted a study titled "Security in Online-Banking Services"- a comparative study. This study tries to explore the technologies and safety practices to banks for secured internet-banking.
- Samuel Eneji, Fergus Uchenna, and Ibe Walter Eyong (November 2017) conducted a detailed study of "Electronic Banking Security Techniques and Safety Measures. The paper reviewed security measures to combat such ugly security trends with the modern banking systems and also to analyze the attacks on online-banking systems.
- Junsheng Wang, Qingsu He, Qingzhi Han (2016) conducted a study titled on "Internet Payment Security based on the Strong Authentication of the Timeless and Multi-Factors".
- Frimpong Twum and Kwaku Ahenkora (November 2012) conducted a study titled "Internet Banking Security Strategy: Securing customer trust". The research focused mainly on perceptions of trust, awareness, and knowledge on Internet banking security and usage.
- Marinela Vrincianu and Liana Anica Popa (June 2010) researched on a study titled "Considerations Regarding the Security and Protection of E-Banking Services, Consumers Interests". The study aims to analyze the potential dangers threatening the security of e-banking services through a comprehensive investigation of the relevant literature.

OBJECTIVES

- This research aims to study the best security techniques to prevent fraudulent activities in online-banking.

- It also aims to study the security requirements and safety measures that the payment systems and individuals must take to prevent scams.

RESEARCH METHODOLOGY

Main purpose of the study is to gain a better understanding on what are the common issues faced by the individuals while transferring the payments electronically and various kinds of frauds committed. It also focusses on the different ways in which these frauds can be prevented, the safety measures to be taken by individuals as well.

The primary theoretical data for the study is collected from verified and trusted websites and journals, and newspaper.

CONCLUSION

One of the most challenging issues facing the banking industry currently is the security challenges it faces. While technology and the availability of the internet has made banking convenient, it also brings in new challenges and one of the major risks is cybersecurity. These security breaches lead to frauds and other malpractices. Attacks have become increasingly sophisticated as technical advancements have developed. This study explains about the various techniques that are to be followed for the security and authentication of the online-banking applications. Integrating security solutions for online-banking and online-transactions is critical, for protecting both the client's and the bank's data. Malware, lottery frauds, identity thefts, virus etc. are explored in this study as the security issues faced by the people.

So, it is very important for each and every individual to keep an eye and be conscious about the security problems taking place in transferring payments electronically and each one should maintain their personal data, passwords, bank account details confidential and safe. Be very conscious about spam messages, mails and do not leak your personal details by mistake to any random person. It is very important to maintain strong passwords and keep checking them regularly, keep updating the virus on your systems and try not searching data on invalid and unsecure websites.

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BRAIN AND BRAND LOYALTY: A SCIENTIFIC INVESTIGATION FOR UNDERSTANDING THE RELATION BETWEEN LOYAL BEHAVIOUR AND BRAIN

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ABSTRACT

Engendering loyalty is the game of Psychology. It's not about creating blockbuster products with shining packaging, colourful advertisements, and slogans, instead it's about understanding the current of brain and connecting marketing activities to the mechanism of the brain in a way that builds long lasting relationships. At the bottom level marketers need to peep through the brain of the people and understand how the mechanism of the brain and its chemicals affect the mood of consumers. Much of the failure in the markets is due to our narrow understanding of human the brain. A gulf between marketers and customers can easily disqualify the success rate of a great product. Marketers who are inclined to plant loyalty are never self absorbed. Their gaze is directed toward not inwards. When they meet potential customers their first move is to get inside the customer's skin, to see the world through his eyes. They understand that self absorption is a sign of impurity. It is against the ethos of building loyalty. Smart marketers understand that self absorption is a sign of insecurity. Everyone has insecure ego but savvy marketers manage to ignore them, finding therapy for moments of self doubts by being insightful of the human brain. This gives them the buoyant spirit- they love to be around the customers. Getting into customers' skin, imagining what it is like to be them, help the great marketers gather valuable information that help them building loyal consumers.

Keywords: Dopamine, Brain, Loyalty, Oxytocin, Brand, Rituality, Marketing

INTRODUCTION

Loyal customers make companies immune to recession, competition and their strategic move. Loyalty factors offer a company flexibility to increase the price, keep the competitors scratched their head. It triggers strong words of mouth. And what's more, it is the ultimate reason for every company's growth. Great marketer endeavors to make his customers loyal to their brands.

Further, effort to attract new customers is expensive; indeed, in a saturated market, it may be impossible to find customers. Indeed, savvy marketers, in order to build up loyalty, have gone to redesign the business models. And to make this a reality, they are engaged in the war of strategic marketing: they add new value, enhance the image, deliver it at the whims of customers, worships the big customers, change the strategy to the tune of customers taste , restructure and reengineer the organization just to cultivate emotional glue with the people.

In this effect, customer care departments get highly sophisticated linguistic and psychological training to connect well with the potential customer; and they also get emotional training to ease up the grunts. Broadly speaking, every company's ultimate purpose is to make their customers loyal. Marketers are also using sophisticated mathematical tools to filter out the loyal customers and shockingly find out that 80 percent of the consumption is done by the 20 percent of the users. The twenty percent statistic is the force of loyalty. These statistics hold true for fast food franchises such as MacDonald's.

But all said well, we have heard the example and the resulting effect of loyalty in every popular marketing book. Every marketing guru seems to emphasize the commercial benefit of loyalty without explaining the psychological nuances underneath the loyalty. We know much about the marketing process involved in creating loyal customers by far, but as marketers we

don't know much about the thought, feeling, and perception engendered by loyalty programmers. Lack of conceptual knowledge and semi idea about the mechanism of human brain and how it has its bearing in the making of loyalty, often leads to making wrong decisions and can be a case of marketing myopia. On the other hand, deep psychological insight helps the marketers navigate the road for making the element of loyalty and reduce the risk of brand faltering. So let's crack the psychological code of loyalty and its relation in terms of marketing.

Great marketers are people who understand the tremendous emotional power contained in a moment of surrender. They know what happens when people are in love with the brand. The savvy marketers analyze the psychological component of the process—what spur the imagination, what casts a spell. By instinct and dedication for customer enlightenment and build trustful relationships, they master the art of making people fall in love with the brand. They make the customers the core of companies' organizational culture across all departments and functions, and ensure each and every employee views any exchange with customers as an indispensable act of laying the foundation sustainable relationships.

Loyalty is the new hot mantra of every marketer. Loyalty means when people decide to purchase a product, they will think and only think about your product. The thought of second alternatives and any substitute will not spring up in his mind no matter its frequent availability. And Unavailability of the preferred product at a certain place and time does not result in abandonment of purchasing or an attempt to seek out substitutes; people instead go the extra mile to obtain a product to which they have their allegiance. They are ready to endure pain to acquire their favourite product. And not having it for a while makes them restless.

There is a difference between repeat buying and loyal buying. In repeat buying we buy something because the product is available at the next door or for its functional reason; if it works, let's have it. But when people become loyal to a product they reject more valuable products. Their buying behaviour has the back up of emotion of trust, hope. Their loyalty get strengthened because for them their favourite product not only fulfills their basic needs but feeds their narcissism and identity. Thus even shiny new competitive and better substitute pale out in the face of loyalty issues.

To have a holistic perspective on the word loyalty we need to transport ourselves back into the human early evolutionary period. During the early evolutionary period, the world was very recent and beautiful for men. It was a world of fantastic fauna and flora. Men did not have the burden of political and regional barriers. This was the day when humans enjoyed their wholesome freedom; freedom without much discipline except the undefined and unpredictable threat posed by the natural calamities and the wild animals. Every movement and search for the food was fraught with risk. Moreover, they had not much arsenal to safeguard themselves against the sturdier and bloody predator. But they had one of the strongest social weapons to outsmart the wild- trust. Yes! It was trust. Which breeds loyalty? Trust is a very special human experience, produced by the chemicals oxytocin. True trust can only exist among people. When we can only trust others when we know they are actively and consciously concerned about us. When trust builds over a course of time, loyalty develops. Loyalty is the culmination point of trust. Loyalty bonded rugged and primitive people into a single thread. With their commitment for the group, they became stronger and aggressive. It was one of the genesis of social makeup. The loyal tribes were committed to protect themselves. The act of group loyalty symbiotically wards off a much stronger enemy and sudden adversity. The cohesiveness caused by the layer of trust and its subsequent effect – loyalty, fortified them against the menacing environment, as they cuddled together to warm up their naked body.

Everybody understood its essence. It became the constitution of every family, tribe and society. Loyalty means a strong trust level which means people have doubtless faith in each member of the group. Minus loyalty life would have been endangered and our ancestors might not have survived amidst the unusual odds and challenges of life. It triggered spontaneous communication. On the way to hunting they used whisper, made hush communication, inferred through eye, signaled and implied through various gestures. The result – they overcame the day to day hurdles of misunderstanding and survived.

The sense of loyalty and its virtues are well realized and respected. People did not even imagine living without it, for without its practice, destruction would have been inevitable. Slowly and gradually it crept into the living style of early men and then had been unconsciously passed on from one generation to the next, from millennia to the new generations. The loyalty factor came out as a clear winner in each and every generation that it became a part of human DNA and a remarkable propeller for every civilization. This is why we still silently have strong desire to put our faith on something or somebody who are trustworthy. Around the globe, brands which win our trust are more likely to receive consumer allegiance.

Formation of Loyalty

Loyalty is an emotional behaviour that has been repeated many times and that eventually ingrained in our behaviour. The culmination of loyal buying behaviour starts with trial and error. Whenever a customer encounters or experiences a new product or brand, his brain has to make a decision. How do I respond to this? The first time a consumer comes across a problem. He is not sure how to solve it.

“Neurological activity in the brain is quite high during this period. Consumer behaviour is characterized by careful analysis and making conscious decisions about how to act. He takes tons of information without knowing which information is important and which is not. His recent perception about the new product is moreover not fully structured with. The brain at this crucial period is busy learning the most effective course of action.”

(Clear, 2021, p. 45).

Whenever a customer faces a problem repeatedly, his brain begins to automate the process of solving it. The behaviour of selective bias and confirmation bias are exercised. But once perception about the product is formed, the level of the brain’s activities decreases. Customers learn to lock in on the cues that predict success and tune out everything else. The positive and selected information and liking of the product gets structured and when a similar situation problem arises, he knows exactly which product to look for. There is no longer a need to analyze every angle of the feature of a product. His brain skips the process of trial and error and creates a mental rule. The cognitive script can be followed automatically whenever the situation is appropriate.

A customer’s positive belief for a product means his memory has been structured thoroughly and has an organized thought about the concept for the product. This means he does not need to be pursued. For buying a brand all he needs is a feeling of deprivation. This is why we prefer the ease of sticking to one tried and tested product over the difficulty of grappling with the new one.

“Yet there are deeper forces behind our resistance to thinking. Questioning ourselves makes the world more unpredictable. It requires us to admit that the fact may have changed, that what was once right may now be wrong. Reconstructing something we believe deeply can threaten our identities, making us feel as if we are losing part of ourselves.” (Grant, 2021, p. 25)

Rethinking about use of a new product is like playing betrayal with the product or a brand that goes directly against the conduct of fidelity. In addition to this, the fear of cognitive miseries

propels the cause of being a loyal customer. The fact of being cognitive miseries means our brain does not invest unnecessary energy that is perceived to be worthless. Our minds are always active, even when we sleep; our brains remain in active mode. In day hour, it sights many stimuli but because of its cognitive miseries it discards much of the stimuli.

This is why new products struggle to make their way into the nodes of our brain and why it is very difficult to break down the barrier of well entrenched competitors. Cognitive miseries disposes a customer to stay longer with the already settled brand, this further solidifies the love affair between loyal consumer with his existing product and why new entrants have to struggle with and carve out new segments for themselves.

Loyalty Comes Out of Human Insecurity

Man is an insecure animal. His life is warped up with the feeling of fear that lives with him until he dies. He is insecure about the future, for his financial security, economic recession, career family security and the limited life itself. Natural disaster, war, hunger, torture, global warming. These are some of the pain stricken issues that invade our brain in our daily courses of life. In addition to this people are bombarded with plenty of uninspiring products struggling to catch up our eye. . The technological change has made a seismic shift in economic activities. All these ultra tech and unprecedented environmental phenomena have generated an overwhelming cognitive burden on our brain.

“The rhythm and pace of modern life gives us too little time to assimilate, reflect and react. Emotions have their own agenda and timetable but our rushed life, burdened with overwhelming information, gives them no space, no airtime and so they go underground.” (Goleman, 1999, p. 67).

We are thus getting away from ourselves. Our inability to assimilate and make sense of the things around us tends to make wrong judgments, and therefore cynical about external stimuli. The effect of all these erratic and combative stimuli has made our behaviour racy. This is why today pedestrians clip along ten percent faster than they used to be.

The more unpredictable the world becomes, the more we feel insecure. The feeling of insecurity disposes us to grope for a sense of control over our life. And the more anxiety and uncertainty we feel, the more we adopt superstitious behaviour and ritual to shepherd through. We need ritual because ritual makes our life structured in the unstructured world. It makes our values tangible. Every company applies a component of ritual with its brand because through it people experience a brand more memorably. Rituals are visual and experiential representation of a brand. The mechanics of rituals helps a brand sound important. Rituals lay the foundation of constant experiences and experiences generate emotions. Emotion generates values. Values generate narratives. The narratives we invent for our preferred brands around what's important and what's not, what deserves and what is not help in laying the seeds of brand loyalty as these stories stick with us, they determine how we fit ourselves into the world and with each other. A user of Apple Computer builds and flashes out the narrative to the world that he belongs to an innovative class. The narratives we make determine how we feel about ourselves with respect to the chosen brand. Narratives act like computer programming, encrypt deep into the nodes of our brain and strengthen our memory. Strong memory towards particular objectives predisposes natural and emotional inclination towards an object or a product. It means they become loyal

The process of becoming a loyal customer has to pass through a series of stages. Great companies understand the importance of ritual and how in subsequent courses it generates brand commitment. They strategically create rituals around their brand to improve people's commitment. We can have lively experience of ritual when we visit McDonalds. The capital M letter standing tall and upright, the sense of Americanisms, culture of swift service and young staff wearing particular dress cumulatively reaffirms a particular cohesion, values and reaffirms at the end of the day who we are and what we want to be.

Rituals are designed to be repeated over a long period of time which only lends consumers an even greater sense of importance. - In gist, ritual makes life of the people orderly. And one way to make it easier for the customer is strike up the emotional chord of the customer. A business that looks orderly says to their customer that your people know what they are doing; they assure their customer that while the world may not work, something can. They say to their customers that they can trust in the result delivered and assured people that they can trust in the future. These messages emanating out of crafted rituals around the brand has its subtle effect on the subconscious mind of the customers

The ability to create ritual around a brand endows a company with a potential strength to improve allegiance of the customer towards brands. Rituality has its bearing on the human brain. Apple has created a ritual of innovation and challenging the status quo. Apple logo a bite taken out of it is a remarkable sign of innovation and youthfulness. People carrying the same value aptly fit with the innovative ritual of Apple. Ritual helps people organize memories about a brand as it creates narratives.

“These narratives become the background noise of our thought, the interior decoration of our mind. Despite being arbitrary and completely made up, they seem not only natural but inevitable.” (Manson, 2019, p.56)

The narratives of having special association with preferred brands create a sense of importance. The sense of having special powers buoys people in threatening situations, and helps soothe everyday fears and ward off mental distress.

Brain and Brand Loyalty

Loyalty is not created out of a vacuum. You cannot generate loyalty by doing online stuff, brandishing a brand and doing some gimmick stuff. You must have vision and deep insight about customer's belief, values and aspiration, because it's easy to get people riled up and angry about nothing. But to have hope, people need to feel that they are going to get what they aspire for and which will enhance their style. They should have the hope that they are on the winning side of the brand.

Loyalty factors come out of evidence based on past experience. The past experience extrapolates into hope for the future. Great companies take the responsibility of making the hope of the people tangible. Hopeful customers have faith about the future performance of a brand. Customer's faith with the tangibilized hope for the brand is so strong that they start to experience the brand before having it.

The anticipation level before using the preferred product is quite intense. People feel and see their brand before they have it. They predict that having the brand is rewarding, their level of dopamine spike in anticipation. It is the anticipation of reward not the fulfillment for it that gets consumer behaviour ticked.

“Interestingly, the reward system that is activated in the brain when you receive a reward is the same that is activated when you anticipate rewards.” (Clear, 2019, p. 106).

While with the new product (which might offer better value) people have vague or no anticipation about the product. And under the condition of an unconditioned brain people tend to form their own opinion. Often these opinions are a reflection of confirmation bias: seeing what they expect to see. Loyal customers see the negative aspect of the new product which their favourite products don't have and ignore the positive aspect of the new product.

Anticipation associated with preferred brands spurs our imagination and craving. It also keeps other stimuli and images of other unanticipated brands at bay. The element of anticipation has its relation with craving part of the brain. To understand why loyal customers have spontaneous inclination for their preferred brand we need to dig deeper into the mechanism of the brain.

The loyalty factors are characterized by wanting and desire elements which are emotional in nature. Our brain contains larger space for the desired factors. The wanting centers in the brain is large. The brain stem, the nucleus accumbens, the ventral tegmental area, the dorsal striatum, the amygdala, and portion of the prefrontal. Loyal behavior tends to move smoothly when he is desirous to purchase an anticipated brand.

By comparison, the liking part of the brain, which is not the emotional centre of the brain, is much smaller. They are referred to as “hedonic hot spot” and are distributed like tiny islands throughout the brain. Liking on the other hand is calculative. Most of our behaviours are driven not by liking. When we look at shiny or new products it spur the liking mechanism and does not drive anticipation instead we go into calculative mode. Calculation dithers our behaviour, it makes us cynic and if we are having loyalty for ‘A’ products we spurns out the new ‘B’ brands. Either way, the purchasing done through liking may or may not result in loyalty. Moreover, since the mechanism of liking is calculative and contains smaller space people in the brain, people don’t feel driven to buy or repeat the buying.

“Researchers have found that 100 percent of the nucleus acumens are activated during wanting. Meanwhile only 10 percent of the structure is activated during liking.” (Clear, 2019, p. 101).

These insights reveal the fact that the emotional issue like loyalty breeds another emotion – desire. Desire is the engine that drives behavior because it has the strong back up of the anticipation that precedes it. It is the craving that leads to the response.

Feeling of Loyalty and its Space in the Brain

Smart marketers understand that the real battle of marketing is fought in the brain of the people and not in the marketers. Marketers cannot fight the battle of the brain if they don’t understand the apparatus of the brain and its function; how every chemical has a certain bearing on the mood and emotion of the people. And how a deep understanding of its machinery will help in generating loyal behaviour. Our brain contains many chemicals and each chemical creates a specific mood and behaviour of the people.

Chemicals of the brain like endorphins and dopamine, give us short term rewards to which we can, under the right conditions, become addicted. Marketers who are myopic about the brain build organization and brand to soothe the hunger arising out of dopamine. Dopamine makes our behaviour a bit impulsive, its pleasure seeking in its nature and does not have the patience. Myopic marketers have the ability to arouse dopamine by offering discounted or cheap and shiny products but mostly the pleasure arising out of dopamine induced behaviour evaporates and consumers experience the feeling of remorse and fall victims of post purchase dissonance.

On the other hand there are selfless chemicals, serotonin and oxytocin, which are the chemicals of love and trust and which take time to build up in our system. Before we can enjoy their full benefit. Though we may enjoy the thrill of reaching a goal or winning a race that feeling won’t last. To get more of that feeling we need to win another race and reach a more distant goal. Great marketers who believe in dealing with the chemicals of serotonin and oxytocin have human dimension and the patience to understand and explore the deeper insight of consumer behaviour. Smugness does not affect them. Their philosophies are characterized by “there is always a better possibility” this philosophy does not let their customer’s feeling to sag. They successfully keep the excitement level high by offering unarticulated value. Customer also builds the reason and emotion to hook with these marketers.

We cannot motivate others, per se. Our motivation is determined by the chemical incentives inside every one of us. Any motivation we have is the function of desire to repeat behaviour that makes us feel good or avoid stress or pain. The only things that great marketers can do are by clearly communicating the desire of customers, responding to the unexpressed need or complicated need in a simple and focused manner. Defining clearly the real aspiration of

customers is like cutting the umbilical cord. It's the feeling of aha that a company can offer. And if marketers offer the right product, if the product directly liberates the trammelled wants that works to the natural inclinations of human animal, the result will set the stage for loyalty.

The goal for any marketer of any organization is to find balance. When dopamine is the primary driver, we may achieve a lot, but the consumer will feel lonely and unfulfilled no matter how shiny and discounted the product they buy. Customers live in quick hits; they are always in the search of the next rush. In rushed life, oxytocin, the chemicals of trust and belief take a back seat and dopamine- surging emotion for quick pleasure take up the driving seat. But buying behaviour backed up by dopamine does not help to satisfy the craving which is built to last and hence erode the hope of building loyal customers. Mediocre companies play more on dopamine. Their offerings are characterized by satiating quick fixes. They focus on current profit at the cost of a long term relationship. These quick fixes in marketing activities do not help them to generate loyalty. Loyalty is the end result of great marketing insight and its subsequent implementation.

Marketer must understand the dual function of consumer behavior, one that is led by dopamine and endorphin (selfish chemicals which gives us short term rewards) and the other that is serotonin and oxytocin (the chemical of trust and love) that takes time to build up before a company enjoy full benefits. When customers are living in a hippie environment, the oxytocin gushes but without any specific and measurable goal or ambition. The gushing of oxytocin signifies people unawareness about them. They have the aspiration but they don't articulate it. Great marketers with deep human insight catch up the seething murmur of the consumer and build on the solution based on this unexpressed need. These acts of insightful marketing help them build long lasting customers.

Loyalty is an Emotional Game

Loyalty is not a number game, it's an emotional issue. In the face of emotion, numbers and other benefit hardly counts. Because loyalty is an emotional issue.

"Emotion inspires action and action inspires emotion. Emotion is irrational meaning they cannot be reasoned with." (Manson, 2019, p. 66).

A loyal customer whose feeling is completely entrenched with the image of the product does not get bogged down in the face of flying data and shining communication of competitive and or better products. Contrary to it, the feeling brain becomes more defensive and protects his choice with his preexisting data. Feeling brain acts like a verbally abusive boyfriend who refuses to pull over and ask directions- he hates being told. Because information regarding the competitive or better product comes from outside which is impersonal in nature. While their attested feeling with the product to which they are committed, is personal.

The information and glitter of the newly launched product therefore, fail to capture and win the heart of the customer. When customers have emotional sharing with the product, it transcends beyond the quality issue. This is why even more valuable products stagger and eventually succumb to get through the heart and mind of customers.

Emotion acts like glue which keeps the image and memories of the product stuck in the brain. Our behaviour is moreover determined by how it has been conditioned emotionally. Emotion is the engine of behaviour. It is the womb through which excitement, hopes and trust tumble forth therefore become the propeller of buying behaviour. It is also the reason for negative behavior which generates repelling buying behavior. People scoff at, spurns out and reject products.

If external stimuli enter our brain without emotional pigment, it will wisp out sooner or later. This is why great marketers design advertisements, give colour to the brand words, symbols with an ingredient of emotional content just to grab the fleeting attention of the people. They also create imagined assumptions with the application of emotional words like "safest car in the

world” and “we cherish your friendship”. These emotionally appealing phrases or words may not make the customers loyal in one go but it definitely set the stage for loyalty.

However, the implication of being loyal customers is that it makes customers victims of self-serving bias. It makes the consumer prejudiced and self centered. Consumers start to assume what feels right is right. This leads a consumer to make snap judgment about the product to which it had shared his feeling and does not therefore think about better alternatives. Subsequently he has exaggerated feelings for the product. This led him to define and see products through magnifying lenses. So when he stroll through the aisle and see his favourite product sitting and surrounded by many products in a shelf, His eye sparkles and feeling dilates, his sight instantly captures his favorite product without any iota of distraction. Nothing sort of alternatives can take away his laser sharp lens.

Exaggerated feeling of loyalty exudes for the Apple mobile stem out not from the logical faculty. Neither is it necessarily the expression of the high quality product. Infact in one study, it has been found out that the HP and Dell computers contain more application and speedier appliances yet these products pale into insignificance before the emotionally drenched silvery logo – a bite taken out of an apple. This clearly shows that the loyalty factors are based on unfair game or even little bit bigoted. The feeling issue of loyalty does not allow a customers to see and rethink on the quality issue of the another product

Cognitive Laziness

Another aspect which boosts up loyalty factors is cognitive laziness. Some psychologists point to the fact that our brain is mental miser. Our brain has limited resources and much of its actions go to help us how to survive and thrive. Primary reason people go to Wal-Mart not just to purchase groceries but they fundamentally go for survival reason and its slogan amply infer it

“Wal-Mart has built their brand on the promise of everyday low prices. Their tagline “Save Money. Live Better” (Miller, 2017, p. 53)

The above tagline vividly communicates saving value and helps the consumer to strengthen their future survivability. People's sight easily catches up with any idea or product which helps them to survive. And what more the word itself is a very emotive one which helped Wal-Mart to keep turning its casual customers into loyal one.

Strength of emotionally drenched tagline with vivid connotation of survivability carries a potent force to unclog the resisted door of the mind for life saving cues. This life saving idea and cues like the logo and brand name easily slither into the mental groove, settle into the memory lane smoothly and slowly and gradually fertilize strong seeds of belief and trust. Moreover, marketers should understand that the rhythm of our mind is slow. Emotion has its own agenda. The noble aspect of the product may work as pull factors but most of the people scorn at accepting new product as people have the ingrained tendency to select and retain those products which support their believe system and their belief system is the descriptive summation which is the ensuing result of their past experience and knowledge about something . Their past experience, therefore disposes them to live in a world of their cherished thoughts. They become pusillanimous for the noble products. This is another reason why many products fail before capturing the aspiration of the market.

People choose that product that they are comfit able with. The familiar product is riskless and also congruent to our natural tendency of risk averting nature. We favour the conviction over the discomfort of doubt. As going against our cherished idea is tantamount to going against our identity.

When we turn loyal to a product our brain soaks up with the emotional association. This smudges our logical faculty and our dependency on products get intensified. The product saves us and therefore we save the product. Mutual dependency factors also stoke our narcissism for

the product. How come the product I am using can be wrong, how can my decision over purchasing and using the product is bogus? The idea of switching over other products directly puts their fragile ego on the edge. Their loyalty for a product is not defense or allegiance to the product. The mode of defensive mechanism is instead an attempt to defend their divine idea and opinion. The Harley Davidson tattoo on the arm of some loyal customers does not broadcast his emotion and sense of commitment for the product; it is rather a sheer demonstration of personal belief and lifestyle-The strong emotional convergence of what the company believes and what customers believe.

People are more interested therefore, in serving their preexisting belief and opinion. Every customer in this case is primarily a selfish creature. They want to be served on their own terms and conditions. Self serving bias therefore set in. Every great marketer understands the subtlety of it. One of the common self serving biases are surviving and thriving. So they build in their products the element of survival and then thriving factors.

But in the extreme form, the self serving bias which is the byproduct of emotionality can become outright delusional, causing people to believe in reality that is not there, smudging memory and exaggerating facts. People sometimes transcend the boundary of loyalty and cry at the sight of experiencing the new launch of Apple mobile .The delusional aspect about a product is higher when the brain is not intellectual. Under this condition the feeling part of the brain rises up like mutinous soldiers to override respondents' rational preference for the product to which she is loyal.

Every purchase is not an issue of information. People don't buy because the product offers better value or because of low prices. Loyal purchasing behaviour is an emotional issue. There are equations for the product which fulfill the functional needs of the consumer but there are no equations for feeling a loyal customer. And something which is analyzed is susceptible to acceptance and that which is not are subject to be rejected.

Emotionality smudges our analytical power. The products which share the baggage of emotion always win as it keeps the evaluative proposition of the customer at bay. The emotionally crowned product settles up in the limbic brain and becomes belief. The outrageous outcry of the consumers in America against the withdrawal of the old Coke is the fitting example of how loyal customers display their outpouring emotion for a simple and mundane product like Coke. When Coke faced a threat from Pepsi, it conducted widespread test offering to the people Pepsi sweet cola and Coke cola without showing the logo, in a naked glass, majority of the people tilted their preferences for sweet Pepsi. But in the second test, when the test was conducted with both Pepsi and Coke, people's preferences took a reverse gear this time and seventy five percent of the people expressed their preference for Coke. The test has been concluded that attachment of the people with Coke is not because of the taste of the beverage but because of their emotional attachment.

CONCLUSION

Loyalty is the battle which is fought inside the brain. Smart Marketers understand the subtleties and benefits of understanding the human brain and how human brains have direct bearing in the making of loyal customers. Building loyal customers are not a one day affair. It requires patience and wider understanding of human dimension. Great companies understand the mechanism of building loyal customer. They understand that loyalty lies in generating oxytocin and serotonin which get its secretion through the unabated marketing insight.

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BRAND LOVE AND BRAND EVANGELISM: THE MEDIATING ROLE OF ATTITUDINAL BRAND LOYALTY

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ABSTRACT

In recent years, consumer–brand relationships have gone through a great deal of change, with emotions becoming an important factor in determining the success of a brand. In a country like India, consumers are showing a willingness to purchase sustainable products due to their increased awareness of consumption consequences. Marketers are also interested in engaging with those customers and retaining them through different strategies. The present study contributes to the existing body of literature by assessing the mediating role of attitudinal brand loyalty in shaping evangelists for a particular brand. Thus, the study proposes to examine the mediation effect of attitudinal brand loyalty on the relationship between brand love and brand evangelism in the sustainable cosmetics industry. For this purpose, the data was collected from Indian consumers who have recently purchased sustainable cosmetics and research analysis was carried out through the use of SPSS 26 and AMOS 24 software. The results of the study reveal a significant mediating role of attitudinal brand loyalty between brand love and brand evangelism. Also, brand love has a positive influence over attitudinal brand loyalty and brand evangelism respectively. Thus, both direct and indirect effect is observed in the proposed model. The findings of the present study have significant implications for marketers. In this competitive market, marketers should realise that retaining loyal customers will help them in achieving high performance and success.

Keywords: Brand Love, Brand Evangelism, Attitudinal Brand Loyalty, Sustainable Cosmetics

INTRODUCTION

The awareness among consumers regarding the environmental damage caused due to their consumption patterns has increased (Kumar et al., 2018). Thus, consumers are purchasing sustainable products to contribute to their environment and aim to solve the issue of overuse of natural resources. However, marketers are also mindful to produce sustainable products that would cater needs of consumers who support sustainability.

In today's competitive market, only creating sustainable goods are not ample to satisfy consumers. It is important to understand that the emotional aspects are likely to bring them to the final purchase decision. Brand love is an important construct in the literature related to marketing as it has been proven that consumers can also develop a love for the brands and feel emotionally connected to them (Carroll & Ahuvia, 2006). Previous literature has argued that brand loyalty is explained in terms of attitudinal and behavioral loyalty (Chaudhuri and Holbrook, 2001). The present study has focused on the attitudinal aspect of brand loyalty to understand the level of commitment an individual exhibit towards the brand they love.

As the research studies done in the past, consumers who exhibit brand love towards a particular brand show more commitment towards the same brand. They have a positive impact on the performance of the brand in terms of positive word of mouth, and readiness to pay higher prices (Albert and Merunka, 2013). Thus, we are aiming to assess the impact of brand love on brand evangelism. Additionally, we are focused on investigating the mediating role of attitudinal brand loyalty in the relationship between brand love and brand evangelism in the context of the sustainable cosmetics industry.

REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

Brand Love and Attitudinal Brand Loyalty

A satisfied consumer's love of a particular brand is determined by their passion and emotional attachment to it (Carroll & Ahuvia, 2006). Rossiter (2012) offered a unique perspective on brand love, arguing the need to differentiate brand love from love toward individuals. A consumer may demonstrate loyalty to a store, brand, or product (Uncles et al., 2003). In marketing literature, brand loyalty has been described as a two-dimensional construct namely attitudinal loyalty which is explained as a level of commitment an individual express for a brand (Chaudhuri and Holbrook, 2001; Jacoby and Chestnut, 1978), and behavioural loyalty is defined as readiness to rebuy the same brand (Chaudhuri and Holbrook, 2001; Kahn et al., 1986).

In this study, we are focusing on the attitudinal dimension of brand loyalty. Since we are interested in the emotional aspects of a consumer, this focus is pertinent. Therefore, we are assessing the attitudinal commitment of a consumer towards the brand he loves. Previous research has supported the positive impact of brand love on brand loyalty (Carroll and Ahuvia 2006; Batra et. al., 2012). Concerning wine industry, brand loyalty was found as an outcome of brand love (Drennan et. al., 2015). Thus, the present study posits that brand love has an impact on attitudinal brand loyalty:

H1: Brand love has a positive influence on attitudinal brand loyalty

Brand Love and Brand Evangelism

When a brand is viewed as an individual, customers can love it as they would a person (Ranjbarian and Barari, 2009). Fournier (1998) acknowledges that love is an important element in creating long-term relationships between consumers and brands. Brand evangelism is defined as behavior and statement that actively support a brand, such as purchasing, referring, and disparaging competitors to promote a focal brand (Becerra and Badrinarayanan, 2013). According to the literature, brand love is positively related to psychological factors that influence brand performance such as word-of-mouth (Albert and Merunka, 2013; Batra et al., 2012), willingness to pay a price premium (Albert and Merunka, 2013; Bauer et al., 2009), resistance to negative information about the brand (Batra et al., 2012).

Relational capital, cognitive capital, and structural capital have positive correlations with brand love, ultimately leading to brand evangelism, positive brand referral, and positive brand feedback (Lee and Hsieh, 2016). Based on the above arguments, this study proposes that consumers who manifest brand love are more likely to engage in brand evangelism:

H2: Brand love has a positive influence on brand evangelism

Mediating Effect of Attitudinal Brand Loyalty between Brand Love and Brand Evangelism

It has been proven in the previous literature that brand love positively enhances brand loyalty (Batra et al., 2012; Bergkvist and Bech-Larsen, 2010; Carroll and Ahuvia, 2006). Attitudinal brand loyalty is shown as a related consequence of brand love in the study by (Becerra and Badrinarayanan, 2013). It is asserted that the consumer experiencing brand love is likely to show commitment and a positive attitude towards that brand that will ultimately lead to attitudinal loyalty.

Brand evangelists are unpaid spokespersons working to represent the brand, and they may even preach about the same to get others to use it (Doss, 2014). Customers' attitudinal loyalty motivates them to recommend, advocate, stay loyal to their brands, and ignore other brands' offers (Dick & Basu, 1994; Jensen, 2011; Zeithaml, Berry, & Parasuraman, 1996). It is believed that consumer with a high level of brand loyalty is likely to spread positive word of mouth (Fetscherin 2014) and less likely to switch brands (Thompson and Sinha, 2008). Thus, based on

previous literature, the study asserts that attitudinal brand loyalty is likely to have a mediating impact on the relationship between brand love and brand evangelism:

H3: Attitudinal brand loyalty mediates the relationship between brand love and brand evangelism

METHODOLOGY

Based on the review of the literature, the present study has focused to explain the mediation effect of attitudinal brand loyalty on the relationship between brand love and brand evangelism. This study is focused to understand this relationship in the context of the sustainable cosmetic industry. Figure 1 illustrates a three-path serial mediation model. Using Hayes PROCESS macro, the mediation effect is evaluated in the research model.

This study has used Indian consumers who had purchased and utilized sustainable cosmetic products as its units of analysis. Analysis of the theoretical model was conducted using structural equation modeling to test the hypotheses. Based on recognized scales from the literature, a questionnaire was developed using a five-point Likert scale. Minor modifications were made to the questionnaire as per the requirement of the study.

Total of 180 usable responses were collected through the questionnaire out of which there were 21 per cent males and 79 per cent females. The majority of the respondents belong to the age group of 20-29 years (i.e., 52 per cent) and 39 per cent of the respondents were graduates.

To check that the data is free from biasness, Herman's single factor was applied for calculating common method bias. The variance explained is 40.964 per cent, which is lower than Harman's (1976) acceptable limit of 50 per cent, meaning that data are not biased.

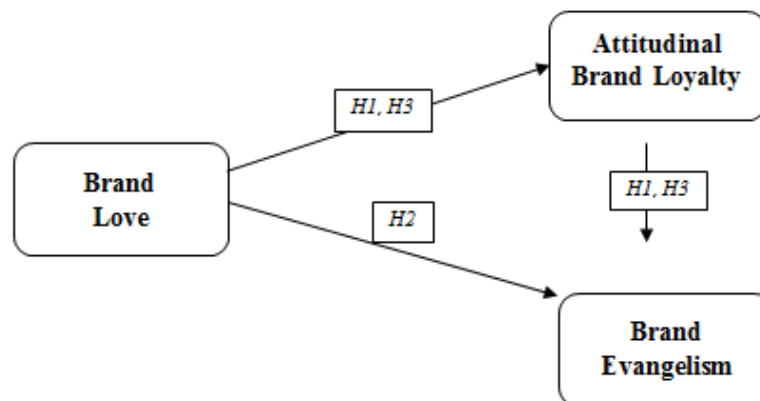


Figure 1: Research Model

Table 1. Demographic profile of the respondents

Descriptors	(%)
Gender	
Male	21
Female	79
Age Group	
20-29 years	52
30-39 years	15
40-49 years	19
50-59 years	14

Educational Qualification	
High school or less	3
Graduation	39
Post-Graduation	27
Doctorate	31
Monthly Individual Income	
Less than INR 50,000	47
INR 50,001 – 1,50,000	34
INR 1,50,001- 2,00,000	6
INR 2,00,000 & above	13

ANALYSIS AND RESULTS

The collected data was analysed using validated tools and procedures. EFA (exploratory factor analysis) was applied using SPSS 26 and is followed by CFA (confirmatory factor analysis) employed with AMOS version 24.

Model assessment: KMO values at 0.797 which is greater than the prescribed limit of 0.60 (Kaiser and Rice, 1974) and Bartlett's test of sphericity values at 0.000, which is lower than 0.05, representing that the factors have zero correlation between them. As shown in Table 2, these constructs have composite reliability statistics higher than the cut-off limit of 0.70 (Bagozzi and Yi, 1988; Fornell and Larcker, 1981). For all scales, Cronbach's reliabilities (α) exceeded the threshold of 0.60. The values of composite reliabilities (CR) and average variance explained (AVE) were greater than the acceptable limits of 0.7 and 0.5, respectively. Since composite reliability values are higher than AVE values, the convergent validity of the model is confirmed. (Hair et al; 2012).

The model confirms the discriminant validity of the constructs as the diagonal value (square root of average variance explained) of brand love (BL) = 0.791, brand evangelism (BE) = 0.790 and attitudinal brand loyalty (ABL) = 0.778 are higher than non-diagonal values (correlation between construct) (Kesharwani and Tiwari, 2011). (See Table 2)

As shown in Table 3, the model fit indices are provided for both the structural model and the measurement model. Key model statistics shows the good fit of the model such as CMIN (Σ^2) = 77.914, Degree of freedom (df) = 41, CMIN/df (Σ^2 /df) = 1.90, goodness-of-fit indices (GFI = 0.978, NFI = 0.924, TLI = 0.949, CFI = 0.962) and badness of fit measurement indices (RMR = 0.052, RMESA = 0.071, ECVI = 0.838). According to Byrne (2013), the goodness-of-fit measurement indices confirm that the measurement model is unidimensional, while badness-of-fit measurement indices show the discrepancy. The necessary requirements and acceptable limits are met by all the fit indices. Thus, it is indicative of the model fit.

Hypotheses testing: An approach described by Hayes (2013) was applied to test the hypotheses of the prescribed model. The mediating impact of attitudinal brand loyalty on the relationship between brand love and brand evangelism was assessed through Model 4 of the PROCESS plug-in for SPSS created by Hayes (2013). Table 4 shows that the effect of brand love on brand evangelism (SE = 0.0805, CI = 0.1254, 0.4432) is significant. The indirect effect of brand love on brand evangelism through attitudinal brand loyalty (SE = 0.0444, CI = 0.0142, 0.1858) is also significant.

The results of the study show a significant positive influence of brand love on attitudinal brand loyalty and brand evangelism respectively. Thus, H1 and H2 are supported. The results also confirm a significant mediating role of attitudinal brand loyalty between brand love and brand evangelism. Therefore, H3 is accepted. This model also confirms the presence of partial mediation since the direct & indirect impact of brand love is significant on brand evangelism.

Table 2: Pairwise construct comparison measurement index (discriminant validity)									
Constructs	Mean	SD	α	CR	AVE	MSV	BL	BE	ABL
BL	2.9714	0.55178	0.865	0.868	0.626	0.204	0.791	-	-
ABL	2.9586	0.54576	0.829	0.832	0.624	0.204	0.451	0.79	-
BE	3.6537	0.55922	0.860	0.858	0.606	0.117	0.342	0.294	0.778

Table 3: Model fit indices for the measurement model			
S. No.	Model Fit	Cut-off Criteria	Model Statistics
1	CMIN		77.914
2	Df		41
3	CMIN/Df	≤ 4	1.9
4	GFI	≥ 9	0.978
5	NFI	≥ 9	0.924
6	TLI	≥ 9	0.949
7	CFI	≥ 9	0.962
8	RMR	< 0.1	0.052
9	RMSEA	≤ 0.8	0.071
10	ECVI	smaller the better	0.838

Table 4: Hypothesis Results								
Hypothesised relationship					Effect	SE	LLCI	ULCI
Direct Effect								
BL	→	BE			0.2843	0.0805	0.1254	0.4432
BL	→	ABL			0.5020	0.0639	0.3759	0.6280
Indirect Effect								
BL	→	ABL	→	BE	0.9890	0.0444	0.0142	0.1858
Total effect					0.3832	0.0703	0.2444	0.5220

CONCLUSION

This research study aims to explain the mediation effect of attitudinal brand loyalty on the relationship between brand love and brand evangelism among Indian consumers who are buying sustainable cosmetic products. The topic has not been researched in the previous literature. This study concludes that there is a significant positive influence of brand love on attitudinal brand loyalty. Also, brand love is found to have a significant positive impact on brand evangelism. Finally, attitudinal brand loyalty mediates the relationship between brand love and brand evangelism in the sustainable cosmetic industry. Thus, it can be concluded that consumers' love for a brand is likely to contribute to their loyalty towards the same brand as an emotional connection could be developed which further leads to evangelistic behavior.

The present study also confirms that there is a partial mediation impact of attitudinal brand loyalty on the relationship between brand and brand evangelism as both direct and indirect impacts are significant.

LIMITATIONS, SCOPE FOR FUTURE AND IMPLICATIONS

Although this study contributes theoretically, it has some limitations in terms of generalizability. The sample is collected only from respondents who belong to India. Thus, future researchers may collect data from different countries to improve the generalizability of the results and findings. They may also do a cross-country comparison for the same product category or may choose a different product category altogether. Also, this study has examined the attitudinal component of brand loyalty, behavioral component is also of great value to future researchers. Further studies can assess the mediating impact of behavioral brand loyalty on the

same relationship. Moreover, the relationship between brand love and brand evangelism can be explored by incorporating moderating variables such as age, gender and income levels.

This paper contributes to the knowledge of consumer brand relationships as it supports the view that brand love is likely to influence brand evangelism via attitudinal brand loyalty. Additionally, the study shows that a feeling of love towards a brand allows a consumer to display their attitudinal loyalty towards the same brand. The managers should also focus on creating marketing programs for consumers who are already loyal and express their love towards the brand. This will help them to retain those consumers, thus the same set of consumers will show evangelistic behavior through positive feedback and brand referrals.

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BUYING BEHAVIOUR OF CUSTOMERS TOWARDS ONLINE SHOPPING - APPLICATION OF TECHNOLOGY ACCEPTANCE MODEL

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ABSTRACT

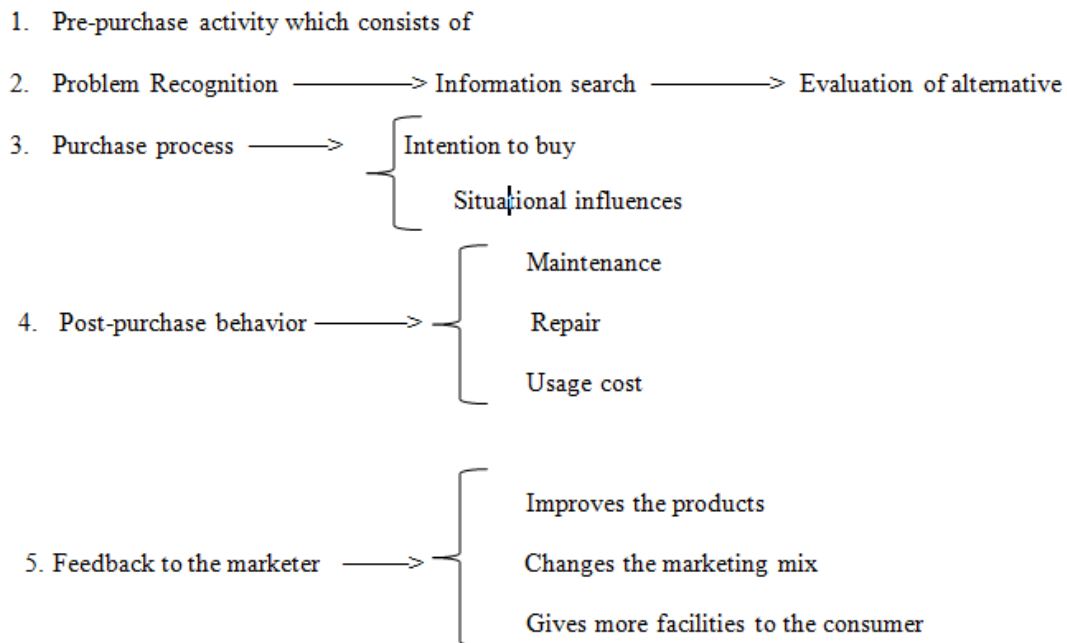
In recent time, the number of online consumers is increasing dramatically and they are spending a good amount of time on online shopping. The people are become more familiar with the online platform and their behaviour is significantly changing over the last couple of decades. The aim of the present study is to examine the behavioural pattern of the consumers and identify the factors that influencing their online shopping behaviour in present time. A quantitative research method used with a sample of 544. A structured self-administered research instrument is employed to predict the behavioural pattern of the online consumers through technology acceptance model. The result reveals that there are four types of consumers whose behaviour are significantly differently from each other. In addition, result also depicts that perceived usefulness and perceived ease of use have sound influence on consumer attitude which ultimately leads to use of online platform to buy their necessities. The result of the study is useful for the online marketers to understand the behavioural pattern in order to encourage them to buy products and services through online platform.

Keywords: Online, Behaviour, quantitative research, attitude, Perceived ease of use, technology

INTRODUCTION

People imagine that online shopping can help daily life. In the past, people avoided shopping online as it was linked to trust in the e-marketplace. Nowadays, with an improved digital system, more manageable payments, and broader access, online shopping activities are commonplace in society. Online shopping is increasingly popular in Indonesia because of many discounts and benefits from emarketplace. The origin of online shopping is linked with the invention of video text being invented in 1979 by Micheal Aldrich in the UK. The term e-commerce was originally generated to explain the process of execution of business activities taking place electronically by making use of technologies like Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). EDI and EFT are considered as the backbone of e-commerce. These technologies only, made it possible to exchange information and execute transactions like the placement of purchase orders and generation of invoices electronically. 1980 to 1990 was the period of the growth of e-commerce industry around the world. This growth took place because of the invention of ATM's and introduction of debit cards. During this period the major players which led to the growth of e-commerce include Boston Computer Exchange, Minitel and Electronic Mall. All these were electronic marketplace launched by different countries. In the year 1990 biggest achievement till date of e-commerce took place. In this year Tim Berners-Lee introduced the first ever web browser known as Introduction to Online Buying Behaviour World Wide Web. In the very next year, it started using it for commercial benefits. The consumer behaviour method is consisting of 5 steps, that are want recognition, data search, evaluations of alternatives, purchase and post-purchase behaviour. These steps will be a guide for marketers to grasp and communicate effectively to customers. The roles of customer satisfaction are achieving business excellence.

A consumer goes through numerous phases before purchasing a product or service.



Source: Philip Kotler

Need is the most important factor leading to purchase of products and services. The need is in fact the catalyst that leads to individuals' purchasing decision making. A person who buys a cold drink or a bottle of mineral water identifies his/her need for thirst. But in such cases, steps such as searching for information and evaluating alternatives are generally missing.

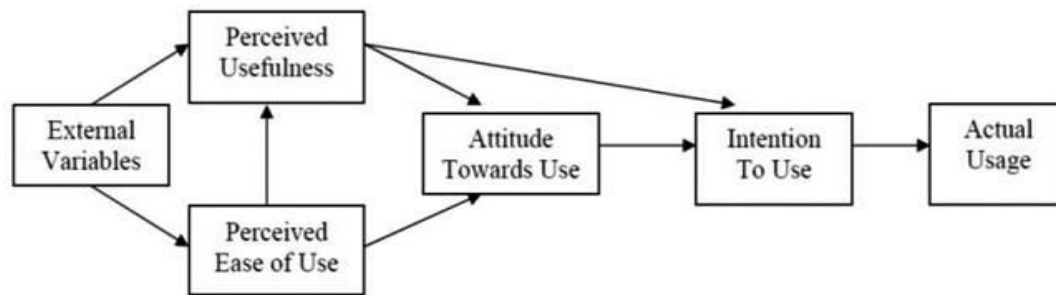
This study examines one of the e-marketplaces in Indonesia with a complete inventory of goods. The large selection of goods is due to the large number of sellers who sell goods on this e-marketplace. A wide variety of products and prices will satisfy potential buyers. Prospective buyers will have many options. Even so, the quality of the goods also varies. On the e-marketplace, we can find some high-quality goods, mediocre goods, and replicas of the famous brand. The value of perceived information, perceived entertainment value, and perceived credibility have an effect on the perceived value of online reviews. This research objective tries to examine the TAM model related to the phenomena that occur in e-marketplaces in Indonesia. The TAM model recognizes the variable ease and usefulness of the technology. This research will examine aspects of the ease and usefulness of the website and public trust in the e-marketplace, with the research object one of Indonesia's biggest e-marketplaces

REVIEW OF LITERATURE AND HYPOTHESIS DEVELOPMENT

Looking at previous studies, the model used to assess a person's attitude towards technology is the TAM model. We develop a research model based on a modified Technology Acceptance Model theory with trust variables. This study will evaluate consumer attitudes towards marketplaces in India.

Online Purchasing Intention and Technology Acceptance Model

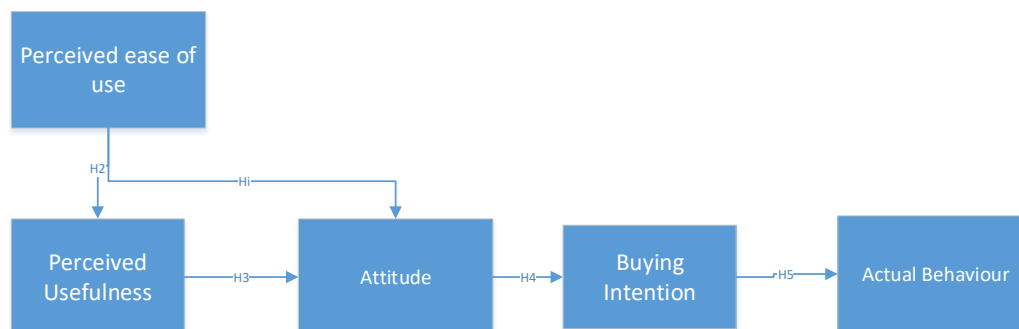
The technology acceptance model (TAM) is an information systems theory that models how users come to accept and use a technology.



Source: Technology Acceptance Model (TAM) (Davis, Bogozzi and Warshaw, 1989)

In 1989, Davis used TAM to explain computer usage behaviour as shown in Figure. The goal of Davis' (1989) TAM is to explain the general determinants of computer acceptance that lead to explaining users' behaviour across a broad range of end-user computing technologies and user populations. The basic TAM model included and tested two specific beliefs: Perceived Usefulness (PU) and Perceived Ease of Use (PEU). Perceived Usefulness is defined as the potential user's subjective likelihood that the use of a certain system (e.g: single platform E-payment System) will improve his/her action and Perceived Ease of Use refers to the degree to which the potential user expects the target system to be effortless (Davis, 1989). The belief of the person towards a system may be influenced by other factors referred to as external variables in TAM.

RESEARCH MODEL



Conceptual Framework of the study

Source: Technology Acceptance Model (TAM) (Davis, Bogozzi and Warshaw, 1989)

Perceived ease-of-use (PEOU) – Davis defined this as "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989). If the technology is easy to use, then the barriers conquered. If it's not easy to use and the interface is complicated, no one has a positive attitude towards it.

H1: Perceived usefulness has a positive effect on attitude toward online shopping

Perceived usefulness (PU) – This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance their job performance". It means whether or not someone perceives that technology to be useful for what they want to do.

H2: Perceived ease of use has positive effect on attitude toward online shopping

H3: Perceived usefulness has positive effect on perceived ease of use toward online shopping.

H4: Attitude has a positive effect on buying intention toward online shopping.

H5: Buying Intention has a positive relation towards Actual buying

Method

The data used in this study are primary data collected directly through a survey method with a questionnaire. The data concerned with the characteristics of the respondents and the variables studied. Respondents used in this study are those who make purchases through the largest e-marketplace in West Bengal. The number of samples used was 600 respondents in West Bengal. The sampling technique used was purposive sampling with the criteria that respondents had shopping online.

Research Design

The study has been exploratory in nature. The study is based on both primary and secondary data. Sometimes an individual wants to know something about a group of people. Exploratory research is distinct as research used to investigate a problem which is not clearly defined. It is conducted to have a better understanding of the existing problem, but will not provide conclusive results

Population of the Study

Since my study considers the Junglemahal area of the State West Bengal, here the population size is total respondents of three districts i.e., Purulia, Bankura and Paschim-Medinipur, as these three districts are called as Junglemahal.

Sampling Technique:

Three districts, Purulia, Bankura and Paschim Medinipur (Junglemahals) are under West Bengal state has been taken consideration for the study. From each district blocks are arranged in terms of net shown area. Many studies have found that there is no significance difference in buying online product between village area and town area. For our study purpose this study uses purposive sampling, that's why we choose municipal area and gram panchayet area from Block.

Sample Size

Since the study consider 50 (fifty) respondents from each Gram Panchayet and municipal area therefore a total of 100 (Hundred) respondents the study get from each block. From each district the study gets 200 (two Hundred) respondents from Purulia District, Bankura District and also from Paschim-Medinipur District. Therefore, a total of 600 (Six Hundred) respondents are consider for the study purpose from three districts. Respondents will be online buyers.

Sample Size Determination

The focused groups for this study are consumers who are using different online platform to buy their necessities. In this study the sample size is determined by using Taro Yamane's formula. The population size for this study is estimated to be 1,00,000 people. Therefore, at 95 percent confidence level with 0.5 degree of variability along with ± 5 percent level of precision, the sample size will be 398 people (Taro Yamane, 1964).

Research Instrument

Data was collected through the use of a specified measuring instrument. This instrument was a completely self-developed and standardized questionnaire that comprised of two sections. The first section was aimed at collection of general information i.e., the socio-demographic prolife of the respondent, whereas the second corresponds to the major determinants of the consumer behaviour towards online buying. In order to choose the appropriate questions, a two-stage approach was followed. First of all, researchers referred to several previous empirical researches undertaken respectively by: Ajzen & Fishbein's, 1980; Cook et al., 2000; Daly et al, 2003; Rinner&Heppleston, 2006; Gopi & Ramayah, 2007; Ramayah et al., 2008; Numraktrakul et al., 2012; Al-Nahdi et al, 2015; Pandey and Srivastava, 2016.

Finally, 56 items were used to identify the main determinants that influence consumer behaviour towards online buying. A five-point Likert scale ranging from “1= strongly dissatisfied” to “5= strongly satisfied” was employed and respondents were appealed to tick the corresponding responses for each variable indicator.

RESULT AND ANALYSIS

Researchers found 400 valid questionnaires from a total of 430 questionnaires. Most of the respondents were male, with a percentage of 89% of the total respondents. Meanwhile, based on age, the average respondent is dominated by the younger generation with an age range of 21-25. Most respondents have an income of fewer than one million rupiahs. To test the instrument using validity and reliability tests. All question items for each variable x and y are declared valid - the calculated R-value for each question item is positive and is more significant than 0.361. Cronbach's alpha value above 0.6 indicates that the research instrument is reliable. These results indicate that the research instrument is valid and reliable.

In the next part of the analysis, researcher tested the buyer's intention towards online buying. The result of the path analysis is presented in table

Table: Results of hypotheses' testing corresponding to the TAM

Hypothesis Paths	Path Coefficients (β)	p value	Remarks
PEU $\rightarrow$ AT	0.570	0.01	Supported
PU $\rightarrow$ AT	0.218	0.01	Supported
PEU $\rightarrow$ PU	0.694	0.01	Supported
AT $\rightarrow$ BI	0.632	0.01	Supported
BI $\rightarrow$ AB	0.865	0.01	Supported

Perceived ease of use has a positive and significant effect on shopping attitude with evidence of a positive regression coefficient of 0.570 and a significance and P value is 0.01. Perceived usefulness has a positive and significant effect on shopping attitude with evidence of a positive regression coefficient value of 0.218 and a significance of less than 0.05. Perceived Ease of Use has a positive and significant effect on shopping Perceived Usefulness with evidence of a positive regression coefficient of 0.694 and a significance P Value is 0.01. Attitude has a positive effect on Buying Intention Path coefficient is 0.632 and P value is 0.01 and Buying Intention has a positive relation with Actual Buying beta value is 0.865 and P value is 0.01.

CONCLUSION

Recall the purpose of this paper was to explore consumer preferences for Web-based product information display across browse and search shopping activities. This research also aims to find out the key factors that influence online buying behaviour of consumers and to identify the determinants of online purchase intention among customers analysis.

In this study the researcher tries to identified the factors that influences that buying intentions of consumers towards online buying behaviour and in the first analysis the researcher have identified the attitude, perceived behavioural control and subjective norms have significant influence on the buying intention. There is a significant relation between attitude and buying intention. The beta value between them is 0.632 and P value is 0.01. Also, there is a significant relation between perceived ease of use with buying intention and shows beta value 0.570, P value is 0.01. The relation between Perceived usefulness and attitude is also significant and where beta value is 0.218, p value is 0.01. The relation between Perceived usefulness and Perceived ease of use is also significant where beta value is 0.694 and P value is 0.01. Finally, there is a significant relation between buying intention and actual buying in which beta value is 0.864, p value is 0.01. In the next part, researcher also tested the buyer's intention towards online buying. There is a significant relation between perceived ease of use with attitude, perceived usefulness with attitude, perceived ease of use with perceived usefulness, perceived

usefulness with buying intention and attitude with buying intention. In the final part of the analysis researcher used the combining model to investigate the buying behaviour of the consumers towards the online buying. The study concludes with the obtained results of online buying behavior scenario. This research also has some ideas to substantiate itself as document for the public domain and useful for the further study regarding online buying behavior.

IMPLICATION OF THE STUDY

The implication of this study is that this study tried to find out some major factors which has a significant influence over the online buying behaviour. By using a particular methodology this study elaborates that consumer trust, perceived risk, behavioural control, attitude, perceived use fullness, ease of use has strong impacts on their purchasing decisions. This study gives a strong idea to the researcher regarding the study of online buying behaviour. Consumer's trust, privacy concerns, security concerns are the major factors for using internet for shopping, the trust on websites influence to the purchasing decisions of any consumer. Based on the studies' results that consumer were worried and unsure about delivery of their orders; online retailers should provide the insurance for shoppers that ordered items and make sure that the products will definitely be delivered to them.

FUTURE AVENUES OF THE STUDY

Online selling and purchasing offer innumerable benefits to both seller and buyers, and these advantages are also the reasons for the rising scope of online buying.

In this research six factors have only been tested on online shopping behaviour. Researchers can examine other factors affecting on online shopping behaviour with extensive researches.

By extending this study to other countries, we can reach to better results and understanding about online shopping behaviour of people.

We used only some online stores for our statistical society. By assessing better sites like Amazon.com we can reach to better and more reliable society for research.

Including cultural factors in model could show better dimension of online shoppers.

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COMPARATIVE STUDY OF SELECTED JAN AUSHADHI MEDICINES WITH OTHER BRANDED MEDICINES

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ABSTRACT

The government of India has launched Pradhan Mantri Bhartiya Jan Aushadhi Pariyojana to help specially poor people to lessen the burden of their medical expenditure. Due to increasing medical expenses, specially the poor people suffer the most and unable to get proper medical treatment. This government initiative has been proved to be a boon for the poor people and now poor people can also bear medical expenses because medicines available at Jan Aushadhi stores are very cheap in compare to branded medicines. This study compare the prices of generic medicines available at jan Aushadhi Stores and same salt available in different brands.

INTRODUCTION

Pradhan mantra Bhartiya Jan Aushadhi Pariyojana was announced by our Prime Minister Narendra Modi on 1st July 2015. This scheme provides cheap generic medicine to people without compromising in quality of medicines. Initially people were not aware about the scheme so they were unable to get benefit from it. But now, people are getting more aware about the scheme day by day because of the lots if efforts done by government of India.

In India most of the people buy branded medicines. Indian branded medicine sector is very huge. It is not easy to compete with the brands because branded medicines have become a crucial part of our life. But it is very painful for the poor people to handle the cost of medical expenses so the Government has initiated this scheme which provides cheap generic medicines to the people without compromising the quality of it.

The major players in the Indian pharmaceutical market are Sun Pharma, Dr. Reddy's, Lupin, Cipla, Aurobindo, Candila. Glenmark, Torrent Pharma, Alkem Lab, , I, Glaxo SmithKline, Abbott India, Biocon, , Sanofi India, Wockhardt, Pfizer, Dr Lal Path Lab, Merck, , Novartis India and Eris Life.

Difference between Generic and Branded Medicines

When we talk about a branded medicine, it is directly related to some company. The company spends a lot of money in Research and Development of that drug so it gets the medicine patented, this is the cause why branded medicines are costly in comparison of generic drugs. On the other hands generic drugs do not support any brand name , they are just available by the salt name that's why generic medicines are much cheaper than the branded ones.

LITERATURE REVIEW

- **Archana sawshilya (2020):** Prime Minister Jan Aushadhi Pariyojana: Challenges in Effective Implementation. This atudy was conducted by the researcher to understand the obstacles and hurdles faced by the authorities to successfully implement the scheme. Lack of awareness, corruption in govt officials, limited coverage and high competition with the brands were the main reasons which create hurdles in successfully implement the scheme.
- **Kanchan Mukherjee (2017):** A Cost analysis of the Jan Aushadhi Scheme in India. In the above article a comparison is done between generic and branded medicines to understand whether generic medicines available at Jan Aushadhi stores are cheaper or not in comparison to branded medicines. The result showed that most of the generic medicines available at jan aushadhi stores are cheaper than branded ones but in some cases some cheaper medicines are provided by some brands also.

- **Meenu Pichholiya, Abhijit Basu, Arvind kumar Yadav, Nitin Kothari & Jameela Tahashildar (2015):** An Observational Comparative study of cost between branded medicines and generic medicines: In this study a comparative study was done to compare the cost of generic drugs and branded drugs. The outcome was very surprising as 26 generic medicines out of 50 selected medicines were costlier than their branded versions.

Objective of study

- To compare the price of generic medicine available at Jan Aushadhi stores with other branded medicines
- To show percentage difference of price of generic medicine and branded medicines

Comparison of cost of selected Jan Aushadhi Generic Medicines and Branded medicines

1. Telemistron 40mg

This medicine is used to treat “blood pressure”

The price of this medicine at Jan Aushadhi store is Rs. 11

The price of this salt available in different brand is as follows:

Medicine Name	Brand	Price(Rs)	Per tablet price(Rs)	Percentage costlier than Jan Aushadhi Medicine
Jan Aushadhi medicine		11(for 10 tablets)	1.1	
1.Telma 40	Glenmark	241(for 30 tablets)	8.1983	645.3% costlier
2.Tazlon 40	USV	80(for 10 tablets)	8.198	645.27% costlier
3.telzy 40	Alembic Pharmaceuticals Ltd	122.9 (for 15 tablets)	8.1933	644.84% costlier
4.Eritel 40	Eris Lifesciences Ltd	122.89(for 15 tablets)	8.19266	644.79% costlier
5.Telista 40	Lupin Ltd	122.47(for 15 tablets)	8.16466	642.24% costlier
6.Telsartan 40	Dr Reddy's Laboratories	114.13(for 14 tablets)	8.152	641.09% costlier
7.Telsar 40	Torrent Pharmaceutival Ltd	110.8(for 15 tablets)	7.386	571.45% costlier
8.Telvas 40	Aristo Pharmaceuticals Pvt Ltd	88.46(for 15 tablets)	5.8973	436.11% costlier
9.Temsan 40	Emcure Pharmaceuticals Ltd	61.45(for 15 tablets)	4.096	272.36% costlier
10.Telmikind 40	Mankind Pharma	34.85(for 10 tablets)	3.485	216.81% costlier

From the above table it can be clearly seen that these different brands are far more costlier than the generic medicines available at Jan Aushadhi stores. If a person buys generic medicine instead of any of these branded medicines, he can save a lot of money and use it for other needs.

2. Glimperide 1 mg Tablets

- This medicine is used to treat sugar
- The cost of generic medicine available at jan aushadhi store is Rs 4 for 10 tablets. So the per tablet price is 0.4 paisa
- The other branded medicines available for the salt is as follows:

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than jan aushadhi medicine
Glimperide 1mg	Jan Ausahdhi	4(for 10 tablets)	0.4	
1.Amaryl 1mg	Sanofi India Ltd	133.81(for 30 tablets)	4.4603	1015.075% costlier
2.Glimer 1 mg	Abott	66.86(for 15 tablets)	4.4593	1014.825% costlier
3.Glimy 1mg	Dr. Reddy's Laboratories Ltd	62.07(for 14 tablets)	4.4335	1008.375% costlier
4.Diapride 1mg	Micro Labs Ltd	120.96(for 30 tablets)	4.032	908% costlier
5.glimisave 1mg	Eris LifeScience Ltd	60.4(for 15 tablets)	4.0267	906.67% costlier
6.Azulix 1mg	Torrent Pharmaceuticals Ltd	40.15(for 10 tablets)	4.015	903.75% costlier
7.Glador 1mg	Lupin Ltd	59.58(15 tablet)	3.972	893% costlier
8.Zoryl 1mg	Intas Pharmaceutical Ltd	48.38(for 15 tablets)	3.22	705% costlier
9.Glimestar 1 mg	Mankind Pharma Ltd	27.09(for 10 tablets)	2.709	577.25% costlier
10.Euglim 1 mg	Bayer Zydus Pharma Pvt Ltd	37.1(for 15 tablets)	2.4733	518.325% costlier

From the following result we can say that there is a huge difference between the price of this salt available in different brands and generic medicine available at jan aushadhi store. So, a person can save lot of money by purchasing this medicine from Jan AUshadhi store.

3. Vildagliptin 50 mg

- This medicine is used to control blood sugar level in type 2 diabetes.
- The cost of this salt available at jan aushadhi store is Rs. 60 for 15 tablets. So the per unit price is Rs 4.
- The comparison of cost of generic medicine available at jan aushadhi store and other branded drugs is given below.

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than jan aushadhi medicine
Jan Aushadhi		60(for 15 tablets)	4	
1.Euvilde 50 mg	Europa	104(for 10	10.4	160% costlier

	Healthcare Pvt Ltd	tablets)		
2.Vilazest	Lakshya Pharma Pvt Ltd	149(for 15 tablets)	9.93	148.25% costlier
3.Zomelis 50 mg	Eris LifeSciences Ltd	148.5(for 15 tablets)	9.9	147.5% costlier
4.Vilnip 50 mg	Lupin Ltd	148.45(for 15 tablets)	9.89	147.41% costlier
5.Vilzato 50	Elbrit LifeSciences	130(for 15 tablets)	8.67	116.67% costlier
6.Vildee	Talent India	123.75(for 15 tablets)	8.25	106.25% costlier
7.Vidamence 50 mg	Immence Life Sciences Pvt Ltd	105(for 15 tablets)	7	75% costlier
8.Viladiet	Exmo Biogenics Pvt Ltd	104(for 15 tablets)	6.93	73.25% costlier
9.Vildanat	Natco Pharma Ltd	93.8(for 15 tablets)	6.7	67.5% costlier
10.Vilact	Panacea Biotec Ltd	66(for 10 Tablets)	6.6	65% costlier

Through the above comparison table we can say that in selected brands medicine for this salt is costlier than the jan ausahdhi generic medicine and people can save their money by switching from branded medicines to generic medicine available at jan aushadhi store.

4. Cetrizine 1 mg

- This medicine is used in treatment of allergy.
- The cost of this salt available at jan aushadhi store is Rs. 5 for 10 tablets so the per unit price is 0.5 paisa.
- The comparison of jan ausahdhi generic medicine with other branded version is given below:

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than jan aushadhi medicine
Citrizine 1 mg		5(for 10 tablets)	.5	
1.Cetzine	Dr. Reddy,s Laboratories	30.66(for 10 tablets)	2.044	308.8% costlier
2.Alerid	Cipla Ltd	18.49(for 10 tablets)	1.849	269.8% costlier
3.Alday	S.H. Pharmaceuticals Ltd	18.48(for 10 tablets)	1.848	269.6% costlier
4.Allercet	Micro labs Ltd	18.48(for 10 tablets)	1.848	269.6% costlier
5.Hicet	Micro Labs Ltd	18.48(for 10 tablets)	1.848	269.6% costlier
6.CZ3	Lupin Ltd	18.4(for 10 tablets)	1.84	268% costlier
7.Cetirix	Alkem Laboratories Ltd	18.4(for 10 tablets)	1.84	268% costlier

8.Incid-L	Bayer Zydus Pharma Ltd	18.4(for 10 tablets)	1.84	268% costlier
9.Zyncet tablet	Torrent Pharmaceuticals Ltd	18.4(for 10 tablets)	1.84	268% costlier
10.zyrtec	Dr. Reddy's Laboratories	18.14(for 10 tablets)	1.814	262.8% costlier

5. Thyroxin 50 mg

- This medicine is used to treat hypothyroidism
- The cost of medicine available at Jan Aushadhi Store is Rs. 45 for 100 tablets. So the per unit price is 0.45
- The comparison of the medicine with other branded medicine is given below:

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than jan aushadhi medicine
Thyroxin 50 mg	Jan Aushadhi	45(for 100 tablets)	0.45	
1.Euthyroid	Akumentis Healthcare Ltd	104(for 4 tablets)	26	5677.77% costlier
2.Thyrox	Macleads Pharmaceuticals Ltd	121.97(for 100 tablets)	1.2197	171.04% costlier
3.thyronorm	Abott	146.24(for 120 tablets)	1.2167	170.38% costlier
4.Thyrorich	Primus Pharmaceuticals Ltd	110.04(for 120 tablets)	1.1004	144.53% costlier
5.thyrofit	Eris Lifesciences Ltd	132(for 120 tablets)	1.1	144.44% costlier
6.Lethyrox	Intas Pharmaceuticals Ltd	110.88(for 100 tablets)	1.1088	146.4% costlier
7.Thyroup	Lupin Ltd	131.99(for 120 tablets)	1.099	144.22% costlier
8.Thyromed	Eomed Chemicals Ltd	109.3(for 100 tablets)	1.093	142.89% costlier

The above comparison clearly shows there is huge difference in prices of medicines available at Jan Aushadhi stores and other branded substitutes.

6. Aspirin 75 mg

- This medicine helps to prevent blood clots in our blood vessels.
- The price of this medicine available at Jan aushadhi store is Rs. 2 for 14 tablets. So the per unit price is 0.142

- The comparison of this medicine with other branded substitutes is given below:

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than jan aushadhi medicine
Aspirin 75 mg	Jan Aushadhi	2(for 14 tablets)	0.142	% costlier
1.Dilsprin 75	Jackson Laboratories Pvt Ltd	27.6(for 10 tablets)	2.76	1843.66% costlier
2.Riyoprin 75mg	Riyadh Pharma	20(for 10 tablets)	2	1308.45% costlier
3.Aspro 75	Zeelab Pharmacy Pvt Ltd	8.5(for 10 tablets)	0.85	498.59% costlier
4.Aspeeday 75	Srinivas Gujarat Laboratories Pvt Ltd	3.81(for 10 tablets)	0.381	168.31% costlier
5.Ecosprin 75	USv Ltd	5.33(for 14 tablets)	0.3807	168.09% costlier
6.ASA 75mg	Zydus Cadila	3.7(for 10 tablets)	0.37	160.56% costlier
7.E prin 75mg	Torrent Pharma Ltd	3.72(for 14 tablets)	0.265	86.619% costlier
8.Aspidot 75 mg	Three Dots Life Science	2.43(for 10 tablets)	0.243	71.12% costlier
9.CV Sprin 75mg	Cadila Pharma Ltd	2.21(for 10 tablets)	0.221	55.63% costlier
10.Sprin 75	Alkem Laboratories Ltd	2.05(for 10 tablets)	0.205	44.36% costlier

The above comparison clearly shows difference in prices of Jan aushadhi medicine and other branded medicine.

7. Cefixime 200mg

- This medicine is an antibiotic that is used to treat bacterial infections.
- The price of the medicine available at Jan Aushadhi store is Rs.42 for 10 tablets. So the per unit price of the medicine is rs 4.2 for each tablet.
- The comparison of price of the medicine available at Jan aushadhi store and other branded medicine is given below.

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than jan aushadhi medicine
Cefixime 200	Jan Aushadhi	42(for 10 tablets)	4.2	
1.Zifix 200	FDC Ltd	119(for 10 tablets)	11.9	183.33% costlier
2.Taxim-O 200	Alkem Laboratories Ltd	118(for 10 tablets)	11.8	180.95% costlier
3.Cefix 200	Cipla Ltd	107.74(for 10 tablets)	10.774	156.52% costlier
4.cefolac 200	Macleads	102.699for 10	10.269	144.5% costlier

	Pharmaceuticals Pvt Ltd	tablets)		
5.Omnicef O 200	Aristo Pharmaceuticals Pvt Ltd	98.72(for 10 tablets)	9.872	135.04% costlier
6.cefsparan 200	Glaxo Smithkline Pharmaceuticals Pvt Ltd	89.04(for 10 tablets)	8.904	112% costlier
7.ceftas 200	Intas Pharmaceuticals Ltd	83.82(for 10 tablets)	8.382	99.57% costlier
8.mahacef 200	Mankind Pharma Ltd	83.77(for 10 tablets)	8.377	99.45% costlier
9.milixim 200	Glenmark Pharma Ltd	74.19(for 10 tablets)	7.419	76.64% costlier
10.cefilab 200	Ozone Pharmaceuticals Ltd	65.67(for 10 tablets)	6.567	56.35% costlier

The above comparison shows the difference between the branded medicine and salt of the medicine available at Jan aushadhi store. The results show that a person can save his money by switching from branded medicine to Jan aushadhi medicine.

8. Diclofinac 50 mg

- This medicine is used to treat mild to moderate pain or signs and symptoms of osteoarthritis or rheumatoid arthritis.
- The price of this medicine at Jan Aushadhi store is Rs 5 for 10 tablets. So the per unit price is 0.5.
- The comparison of price of this medicine available at Jan aushadhi store and other branded medicine is given below.

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than Jan Aushadhi medicine
Jan Aushadhi		5(for 10 tablets)	0.5	
1.Maxxilef 50	Maxzima Pharmaceuticals Pvt Ltd	49.3(for 10 tablets)		% costlier
2.Qrel 50	Perk Pharmaceuticals Ltd	34(for 10 tablets)	3.4	580% costlier
3.Inac 50	Zydus Cadila	23.03(for 10 tablets)	2.3	360% costlier
4.Dicloran 50	Lekar Pharma Ltd	21.5(for 10 tablets)	2.15	330% costlier
5.Divon 50	Micro Labs Ltd	21.39(for 10 tablets)	2.139	327.8% costlier
6.Dynapar EC	Troikaa Pharmaceuticals Ltd	21.34(for 10 tablets)	2.139	327.8% costlier

7.Dairo 50	Icon Life Sciences	20(for 10 tablets)	2	300% costlier
8.Nac 50	Systopic Laboratories Pvt Ltd	16(for 10 tablets)	1.6	220% costlier
9.Dilona 50	Mapra Laboratories Pvt Ltd	16.1(for 10 tablets)	1.6	220% costlier
10.Reactin 50	Cipla Ltd	15(for 10 tablets)	1.5	200% costlier

The above comparison clearly shows the difference in price of generic medicine available at jan aushadhi store and other branded medicine.

9. Omeprazole 20 mg

- This medicine is used to treat heartburn, acid reflux and peptic ulcer disease.
- The price of this medicine at jan aushadhi store is Rs 9 for 10 tablets. So the per unit cost of the medicine is 0.9.
- The comparison of price of the medicine at jan aushadhi store and other branded medicine is given below.

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than jan aushadhi medicine
Omeprazole 20 mg	Jan Aushadhi	9(for 10 tablets)	0.9	
1.Omicap	Micro Labs Ltd	50.62(for 10 tablets)	5.062	462.44% costlier
2.Ometab	Intas Pharmaceuticals Ltd	39.15(for 10 tablets)	3.915	335% costlier
3.Ocid 20	Zydus Cadila	61.92(for 20 tablets)	3.096	244% costlier
4.Omez 20	Dr. Reddy's Laboratories Ltd	61.48(for 20 tablets)	3.074	241.22% costlier
5.Oskar 20	Mankind Pharma	26.68(for 10 tablets)	2.668	196.44% costlier
6.Biocid	Biochem Pharma Industries	24.55(for 10 tablets)	2.455	172.78% costlier
7.Omesec	Sun Pharmaceuticals Ltd	19(for 10 tablets)	1.9	111% costlier

The above comparison clearly shows the difference in prices of the medicine available at jan aushadhi store and other branded medicine.

10. Calcium and Vitamin D3

- This medicine is used to treat deficiency of calcium and vitamin D3 in patients.
- The price of the medicine available at jan aushadhi store is Rs 7 for 10 tablets. So the per unit price is Rs. 0.7.

- The comparison of price of medicine available at jan aushadhi store and other branded medicine is given below.

Medicine Name	Brand	Price of strip	Per unit price	Percentage costlier than jan aushadhi medicine
Calcium & Vitamin D3	Jan Aushadhi	7(for 10 tablets)	0.7	
1.Collacium D3	Auftritt Health Pvt Ltd	180(for 10 tablets)	18	2471.42% costlier
2.D500 Cal	Eris Life Science Pvt Ltd	70.81(for 10 tablets)	7.081	911.57% costlier
3.Tricium 500mg	Corona Remedies Pvt Ltd	103.85(for 15 tablets)	6.923	889% costlier
4.Ossopan 500	Ttk Healthcare Ltd	101.20(for 15 tablets)	6.746	863% costlier
5.Catch D3	Vasu Organics Pvt Ltd	91.8(for 15 tablets)	6.12	774.28% costlier
6.Cipcal 500	Cipla GX	86.50(for 15 tablets)	5.767	723.85% costlier
7.Calcifit 500	Meridian Enterprises Pvt Ltd	168(for 30 tablets)	5.6	700% costlier
8.Sincal	Sinsan Pharmaceuticals Pvt Ltd	83.50(for 15 tablets)	5.567	695.28% costlier
9.Calbisix Chu Strip	Eisen Pharmaceuticals Pvt Ltd	53(for 10 tablets)	5.3	657.14% costlier
10.Dailycal 500mg	Systopic Laboratories	52.50(for 15 tablets)	3.5	400% costlier

The comparison clearly shows there is huge difference in prices of the generic medicine available at jan aushadhi store and branded medicine. A person can save a lot of money by swticing from branded medicine to Jan Aushadhi medicine.

RESEARCH FINDINGS

The above research is a comparative analysis of prices of selected medicines available at Jan aushadhi store and branded substitutes of the medicine. Prices of jan aushadhi medicines were compared with the selected branded substitutes. Results showed that there is huge difference in prices in most of the medicines. The difference in prices is showed by percentage so that a lay man can also understand the difference. The tabular representation makes it easy and quick to understand the prices , per unit price and difference in prices of generic and branded medicines. The results are very clear that the generic medicines available at jan aushadhi store are much cheaper than branded medicines. Hence a person can save his hard earned money by switching from branded medicine to generic medicine available at jan aushadhi store.

CONCLUSION

Pradhan Mantra Bhartiya Jan Aushadhi Pariyojana focuses on saving health care expenses of the people. Through the above analysis it is clearly understood that the scheme is very helpful in saving people's money so that poor can tolerate health care expense without over burdening themselves with debt. The scheme is a milestone in providing affordable medicines to specially poor people of India, hence making people's life easy in providing cost efficient medicines.

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COVID-19 AND URBAN NON-FARM EMPLOYMENT IN INDIA AND TELANGANA**¹B. Padmapriya and ²Seilienthang Baite**¹Ph.D Scholar, Centre for Economics and Social Studies (CESS), Hyderabad, India²Research Scholar, Department of Economics, Manipur University**ABSTRACT**

Employment was and still remains one of the biggest challenges that India faces today. The share of agriculture in employment and output has been falling while the share of the non-farm sector has increased. With the incidence of the COVID-19 pandemic in 2020, it was seen that workers in the non-farm sector felt the brunt of the pandemic more than those in the agriculture sector. Due to the various restrictions imposed to curb the spread of the virus, workers and employment in the non-farm sector declined drastically. The impact was also found to be uneven across gender, type of employment and sector. Informal employment, employment in micro, small and own account enterprises, and the casual labor force were found to be comparatively more adversely affected than the others. Women were also found to be more vulnerable compared to men as a result of the crisis. To have a better picture of how the pandemic affected the employment in urban non-farm sector, the study compares the trends of employment in the urban non-farm sector before and after the pandemic in India and Telangana by making use of quarterly data from May-August 2018 to May-August 2022 of the Centre for Monitoring Indian Economy (CMIE) and Periodic Labour Force Survey (PLFS) reports.

Keywords: Employment, COVID-19, Urban non-farm sector

1. INTRODUCTION

Indian economy has been experiencing structural changes in recent years, in both output and employment, with the share of agriculture falling while the share of the non-farm sector continuously rising. The employment in non-farm sector in almost all the states of India has been consistently increasing over the years, and this shift from agriculture to non-agriculture sector has been well visualised. The non-farm sector is slowly becoming a major player in the Indian economy for providing employment and income to many people in both rural as well as urban areas. The main reason for this transition from agriculture to the non-farm sector was believed to be the availability of alternative employment opportunities at relatively higher wages. The Indian economy experienced a phase of structural transformation in employment during 2004-05 and 2011-12 in which both the share and number of workers in non-farm sectors increased while there was a corresponding decline in agriculture and allied sectors (Himanshu, 2011; Kannan & Raveendran, 2019; Mehrotra et al., 2014; Mehrotra & Parida, 2019). However, the situation has slightly tilted downwards due to the impact of the COVID-19 pandemic. The workers in the non-farm sector felt the brunt of the pandemic more than those in the agriculture sector. The crisis led to a sharp rise in unemployment with job losses, reduced wages, and restricted hours. Employment has remained one of the top challenges for policymakers in India, and this has become even more complex over the years. Even before the COVID-19 pandemic, Indian economy was already on the jobless growth path, and the pandemic only aggravated the situation.

India reported its first positive case of COVID-19 from Kerala on 30th January 2020. The number of daily new positive case of the pandemic jumped to 1,801 by 30th April 2020, further to 8,336 by 30th May 2020, reached 18,256 by 30th June 2020 and the number peaked at 4,14,433 on 6th May 2021. Considering the contagiousness of the virus, the Government of India on 24th March 2020 declared a complete lockdown in the country for 21 days from 25th March 2020 to 14th April 2020. However, owing to the continuous increase in the number of active cases in majority of the states, the lockdown was extended for another 19 days till 3rd May 2020.

Many state governments continued to impose lockdowns till late July although the nation-wide lockdown was slowly being eased. The first phase of the lockdown in India was among the most stringent in the world (Hall et al, 2020). All educational institutions and non-essential public and private enterprises including non-essential transport and hospitality establishments were completely closed and large gatherings were prohibited. The government allowed only essential services such as banks, internet services and shops selling food and essential items to operate, and this was done with social distancing and other preventive measures. It was only in late July 2020, that the government began to gradually remove the lockdown restrictions in the country. The restrictions, however, continued to be in place in containment zones only. The country experienced the second and third wave of the COVID-19 pandemic in 2021, but the government was better prepared and equipped than in 2020 to tackle the challenges it posed.

The Centre for Monitoring Indian Economy (CMIE) data revealed that in April 2020, 128 million employments was lost in India. The lockdown measures that were announced in March 2020 listed the agriculture sector as an essential service, but it shut down the operations held by non-farm sector. Both demand and supply of labour in the non-farm sector were significantly affected by the pandemic imposed lockdowns, restriction of movements, social distancing norms and the reduction in the demand for goods and services. Among the non-farm sectors, manufacturing was one of the hardest hit sectors in the economy as restrictions came into place. The pandemic's effects on the labor market have not been uniform and were comparatively severe for some type of employment than others. Informal employment, employment in micro, small and own account enterprises, and the casual labor force were comparatively more adversely affected than the others. The impact of the pandemic was observed to be uneven for different regions as well. There was also a huge gender disparity that was seen amidst the crisis. It was observed that women were seven times more likely to lose work than men and they were eleven times more likely to not return to work compared to men. Women were marginally more likely than men to be in non-regular employment, and thus, their vulnerability increased as a result of the pandemic (Abraham, Basole and Kesar, 2021). No doubt the recovery process has begun, but the recovery has not been satisfactory and still much needs to be done to reach the pre-COVID levels. The objective of this paper is to contribute to the knowledge base on the impact of COVID-19 on the non-farm sector of the country in general and the state of Telangana in particular. The study compares the trends of employment in the urban non-farm sector before and after the pandemic in India and Telangana. The quality of employment is analyzed by looking into gender based employment, employment by educational qualification, broad status of employment, type of enterprise, formal and informal employment. The paper also sheds light on regular and casual wages.

Though much literature is available with regards to the pandemic's impact on employment in the country, state specific studies on the pandemic's impact on the non-farm sector are rare to find and the present paper tries to bridge the gap. During the first decade of the 21st century, India became more urbanised than ever. Although still majority of the people are in rural areas, the share of India's population living in urban areas increased from 27.67 percent (292 million) in 2000 to 30.93 percent (382 million) in 2010, further increased to 35.39 percent (493 million) in 2021 and is expected to increase to 675 million by 2035. This increased urbanisation can be seen as a step in the right direction, but it also comes with its own set of challenges. In the beginning of the 21st century, the Indian economy grew at a rate in excess of 7 percent per annum, up from average growth rates of around 5 percent during the 1990s. However, these high rates of output growth have not been in match with employment growth. The inability of high rates of growth in India to generate sufficient employment opportunities first received serious attention in the late 1990s when aggregate employment generation fell quite significantly (Chandrasekhar and Ghosh, 2007). The structural change in employment in India in the last few decades show an absolute decline in agriculture employment (about 5 million per

annum) and an increasing number of construction, manufacturing (particularly in the low skilled labour intensive sub-sectors) and service sector (trade, communication and social services etc.) employment (Mehrotra et al., 2014). While employment generation did pick up in the early 2000s, it did not recover to the rates that were achieved in the early 1990s and the late 1980s. Between 1999-00 and 200-05, there was a significant decline in all forms of wage employment. Regular wage employment as a share of total employment had been declining in India, and over this period, casual wage employment as a share of total employment also declined. This was accompanied by a very significant increase in self-employment in India (Chandrasekhar and Ghosh, 2007). The phenomenon was observed not only in the agriculture sector and in rural areas, but increasingly in the non-farm sector and urban areas of India as well. It was also observed that the urban employment trends in India defy predictions and stereotypes. Rather than being increasingly absorbed into modern formal wage employment, the urban workforce in India is becoming increasingly informal. Nearly half of the urban workforce is self-employed. Within the overall slow-down in employment growth, it was observed that self-employment has decreased for both men and women in both rural and urban areas, and casual work has increased in rural areas. Several explanations have been posited for this reversal in employment trends. First, that the substantial increase in the number of persons engaged in education, especially among those aged 15 to 24 years means that more young men and women remain “economically inactive” because they are still in school or because they are waiting for good jobs as education has changed their aspirations. Second, that the decline in self-employment is linked to the decline in agricultural employment. But there has also been a marked deceleration in non-agricultural employment. Third, that the global economic crisis led to a decrease in exports which led, in turn, to a decrease in export-linked employment especially in manufacturing. But export-linked employment represents only a small share of total employment (Chen and Raveendran, 2012). An analysis of the Periodic Labour Force Survey data reveals that employment has been consistently increasing for both males and females in India in the last few years in both rural and urban areas. The same can be said for Telangana with the exception of a slight decline (0.8%) in urban female employment in 2020-21 from 2019-20. There was also a significant increase in work opportunities in the country, and the number of jobs created in industry and services continue to increase. India needs to embrace her urban informal economy rather than trying to destroy it, and should accept that the urban informal economy is here to stay and is part of the solution, not the problem. After all, the urban informal economy contributes directly to the economic and social fabric of cities: it contributes to the overall level of economic activity and output; it contributes to the provision of goods and services at prices that are affordable; it provides employment opportunities and serves as a laboratory for entrepreneurship; and much of it reflects and sustains local cultural traditions (Chen and Raveendran, 2012).

The rest of the paper is organized as follows: Section 2 describes the data, the variables used, the sample and the method. Section 3 introduces our findings and results, and section 4 concludes the paper with some policy suggestions.

2. DATA AND APPROACH

The analysis is carried out by making use of data from Centre for Monitoring Indian Economy (CMIE) and Periodic Labour Force Survey (PLFS) reports. CMIE releases monthly data related to labour markets in India along with their distribution by region, gender, age, occupation, etc. Since the focus is on understanding the impact of the crisis on employment and the recovery's nature, the analysis considers quarterly data from May-August 2018 to May-August 2022. As quarterly reports of PLFS give estimates of working population in urban areas, the present study also focuses on urban non-farm workers. The study analyzes employment aspects during pre and post-COVID in India and the state of Telangana.

3. TRENDS OF EMPLOYMENT GROWTH IN INDIA AND TELANGANA

The labour market issues at state level are discussed for various challenges such as the resilient economy, selected indicators of employment being better than the national average before and during the pandemic. Telangana is one among the few states that maintained decent GSDP share with 2.2 percent growth in the year 2020-21. When the country's GDP contracted by 6.6 percent, the decline in the state's GSDP was limited to 3.5 percent. One common factor between the state and the nation is both has witnessed a V-shaped recovery in the post pandemic year 2020-21. However, the strong growth experience could not be reflected in increasing employment numbers either in farm sector or in non-farm sector. Thus, the present study aims to understand the reasons behind the sparse growth of employment numbers in Telangana.

3.1. Worker Population Ratio

Telangana's worker population ratio (WPR) is consistently higher than all India both before and during the pandemic. One of the interesting observation that can be drawn from the below table is that female WPR of Telangana is higher than India's average WPR, though it is lower than male WPR. The reason for WPR of females in Telangana being higher than national average is due to urbanisation in the state. The city of Hyderabad, which is a tier-1 city in India, acts as an abode for employment opportunities. As a result, people intra-migrate from other districts of Telangana in search of work in non-farm sector. This is one of the important reasons for increase in female participation rate in Telangana compared to all India.

	India			Telangana		
Quarter-wise data	Male	Female	Total	Male	Female	Total
April-June 2018	67.0	16.4	41.8	68.5	17.5	42.9
April-June 2019	67.3	16.9	42.4	65.7	18.7	42.4
April-June 2020	56.9	15.5	36.4	56.7	18.1	38.0
April-June 2021	64.2	17.2	40.9	65	21.6	44.0
April-June 2022	68.3	18.9	43.9	67.7	21.8	45.0

Table 1: Work Population Ratio (in percent)

Source: Periodic Labour Force Survey (PLFS), NSO

3.2. Employment in Farm and Non-Farm Sector

It was observed that employment in the non-farm sector was increasing, while that in the farm sector was slowly declining because of the pandemic. While most of the workers work in the non-farm sector in urban areas in Telangana, the percentage of workers working in farm-sector in Telangana is lower compared to all India. As per the quarterly reports of PLFS data, 5.4 percent of the worker population in India was employed in farm-sector in the quarter April-June, 2022 whereas in Telangana, 4.7 percent of the population worked in farm sector in the same quarter of 2022. Coming to non-farm sector, India maintained a constant participation rate before and during the pandemic period. It remained constant at 94 percent for all India. However, it declined from 97 percent to 95.2 percent by 2022 in Telangana. The fall in employment in non-farm sector of Telangana could be due to the impact of COVID-19 on non-farm sectors. A sudden fall in employment rate in Telangana was witnessed in 2020 when the first lockdown was imposed. In the subsequent years, though the government lifted lockdown measures, the state couldn't recover faster in terms of employment.

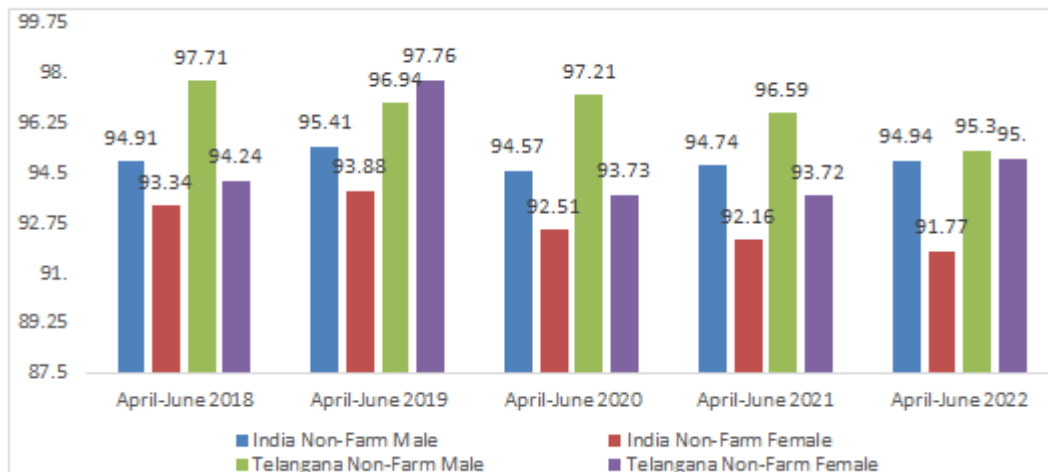


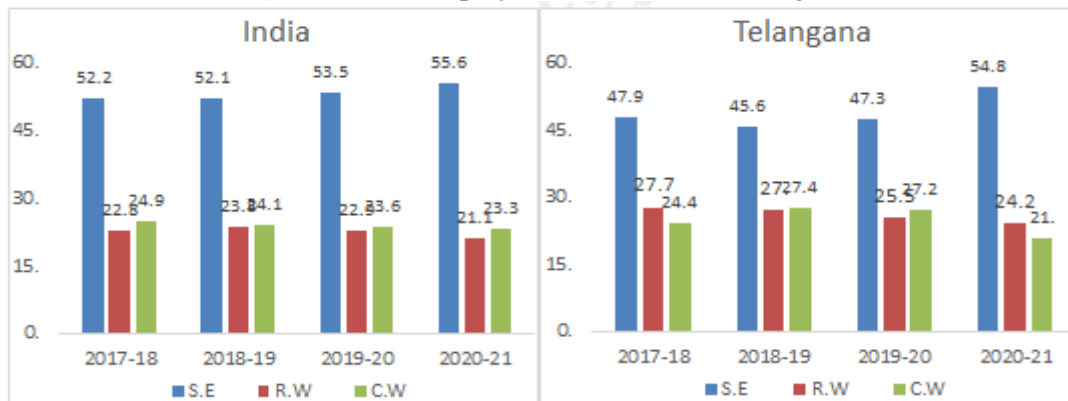
Fig 1: Urban non-farm employment in India and Telangana

Source: Authors calculation from Periodic Labour Force Survey (PLFS), NSO

Fisher, 1935 and Clark, 1971 explains the classical pattern of structural transformation. According to them, as each sector of the economy develops in stages, the transition of labour takes place from agriculture to manufacturing and to service sector. The contrary phenomenon is observed in India during 2020 and in post pandemic period. Due to stringent lockdown measures, reverse migration was observed, and it was observed more so among women than men in India. The reason for this phenomenon could be attributed to the lack of job availability in non-farm sector. Due to fall in output, lack of investments and stalling of the growth process, the transition has reversed from factories to farms in India. As jobs in manufacturing sector dries up, workers are returning to the low productivity farm sector (Vyas, 2021). However, reverse migration is seen comparatively lesser in Telangana.

3.3 Employment Impact by Type of Employment

The employment status of a person is classified on the basis of economic activity. The percentage of self-employed workers is more than the regular salaried workers and casual labours both in India and Telangana before and after the pandemic. During the year 2019-20, the proportion of casual labour fell from 27 percent to 25 percent in Telangana, while in India, it declined from 24 percent to 23 percent. It is after the pandemic in 2020-21, the fall of casual labour in Telangana has been the highest (27 percent to 21 percent) compared to other types of employment. A fall in the employment level of casual labours in the year 2020-21 is also high compared to the national average. On the other hand, the employment trend of regular salaried workers in Telangana and India did not change much during the pandemic period. In the year 2020-21, one percent fall in the employment levels in this category was observed indicating a rise in unemployment levels. On the other hand, the percentage of self-employed workers further increased from 47 percent to 54.8 percent, which is close to the national average of 55.6 percent in 2020-21.

Fig 2: Status of employment in India and Telangana

Source: Authors calculation from Periodic Labour Force Survey (PLFS), NSO

Though a decrease in casual workers' proportion in Telangana is a good sign, poor recovery in regular salaried workers depict the nature of changes in the labour market after the pandemic. Lockdown has definitely taken a toll on employment in all sectors, creating informalisation, increasing temporary contractual jobs and increasing job insecurities in the labour market.

3.4 Employment by Level of Education

We have taken education as an important criterion for determining employment. Accordingly, percentage of workers with their educational qualifications is presented to understand the impact of COVID on educated and uneducated workers. It appears that in all India, workers with no education and with primary education have been severely affected. In contrast, workers with secondary and graduation degrees were less affected and in fact, their employment increased significantly in the post-COVID period.

Table 2: Employment by education in non-farm sector (percent)

India					
	May-Aug, 2018	May-Aug, 2019	May-Aug, 2020	May-Aug, 2021	May-Aug, 2022
No Education	33.5	35.5	24.3	29.3	18.2
Upto 5 th standard	39.8	38.8	29.5	32.5	30.8
10 th - 12 th standard	39.2	37.7	36.3	35.3	35.2
>= Graduate	52.8	52.2	46.2	47.9	50.7
Telangana					
	May-Aug, 2018	May-Aug, 2019	May-Aug, 2020	May-Aug, 2021	May-Aug, 2022
No Education	44.4	53.8	57.1	55.1	38.9
Upto 5 th standard	54.6	59.4	60.0	63.8	46.8
10 th - 12 th standard	48.7	49.1	44.4	35.6	35.4
>= Graduate	51.0	53.1	31.8	36.4	47.8

Source: Authors calculation from CMIE Database.

The employment of workers with no education and primary education showed a gradual decline in Telangana. The employment percent in this category has actually increased from 44.4 percent to 57.1 percent by 2020. However, during the later period, it declined to 55.1 percent by 2021 and further declined to 38.9 percent by 2022. Similarly, employment recovery for workers with graduation degree in Telangana is only 47.8 percent, which is lower than the national average of 50.7 percent. Workers with secondary education experienced the largest employment decline in Telangana. In 2020 (lockdown period), the employment of workers with secondary education declined to 44.4 percent in Telangana, while the magnitude of the decline is considerably less in all India (36.3 percent). In 2022 (post-COVID period), the employment of workers with secondary education further declined to 35.4 percent, recording the highest decline compared to all India (35.2 percent).

3.5 Employment by Enterprise Type

It is clearly understood by now that the employment impact of the COVID-19 crisis is disproportionate across different status of employment. Another major impact of the crisis can be seen in the enterprise type. From the CMIE database, it is analysed that most of the enterprises belong to proprietary and partnership class and the least of all enterprise type exists in autonomous bodies both in India and Telangana. The male working in proprietary and partnership type and in public/private limited company is more than female percentage. However, in Telangana male dominates in all enterprise types and their percentage is more than the female percentage.

Table 3 (a) (b): Persons engaged in non-farm sector by enterprise type (percent)

India								
Male	Proprietary and partnership	Public sector enterprise	Autonomous bodies	Public/ pvt ltd company	Co-operative societies	Trust/other non-profit institution	Employer's household	Other
2017-18	71	10.7	0.3	9.4	0.4	0.6	0.8	6.9
2018-19	71.5	10.6	0.2	10.4	0.4	0.7	1	5.3
2019-20	72.9	10.2	0.4	10.4	0.4	0.9	0.4	4.4
2020-21	75.3	9.5	0.3	10.3	0.4	0.7	0.7	2.9
Female								
2017-18	54.7	21.9	0.6	8.3	0.5	2.3	7.4	4.3
2018-19	54.1	22.3	0.3	9.6	0.5	2.4	7.4	3.4
2019-20	56.5	21.6	0.7	9.6	0.5	2.5	4.1	4.5
2020-21	56.7	23.2	0.4	8.2	0.5	2	7.2	1.9

(a)

Telangana								
Male	Proprietary and partnership	Public sector enterprise	Autonomous bodies	Public/ pvt ltd company	Co-operative societies	Trust/other non-profit institution	Employer's households	Other
2017-18	59.3	11.2	0.2	11.4	0.3	0.7	2.7	14.1
2018-19	65.7	10.1	0.2	10.7	0.6	0.8	3.6	8.3
2019-20	66.8	13.3	0.1	12.6	0.2	0.8	0.8	5.3
2020-21	69.1	10	0.2	13.4	0.1	0.1	1.9	5.3
Female								
2017-18	61.6	10.9	0	6.7	0	1	9.9	9.9
2018-19	66.1	12.6	0	5.1	0.9	0.4	9.4	5.5
2019-20	61.3	22.2	0.3	6.2	0.1	0.3	2.7	7
2020-21	68.4	15.5	0	6.2	0.2	0.2	7.9	1.5

(b)

Source: Authors calculation from CMIE Database

COVID-19 has severely affected all enterprise types in India and Telangana. The percentage of male and female workers working in proprietary type in India is more compared to workers working in the same enterprise type in Telangana. However, the growth of male and female working in proprietary enterprise type is more in Telangana. The percentage of male working in proprietary and partnership type in India was 71 percent in 2018, whose share increased to 75 percent by 2022. Similarly, the percentage of female working in proprietary and partnership type in India was 54 percent in 2018 whose share increased to 56.7 percent by 2022. In Telangana, the share of male and female working in this enterprise type increased from 59 percent in 2017-18 to 69 percent in 2020-2021, and from 61 percent in 2017-18 to 68 percent in 2020-2021.

The workers working in autonomous bodies, which constitute less percentage among all enterprise types remained constant for male in both India and Telangana. However, the percentage of female enterprises declined from 0.6 percent in 2017-18 to 0.4 percent in 2020-21 in India and remained at 0 percent in Telangana.

3.6 Employment by Formal and Informal Sector

The COVID-19 induced lockdowns in India affected different workers differently. It is well known fact that India's labour market has been facing the challenge of informalisation for the last many years. Workers are severely affected with social insecurities due to forced migration and job loss during pandemic. Many of them are pushed to informal jobs with no job contract, social security benefits and paid leave provisions. In the initial phase of the pandemic, it was seen that the informal wage workers were more vulnerable to job losses than the formal workers, and their income also declined significantly more than those who were in formal employment. Prior to the pandemic, the average income earned per day in the non-farm sector was significantly higher than the average income earned in the farm sector, and thus, the chances of workers in the farm sector falling below the poverty line was much higher than their counterparts in the non-farm sector. However, these differentials between the formal and informal workers narrowed after April 2020. This suggests that the informal workers were affected more severely during the initial phase of the pandemic, but also recovered faster from it.

Table 4: Percentage of non-farm workers working in the informal sector

Male	India	Telangana
2017-18	38.8	39.3
2018-19	39.8	49.4
2019-20	39.8	37.8
2020-21	39.2	38.2
Female		
2017-18	35.0	45.4
2018-19	36.9	49.6
2019-20	37.9	45.5
2020-21	34.6	43.9
Person		
2017-18	38.0	40.5
2018-19	39.2	49.5
2019-20	39.3	40.0
2020-21	38.1	39.7

Source: Authors calculation from Periodic Labour Force Survey (PLFS), NSO

At all India level, the percentage of male workers working in informal sector increased from 38 percent in 2017-18 to 39 percent in 2020-21. While the percentage of female workers working in informal sector declined from 35 percent in 2017-18 to 34 percent in 2020-21. On the contrary, in Telangana, the percentage of male workers working in informal sector decreased from 39 percent in 2017-18 to 38 percent in 2020-21 and the percentage of female workers working in informal sector declined from 45 percent in 2017-18 to 43 percent in 2020-21. Though the percentage of informal workers declined in recent times, the percentage of workers working in informal sector of Telangana is more compared to all India. Also, the percentage of female workers working in informal sector in Telangana is more than men, raising serious concerns on the quality of employment.

3.7 Wages of Workers in India and Telangana

Apart from understanding the employment conditions, the well-being of a worker is understood by looking into his wages. As the status of employment is classified into three types, separate analysis is made on understanding the wage trend before, during and post pandemic for regular and casual workers.

Table 5: Regular wages in India and Telangana

India	Male	Female	Person
2017-18	17697.78	13890.27	16847.65
2018-19	17160.97	12850.52	16196.24
2019-20	18514.89	14688.15	17600.17
2020-21	18652.62	13926.91	17509.35
Telangana	Male	Female	Person
2017-18	20238.27	11900.59	18623.97
2018-19	19045.88	12910.14	17646.94
2019-20	21837.56	13304.38	19,794.63
2020-21	23998.41	17751.43	22264.7

Source: Authors calculation from Periodic Labour Force Survey (PLFS), NSO

In 2017-18, the average wage received by regular wage worker in India was Rs 16,847, which rose to Rs 17,509 by 2020-21. Similarly, the average wage received by regular wage workers in Telangana was Rs 18,623 which rose to Rs 22,264 by 2020-21. Data indicates that the regular pay workers working in Telangana state are attaining higher wage compared to all India. However, government must take due policies to reduce the wage gap between male and female in all India and Telangana.

Table 6: Casual wages in India and Telangana

India	Male	Female	Person
2017-18	280.09	176.88	258.43
2018-19	287.88	174.54	264.38
2019-20	317.28	211.89	292.51
2020-21	356.76	232.72	326.72
Telangana	Male	Female	Person
2017-18	350.31	218.06	305.86
2018-19	340.82	243.35	298.62
2019-20	443.51	320.56	376.33
2020-21	386.11	294.88	339.51

Source: Author calculations from Periodic Labour Force Survey (PLFS), NSO

Though the wages attained by casual workers are less compared to regular/salaried workers, the trend for casual workers is the same as regular workers. In 2017-18, the average wage received by casual wage worker in India is Rs 258, which increased to Rs 326 by 2020-21. Similarly, the average wage received by casual wage worker in Telangana is Rs 305, which increased to 339 by 2020-21. Female casual labour received lesser wages compared to male casual labour from 2017-18 to 2020-21.

4. CONCLUSION AND POLICY SUGGESTIONS

The analysis of the impact of COVID-19 on employment in India and Telangana shows that the highest employment decline was witnessed during the pandemic year 2020, and it has started recovering slowly thereafter.

Much of the employment loss during the pandemic was found in all India, while Telangana showed a better resilience in terms of regaining growth and employment. The loss of employment in Telangana during May-August quarter in 2020 could be attributed to the lack of job availability in the non-farm sector. As stringent lockdown measures were implemented, reverse migration took place. Reduced investments have stalled the growth process, further effecting the employment in non-farm sector.

The loss of employment was significantly higher for workers with secondary level of education. In contrast, people with no education and primary education recovered the lost jobs during May-August 2020, suggesting government took due care in helping the down-trodden with loss of employment in Telangana. The study also shows an increase the informalisation of labour in Telangana as more workers joined the workforce as casual wage workers after the initial loss of employment during the lockdown period. Also, the percentage of female workers working in informal sector in Telangana is more than men, raising serious concerns on the quality of employment.

Major discrimination in terms of wages is also noticed among regular and casual workers in non-farm sectors. The casual female workers are more vulnerable compared to regular workers as the wage gap between male and female is very high in this type of employment. Therefore, the study suggests the government to take due policy action in reducing the catastrophies faced by vulnerable people in the society. As unleashing growth and overcoming unemployment and underemployment is the major goal of the economy, the government is advised to provide as much productive work as possible. This indeed can counter the reverse migration in future.

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FOOT NOTES

1. The non-farm sector includes all economic activities other than agriculture, poultry, livestock and animal husbandry. It includes handicraft, small-scale manufacturing, construction, mining, quarrying, repair, transport and other services.
2. <https://www.worldometers.info/coronavirus/country/india/>
3. <https://www.macrotrends.net/countries/IND/india/urban-population>
4. <https://www.thehindu.com/news/national/indias-urban-population-to-stand-at-675-million-in-2035-behind-chinas-1-billion-un/article65584707.ece>
5. Regular workers are those who have fixed contracts and receive salaries/wages on a regular on-going basis; casual workers are those who are contracted and receive wages on a daily, weekly, or seasonal basis.
6. A V-shaped recovery is a quick, sharp improvement in an economy after a sharp decline. In a graph, taking the recession point at the bottom, the rapid improvement from that point forms the right side of the letter V.
7. Cities in India have been classified into three tier categories. City with 1,00,000 or more population are called tier 1 cities. Hyderabad is a tier-1 city in Telangana.
8. The transfer of labour from non-farm sector to farm sector which is also termed as reverse transition or reverse migration is found more among female compared to male in India.
9. In PLFS rounds, the employed persons are broadly classified as self-employed, wage/salaried worker, contract worker and casual labour.
10. Percentage of informal workers constitutes those workers who work without job contract, not eligible for paid leave and work without social security benefits.

CSR AND SUSTAINABLE DEVELOPMENT ACTIVITIES OF PSU: A STUDY OF NATIONAL THERMAL POWER CORPORATION

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ABSTRACT

The advantage of keeping business organisations accountable to contemporary social norms is known as corporate societal responsibility (CSR). CSR is a company's commitment to long-term economic success via partnership with employees, their families, local communities, and society in general to improve their quality of life and preserve the entire community for future generations. Environmental insurance and progress are one such topic that demands consideration from both the government and business organisations. The situation appears to have improved in recent years, notably with the enactment of the Companies Act of 2013. The goal of this study is to look at National Thermal Power Corporation's CSR activities over the course of five fiscal years.

Keywords: Corporate social responsibility, National Thermal Power Corporation, Sustainable Development, PSU.

INTRODUCTION

CSR is a sort of worldwide private business self-regulation that strives to contribute to philanthropic, activist, or altruistic societal goals through volunteering or ethically-oriented behaviour (Sheehy, 2015). (2013) (Kotler) (Kotler). CSR was once characterised as an internal organisational policy or a corporate moral strategy, but that time has passed as various international regulations have been enacted and many organisations have utilised their influence to broaden it beyond individual or even industry-wide initiatives. While it has long been seen as a kind of corporate self-regulation (Sheey, 2012), it has grown significantly in the last decade or so, shifting from voluntary decisions at the individual firm level to mandatory programmes at the regional, national, and worldwide levels.

The debate on sustainable development in India has been marked by acute poverty and large disparities in commodity and service distribution. More than five decades ago (at the United Nations Conference on Human Environment in 1972), Prime Minister Indira Gandhi stated that poverty and environmental issues in developing nations are intimately intertwined, and that one cannot be handled without the other. Dr. Manmohan Singh, India's Prime Minister, declared in 2013, "India aims to achieve prosperity and poverty reduction in a sustainable way, keeping in mind the needs of people, especially the poor."

Public Sector Undertaking

A public sector undertaking or enterprise is another term for a government firm. A "Government Company" is defined as "any company in which the Central Government, or any State Government or Governments, or partly by the Central Government and partly by one or more State Governments, holds not less than fifty-one percent of the paid-up share capital, and includes a company that is a subsidiary company of such a Government company" under Section 2 (45) of the Companies Act of 2013. Although public sector firms are predominantly public corporations, the word does not refer to a public company (with freely transferable shares and more than 200 stockholders). Public Sector companies are government-run enterprises that charge customers for services.

Tariffs and levies may be market-based or subsidised. Railways, Post Offices, Defense Undertakings, Banks, and other government-controlled enterprises are typically entirely owned and administered by the government. Public sector firms, on the other hand, are corporations

governed by a Chairman and Managing Director nominated by the government and established under the Companies Act of 1956. The interests of the government are represented by government candidates on the boards of public-sector firms. In both local and foreign markets, public sector corporations routinely compete with private sector enterprises.

Corporate Social Responsibility

Corporate Social Responsibility (CSR) has acquired prominence in business reporting. Every company has a CSR policy that mandates them to provide an annual report detailing their activities. Every company can tell the difference between socially responsible and non-socially responsible corporate practises. There are two significant components to this. To begin, few people agree on what constitutes social responsibility. It is typically impossible to define something, even if one claims to know what it is or is not. The wide definition of social responsibility is concerned with the relationship that occurs or should exist between global corporations, national governments, and people. The phrase especially refers to the corporation's engagement with the local society in which it resides or operates. Another phrase refers to a company's relationship with its stakeholders. CSR is the voluntary incorporation of social and environmental problems into a company's economic activities and relationships with stakeholders. An increasing number of experts and writers recognise that the acts of the organisation have an impact on the external environmental circumstances and have advocated that one of the responsibilities of accounting should report on the organization's influence in this respect.

About NTPC (National Thermal Power Corporation)

NTPC Ltd. is India's largest power producing corporation, sometimes known as a "integrated power major" in the industry. The company has been in business since 1975 and has a pan-India presence across the whole power industry value chain.

The generation and selling of energy is the foundation of its company. As with typical power companies across the world, it began with conventional coal-based electricity and then shifted gears to minimise its carbon footprint by diversifying into hydropower and renewables. The diversity does not end there.

In addition to coal mining and the ash business, NTPC has delved into consultancy and training. As a climate-positive firm, NTPC is emphasising renewable energy sources including solar, wind, hydro, and small hydropower. During the 2018-2019 fiscal year, the giant generated 1.5 BU (billion units) of renewable energy.

This high-efficiency PSU keeps things big yet simple, whether it's sustainability, corporate governance, community development, or power generation. Year after year, it has been among the top five largest Indian firms in terms of market capitalisation.

Despite a frenzy of industrial asset growth, stakeholders and shareholders receive constant production. If Joint Ventures and subsidiaries are counted, NTPC has 52 power facilities spread around the country, with the most notable being Rammam in the northeast and Kayamkulam in the south.

Corporate Social Responsibility at NTPC

In 1995, before the term "climate change" became a buzzword in sustainability circles, NTPC was the first public utility in our country to adopt the whole "NTPC Environment Policy and Environment Management System." NTPC has also carried out EIA (Environmental Impact Assessment) studies, which were followed by environmental audits. In fact, it was one of the first power companies in India to do an EIA. This environmentally friendly method displays the company's dedication to corporate citizenship.

The culture of CSR penetrates the organisation. People who live near power plants are generally targeted for social assistance, but they are not alone. It has been institutionalised such that it can be checked on a regular basis. The CSR activities of NTPC are centred on water, sanitation, health, and education. Because NTPC's centres are distributed throughout a large geographical region, including as many as 19 states, the government-owned company may effect change on a national scale through CSR.

Communities around its plants are the principal beneficiaries, with supplementary programmes assisting the poorest of the poor. Other CSR programmes, such as Swachh Bharat Abhiyaan and PMSSY, are being implemented to supplement the national government's inclusive growth objectives.

LITERATURE REVIEW

Hohnen and Potts (2007) pioneered the business case for CSR. The writers detailed the implementation of corporate social responsibility. The importance of stakeholder involvement is also emphasised.

According to **Peters and Rob (2010)**, corporate responsibility is a strategic tool for business and society. The authors also outline areas for government involvement and action to promote CR, relevant policy solutions to assist CR, inventive examples of public policy for CR, and practical guidance for developing a CR policy framework.

Chauhan and Dawra (2017) investigated the emerging CSR function of Indian central public sector enterprises. The authors researched public sector business requirements, their evolution, CSR in India, and the role and contribution of central public sector undertakings to CSR in India.

Gupta et al. (2013) studied Corporate Social Responsibility (CSR) in India's Central Public Sector Enterprises (CPSEs). The authors detailed several key social and employee welfare programmes, as well as the participation of CPSEs in these programmes.

Gupta and Arora (2014) investigated corporate social responsibility in central public sector enterprises in India. The purpose of the study was to characterise current corporate social responsibility practises in India's public sector firms. The writers picked five Maharatna and three Navratna businesses as part of their research. This is a descriptive study that yielded a number of theoretical claims that might form the basis for future research on related topics.

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Singh and P. (2018) investigated CSR expenditure by PSUs in India's north-eastern region. In India's shifting commercial climate, corporate social responsibility has gained in importance. To begin CSR programmes, a large number of multinational firms have created Trust and Development Foundations. Even significant corporations began corporate social responsibility activities, eventually forming a full-fledged institute Or organisation committed to social development. The country's corporate houses have steadily boosted their social investment. Tata Group, ITC, Ranbaxy, Infosys, Microsoft, Dr. Reddy's Laboratory, and other large multinational businesses (MNCs) have tried to enhance social order by investing extensively in social development.

Das and Mukharjee (2018) Consider the early consequences of Section 135 of the Companies Act. CSR is not a new concept; in fact, it has been around for quite some time. Previously,

businesses in India may freely give to CSR; however, with the Organizations Act 2013, it was legally included into the business environment and made necessary for those organisations with net worth and earnings beyond a certain threshold level. They should donate 2% of their three-year net profit average. The primary focus of this article is on the CSR activities of a few selected public sector petroleum corporations in India. The analysis relied on the Annual Reports of seven different public-sector organisations.

Sharma et al. (2020) investigated a mining PSU's CSR initiatives, as well as how this firm has transformed obstacles into opportunities by utilising CSR interventions to bridge the gap between the community and the enterprise through stakeholder interaction. This was a qualitative research that included in-depth interviews and focused group discussions with a diverse collection of stakeholders, including CSR workers, partner non-governmental organisations (NGOs), local panchayat members, and beneficiaries. The research was carried out in three unique places by three independent portions of the mining PSU. A gap analysis of the company's CSR agenda design and execution was carried out, and solutions to these gaps were proposed. The research demonstrates three alternative CSR initiatives employed by this mining PSU, from which the elements for success can be derived.

Loura (2014) Studied public sector undertakings' views and conduct (PSUs). CSR identifies and connects significant CSR practises to GRI Standards. The responsibilities of industry and large business entities to society have been met in some way or another since their inception. Prior to formally adopting the CSR term, business behemoths such as Birla and Tata were practising Social Responsibility. The author's intention was to investigate CSR initiatives in public sector organisations in the context of rural development. According to the poll, social responsibility is viewed as a crucial business concern by Indian public sector enterprises regardless of turnover, sector, or goal.

Devee and Karmala (2015) wanted to investigate CSR behaviour at Maharatna PSUs prior to and during the Companies Act of 2013. According to the study, Maharatna businesses have only utilised half of the CSR monies that were allocated to them. Finally, the authors observed that because Maharatna enterprises do not receive government funding, they do not engage in many CSR programmes. Financial incentives should be provided to PSUs to encourage them to participate in more CSR programmes.

Swain (2012) investigated the impact of corporate social responsibility on disinvestment. One of the author's main concerns was how effectively CSR is guaranteed to employees who go on to work for private companies. Furthermore, the author analyses whether private enterprises should be required to adhere to CSR and the concept of public trust. To assist you grasp the subject better, references to various books, journals, periodicals, scientific articles, and resources have been supplied. Corporations that have disinvested cannot simply disregard their obligations to their employees, management, customers, communities, governments, and labour leaders. Disinvestment is commonly assumed to bring in more private money and more effective government management discipline monitoring.

OBJECTIVES OF THE STUDY

The main objective of this research was to achieve a contemporary overview of Corporate Social Responsibility and Sustainable Development of Central Warehousing Corporation. Specifically, it attempted to:

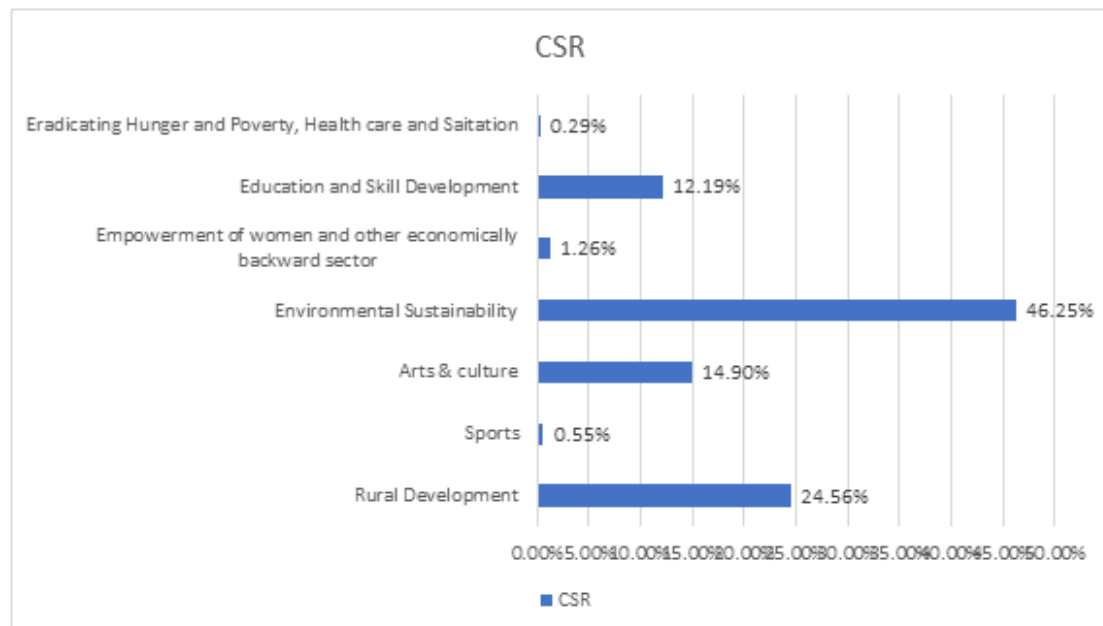
1. To study an overview of NTPC.
2. To study the concept of Corporate Social Responsibility and Sustainable Development.
3. Study the Corporate Social Responsibility and Sustainable Development of National Thermal Power Corporation during the last five years.

METHODOLOGY

The process began with the selection of three or four subjects before deciding on a good topic. National Thermal Power Corporation's Corporate Social Responsibility and Sustainable Development Activities A quick literature review will be maintained based on subjects, and a substantial volume of material on the current topic has been identified. The present study is based on the primary and secondary data resources. On the themes, relevant articles with bibliographies will be noted. A systematic and extensive search for published information on a certain subject, which is frequently the initial step in research. An extensive search for published information on a subject undertaken methodically using all available bibliographic searching methods, with the goal of locating as much existing material on the topic as possible, which is a crucial first step in any serious research study. The methodology of the study to National Thermal Power Corporation's Corporate Social Responsibility and Sustainable Development is based on secondary data derived from internet-based research, review of the literature, direct observation, and a visit to the National Thermal Power Corporation's website.

CSR Policy

"Our CSR-Community Development Policy involves several initiatives from the local unit level all the way up to the national level," Dilip Kumar Patel, Director (HR), NTPC, told The CSR Journal. The CSR initiatives are overseen by our CSR and Sustainability Committee. The NTPC Foundation has launched a number of programmes, including giving IT education to physically and visually impaired kids. To guarantee that these programmes have a long-term influence on the community, we perform a third-party social impact evaluation for all of our key CSR operations every other year."



NTPC strives to go above and above the necessary CSR spend. The CSR policy adheres to the Companies Act of 2013. The CSR efforts are overseen by a CSR and Sustainability Committee. The NTPC Foundation is dedicated to assisting PwDs (people with disabilities) and the marginalised in leading dignified lives. There's a lot to cover, from IT education for the visually impaired to Rehabilitation Centers (DRC) and mobile ambulances.

Exhibit 1**CSR expenditure by NTPC from 2016-17 to 2020-21.**

SN	Year	Allocation (Rs. Cr)	Expenditure (Rs. Cr)
1	2020-21*	278.58	418.87
2	2019-20*	252.68	304.92
3	2018-19*	237.01	285.46
4	2017-18*	220.75	241.54
5	2016-17*	227.85	277.81

(Source: Annual CSR Report 2021)

Apart from the routine CSR activities carried out in connection with the firm's operations, NTPC as an organisation has also offered assistance for some of the significant CSR projects carried out across the country:

INTERVENTIONS FOR COVID-19

Despite the fact that the electrical business is working on multi-year CSR initiatives, COVID-19 relief is a top priority since it is a national problem. "We are committed to supporting the government of India in the fight against Coronavirus," said Dilip Kumar Patel. NTPC contributed Rs 257.50 crore to the PM CARES fund. Furthermore, numerous NTPC plants are spending around INR 21.74 Crores on relief measures."

"Three facilities have been made available for use by state governments to manage COVID cases, at Badarpur in Delhi and medical college hospitals in Sundergarh and Bhadrak, both in Odisha, as part of our efforts to assist state governments in combatting Coronavirus," he added. In addition, about 192 isolation beds with oxygen delivery have been constructed throughout all hospitals/health units, with more beds available on a need basis. Since avoiding the spread of the virus is critical, we've dispatched 1,200 PPE kits, 1,20,000 medical masks, over 33,000 gloves, 5,000 aprons, 8,000 shoe covers, and 535 litres of hand sanitizer to all NTPC centres."

EXTENDING LOCAL SUPPORT

It is also vital to support local government initiatives to halt the epidemic's spread. As a result, the company is making many attempts to help stakeholders, and the site management is assisting local authorities as needed.

NTPC has contributed to the district administration of NTECL Vallur for the procurement of 1,000 hospital bedsheets. Similarly, NTPC Koldam donated 400 masks, 300 sanitizers, and 125 kg bleaching powder to the Mandi district administration. In addition, PVUNL Patratu recently distributed important food goods such as grains and pulses to the district administration Latehar for their common kitchen and distribution to the poor and needy. Rural women have been engaged to create protective cloth masks.

CARING FOR CONTRACT WORKERS

The COVID-19 pandemic, which was followed by the lockdown, had a tremendous impact on contract workers. As a result, NTPC has taken several steps to ensure the well-being and financial stability of its employees. In certain cases, an advance has been made.

Furthermore, quarters are being set aside in other NTPC townships for isolation/quarantine purposes, as well as to provide stay arrangements for contract staff. Because prevention looks to be vital at this time, multiple NTPC facilities have performed preventive and relief activities totaling INR 3.95 crores to far. Members of NTPC's Ladies clubs and other voluntary employee organisations gladly extended their aid by distributing masks and relief goods, as well as making contributions to the PM CARES and CM relief programmes. The management has been encouraging and assisting engineers on the ground to ensure that India receives uninterrupted electricity throughout this period.

EDUCATION

There is no better investment than education. The CSR team is passionate about teaching tomorrow's great young people. It spent INR 132.03 crores on education and skill development programmes last year.

The NTPC Utkarsh scholarship is awarded to 7,300 students each year, ranging from secondary school through engineering and medical school. Students at government schools are inspired to pursue professions in science via mobile science laboratories.

HEALTH

The hospitals created by the electricity corporation around the country provide primary and secondary healthcare services to communities. It offers health-related infrastructure support to PHCs, CHCs, and District Hospitals. For the impoverished in rural and urban slums, NTPC organises medical camps, eye camps, and cancer screenings.

The government-owned company constructed an eye hospital in Dadri, Uttar Pradesh, as well as an operating room at the Bhubaneswar Eye Hospital. Mobile health clinics in eight different locations have serviced almost 1 lakh individuals. The health initiatives reached 2,40,000 individuals in 275 communities.

BIODIVERSITY CONSERVATION

The corporate actually makes no concessions to nature! Climate change and biodiversity are given the same weight as the popular CSR focus areas of "health and education." The NTPC Biodiversity Policy was created in 2018 to conserve, restore, and enhance biodiversity.

The company has established standards to ensure that no power station operations have a negative impact on forests, wildlife sanctuaries, or protected regions; there will be no NTPC thermal plant within a 10-kilometer radius. If a project is permitted or developed before an area is declared as a sanctuary, the team hires a neutral-party scientific institute to conduct an environmental study to determine the impact, if any. One of the environmental CSR activities is the conservation of marine and terrestrial wildlife. One such initiative is the creation of artificial reefs near Simhadri, Andhra Pradesh, where the company has a station. It has cooperated with the Central Marine Fisheries Research Institute to achieve this goal (CMFRI).

Artificial reefs erected along the coast replicate coral beds, offering a safe haven for fish and other marine life. The first deployment was successful last year off the coast of Muthalampalem.

CONCLUSION

The Company's CSR operations comprise acts outlined in Schedule VII of the Companies Act 2013 and the Rules enacted under it that benefit society as a whole. CSR initiatives at the corporation prioritise health, sanitation, safe drinking water, and education. However, the organisation also works on youth capacity building, women empowerment, social infrastructure development, livelihood creation through support for the implementation of innovative agriculture and livestock development, assistance to physically challenged people (PCPs), and environmental sustainability. The company's CSR efforts are concentrated on the immediate neighbourhood of its stations, where its operations are located, ensuring that the majority of CSR funds are spent on local community-benefiting programmes. Several projects, however, are underway around the country to supplement government efforts and promote equitable growth and environmental sustainability. The company's several CSR programmes in diverse areas supported around 450 communities and over 400 schools throughout the year. The company's CSR programmes have had an influence on the lives of around 14 lakh individuals, the vast majority of whom reside in rural areas across the country.

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CUSTOMERS' PREFERENCE AND PURCHASE INTENTION FOR EHV-A (CRITICAL ANALYSIS OF LITERATURE REVIEW)

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ABSTRACT

The main purpose of this paper is to find out important aspects that influence customer preference and purchase intentions of customers' for EHV efficiency and design a model using parametric and non-parametric techniques. The findings are based on the critical review of 58 studies including journals/proceedings, etc. This study suggests the direction for future research and identifies the gap in existing literature with the development of various factors that are very important for EHV study. This study is original and included literature available in various resources, and publication houses like Google Scholar, Mendeley, and various internet (OTI) platforms.

Keywords: Consumer preference, consumer intention, electronic hybrid vehicle, financial factors, and utilities.

1. INTRODUCTION

Inefficient energy use that solely relies on fuels derived from petroleum is primarily caused by transportation. Transport decarbonization is a major obstacle to reducing climate change (Tran et al., 2012). By 2035, transportation is anticipated to account for 50% of global carbon dioxide (CO₂) emissions (McCollum et al., 2018). Light-duty vehicles like passenger cars and compact trucks account for the majority of CO₂ emissions (McCollum et al., 2018, Tran et al., 2012). The use of electric vehicles (EVs) could aid in the decarbonization of transportation by reducing CO₂ emissions (De Rubens et al., 2018; Gnann et al., 2018). As a result, whether the world achieves its CO₂ mitigation goals may depend on the growth in the rate of EV adoption (Adnan et al., 2018). Despite strong government support, the bulk of EV adoption initiatives is falling short of initial goals. Determining and classifying the elements that affect consumers' opinions on EV uptake and policymaking is crucial.

Numerous studies on CAVIE have been undertaken over the past ten years, but none of them has provided a thorough review of the literature on the topic or a meta-analysis of the variables affecting CAVIE. Only 16 studies on CAVIE were evaluated by (Rezvani et al.) in 2015, but they were able to identify several variables that affect CAVIE, including technology, price, the environment, and individual and societal habits. But the psychological factors that influence CAVIE were the only thing the study focused on. (Coffman et al.) (2017) reviewed the factors that influence EV adoption, but they left out the impact of marketing effectiveness and psychological factors like emotions from their analysis. (Adnan et al. 2018) conducted a review of 17 studies that examined consumer behavior predictions for the uptake of electric vehicles (EVs) and plug-in hybrid vehicles (PHEVs). Since the study was only based on planned behavior theory, it didn't take into account all factors that affect EV adoption, such as socioeconomic factors. Even though (Li et al. 2017) looked at 40 papers, they were not able to include all of the variables in the theoretical framework. These variables include rational choice theory, diffusion innovation theory, protection incentive theory, lifestyle theory, and theory of planned behavior. As a result, the study was left unfinished. Additionally, this study does not provide a meta-analysis of previous CAVIE studies. However, this study did not take into account psychographics aspects. (Javid and Nejat 2017)

Proposed an integrated model of regional EV adoption and studied three elements, namely socio-demographic, situational, and contextual. A review of the research on CAVIE that solely

looked at characteristics related to personal habits and choices was published by (Liao et al. 2017). Additionally, this study did not include a meta-analysis of the literature or classification of determinants. In their assessment of 40 studies on the market diffusion model for plug-in electric vehicles (PEVs), (Gnann et al. 2018) looked at key elements for the US and Germany. However, this analysis did not take into account variables like EV range, battery cost, cost of charging infrastructure, etc. The main things that are missing from the literature are the integration and categorization of different aspects, an overview of studies, and how research in this field has changed over time. Widespread awareness of the threat to the green environment for human lives is well known as well as everyone is now conscious and contributing to reducing pollution (e.g. air, sound, chemical, water, etc.) and trying to make a healthy and clean environment. In this direction adoption of EHV (Electric & Hybrid Vehicles) are one of the best options in the automobile industry.

All other industries also trying to contribute to encouraging a green environment e.g. similarly Banking industry forcing to use of paperless retail banking, retail stores promoting paper bags, etc. but researchers believe that only thinking in this direction is not enough. Though we all must come together and do the necessary steps which may create countable change. This research work will be for the betterment of society and enhance the knowledge level of EHV and provide concrete suggestions and solutions to the customers as well as manufacturers. The government has taken initiatives and implemented policies to promote Electric and Hybrid Vehicles. The following contributions are made by this study as a result. First, the integrated framework displays all the causes and effects of EV acceptability as a result of a thorough analysis and assessment of excellent literature used to build the nomological network. Second, we review CAVIE research to identify and classify components to investigate the impact of various variables on EV adoption. This framework will further guide the investigation of CAVIE-related data analysis approaches, theories, and conclusions. Thirdly, we provide a theoretical framework that is a simple-meta-analysis of published research on the CAVIE, including every publishing journal and writer in all significant countries, which will aid in examining the emerging patterns of EV adoption and advantage for academicians. Finally, this study will provide managerial implications that will help manufacturers and policymakers alike comprehend the challenges associated with EV adoption and advise a course of action for the future.

2. LITERATURE REVIEW

Customers' expectation depends on the product to product or services to services. Marketers cannot fully satisfy them just to fulfill their needs/ wants/ requirements, many more things are attached to the product and services. But in general, marketers can identify main attributes i.e. Product Quality, Product Features, Availability of Product, Price of Product, After-Sale services, Maintenance, Cost of the Product, duration to resolve compliance, etc. all these attributes help them to make a buying decision. Here researcher talks about the customers because of the unique feature of the product and feature is a very important key to attracting customers to buy a product in other words we can say feature helps to generate the need of the product in consumers' or buyers' mind. Consumer, Purchaser, Buyer, Customer, and User are sometimes the same at point regarding buying decisions because few factors affect buyer's behavior whether the term could be anything that mentioned above. But markets are keen to know about what customers want and like as well as dislike too. And key factors are demographic attributes e.g. Gender, Income, and Marital status help them to produce the products according to these factors, which helps to increase demand for the product. Many researchers have shared their views on this topic. Few are mentioned here- are EV preference studies conducted (methodology, modeling techniques, and experiment design)? (2) What attributes do consumers prefer when they choose specific vehicles? (3) To what extent do these preferences show heterogeneity? What factors may account for heterogeneity? (4) What

research gaps can be derived from the review and what recommendations can we give for future research? The researcher found that the impact of financial and technical attributes of EVs on their utility is generally found to be significant, including its purchase and operating cost, driving range, charging duration, vehicle performance, and brand diversity on the market. The density of charging stations also positively affects the utility of EVs, which demonstrates the importance of charging infrastructure development in promoting EVs. As for the impact of incentive policies, tax reduction (either purchase tax or road tax) is most likely effective, while there is not yet evidence supporting the effectiveness of other usage cost reductions such as free parking and toll reduction. The findings regarding giving EV access to priority lanes vary for studies conducted in different regions. The preferences for the above attributes are mostly heterogeneous and can partially be accounted for by various individual-specific characteristics.

This paper contributes to improving the understanding of consumer response to EVs by evaluating if consumer innovativeness is related to the expressed preference toward EVs using a UK case study. The concept of consumer innovativeness can be considered to represent the inherent and revealed propensity of a consumer to adopt new products with different or advanced features and functions. Scales used on Innate Innovativeness, Actualised Innovativeness, Electric Vehicle Attitudes, Electric Vehicle Preferences. The research methodology used was based on the attitudinal scales, an exploratory factor analysis (EFA) is conducted to identify the latent variables which exist in the scales. This EFA follows a Principal Component Analysis (PCA) specification (Pearson, 1901; Hotelling, 1933) with Direct Oblimin rotation, with the constructs being identified based on those which exceed an eigenvalue of one. For each construct identified, a factor score is generated using the regression method (Harris, 1967) to allow for each respondent to be assigned a factor loading. For each scale, the KMO measure of sampling adequacy (Cerny and Kaiser, 1977) alongside Bartlett's test of sphericity (Bartlett, 1950) are calculated to consider if the scales are suitable for structure detection. To evaluate the reliability of the factors identified in the EFA, Cronbach's alpha (Cronbach, 1951) is calculated to consider the internal consistency of the grouped opinion statements. The major findings of the study were a cross-sectional approach to measuring actualized innovativeness has several prominent limitations, with the list of household and consumer technology unlikely to be exhaustive of all innovations which can be adopted and with this list containing technologies that are at different stages of their diffusion and with different degrees of market appeal. Similarly, how EV preferences are elicited in this research, through a simple approach of providing information concerning the new propulsion systems and asking for the likelihood of purchase, could bias the measurement of this important issue.

Assessment of electric vehicle repurchase intention: A survey-based study on the Norwegian EV market (Saiful Hasan, 2021) For this study, a web-based questionnaire was developed. The data were collected between March and May 2019. The invitation to participate in the survey was mailed to 4,330 car owners who were drawn from a dataset of randomly selected registered owners of EVs and ICEVs provided by the Norwegian Public Roads Administration. The invitation letter included a web address where they could find the questionnaire. A total of 451 respondents filled out the questionnaire, yielding a response rate of 10.42%. Among them, 278 (62%) participants owned EVs. As this study focuses on satisfaction with EV use and EV repurchase intention, only the questionnaires completed by the 278 respondents owning EVs were used in the analysis. Among the EV owners, there were 256 (92%) BEV owners, 15 (5%) PHEV owners, and only 7 (3%) HEV owners.

The survey was posted to AMT in July 2011, and was terminated when 1000 participants, all of whom stated US residency and a minimum age of 18 years, had completed the survey. To encourage completion, the survey was administered in four parts, with a bonus provided as an incentive for completion of the entire survey, for a total of \$2 per participant. The AMT survey

comprised 105 questions divided into six sections, 77 of which were ordinal multiple-choice style (e.g., not at all, a little, somewhat, a lot, this was a predominant factor). Unlike a standard Likert scale in which the interval between categories is assumed to equal, we analyzed these data using logistic regression under the more conservative assumption that these response variables were ordinal.

BEV adoption is likely to be influenced by four main factors: the prevalence of BEV charging infrastructure, TCO, vehicle characteristics, and the preferences and attitudes of consumers (Coffman et al 2016, Liao et al 2017, Singh et al 2020).

Structured questionnaire, different authors suggested a sample size of 100 or 200 (Boomsma, 1985), 5 or 10 observations per estimated parameter (Bentler & Chou, 1987; Bollen, 1989), and 10 cases per variable (Nunnally, 1967) as different thumb rules. This article has 214 valid filled responses. The selected respondents were existing car owners. They were residents of the National Capital Region (NCR) Delhi, Mumbai, and Pune. Out of the 450 respondents approached, 214 responded. There were no missing data, and the responses were valid. (A Study on the Adoption of Electric Vehicles in India: The Mediating Role of Attitude (Anil Khurana, V. V. Ravi Kumar, Manish Sidhpuria), 2019)

3. FRAMEWORK FOR THE STUDY

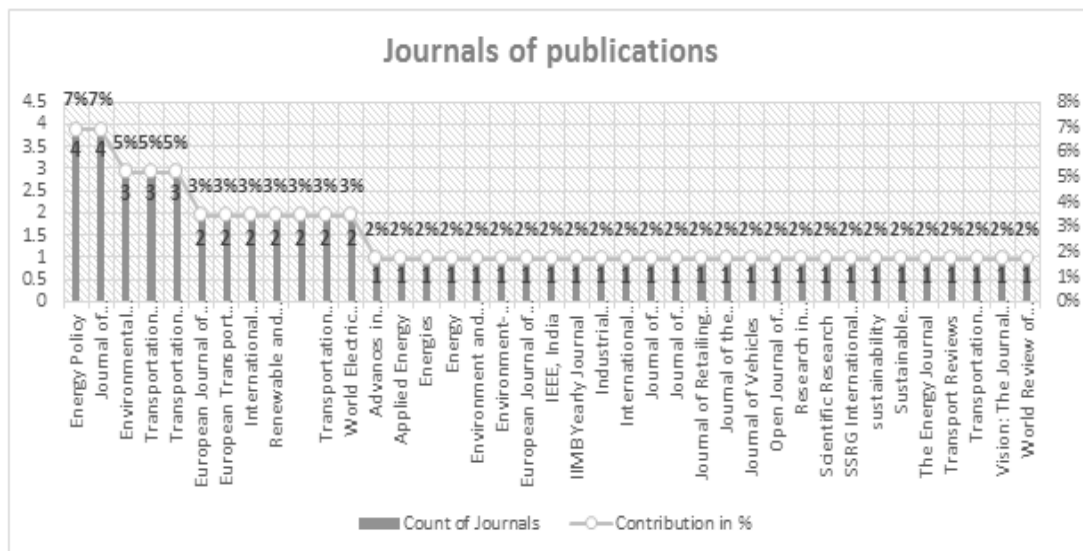
Factors affecting Consumers' buying behavior, Utilities and Features of Electronic Hybrid Vehicle

3.1 Journals Publishing Related Studies

In the current study, researchers have reviewed 58 studies, published in various international journals, conferences, books, thesis, and working papers. A comprehensive snapshot of 58 reviewed studies is given in Table I at the end of the paper and all other analyses, tables, and figures are structured based on Table I. The segregation of existing studies from various sources is given in Table I. as mentioned in Table I, the most frequent sources of publications are The Energy Journal (4), Journal of Sustainability (4), Environmental Science and Pollution Research (3), Transportation Research (3), Transportation Research Part A: Policy and Practice (3), European Journal of Scientific Research, European Transport Research Review, International Journal of Sustainable Transportation, Renewable and Sustainable Energy Reviews, The Scientific World Journal and so on (number of publications in respective journals are mentioned below in diagram). The reviewed studies also include international conference papers, available on the internet website, while the others present the thesis, working papers, and journals on Electric vehicles and consumers' preferences and purchase intentions.

Journal Name	Count of Journals	Contribution in %
Energy Policy	4	7%
Journal of Sustainability	4	7%
Environmental Science and Pollution Research	3	5%
Transportation Research	3	5%
Transportation Research Part A: Policy and Practice	3	5%
European Journal of Scientific Research	2	3%
European Transport Research Review	2	3%
International Journal of Sustainable Transportation	2	3%
Renewable and Sustainable Energy Reviews	2	3%
The Scientific World Journal	2	3%
Transportation Research Interdisciplinary Perspectives	2	3%
World Electric Vehicle Journal	2	3%
Advances in Electronic and Electric Engineering	1	2%

Applied Energy	1	2%
Energies	1	2%
Energy	1	2%
Environment and Natural Resources Journal	1	2%
Environment-Behaviour Proceedings Journal	1	2%
European Journal of Molecular & Clinical Medicine	1	2%
IEEE, India	1	2%
IIMB Yearly Journal	1	2%
Industrial Marketing Management	1	2%
International Journal of Management, Technology And Engineering	1	2%
Journal of Advanced Transportation	1	2%
Journal of Marketing Management	1	2%
Journal of Retailing and Consumer Services	1	2%
Journal of the Social Sciences	1	2%
Journal of Vehicles	1	2%
Open Journal of Business and Management	1	2%
Research in Transportation Business & Management	1	2%
Scientific Research	1	2%
SSRG International Journal of Mechanical Engineering	1	2%
sustainability	1	2%
Sustainable Development	1	2%
The Energy Journal	1	2%
Transport Reviews	1	2%
Transportation Research Part D: Transport and Environment	1	2%
Vision: The Journal of Business Perspective	1	2%
World Review of Intermodal Transportation Research	1	2%
Grand Total	58	100%

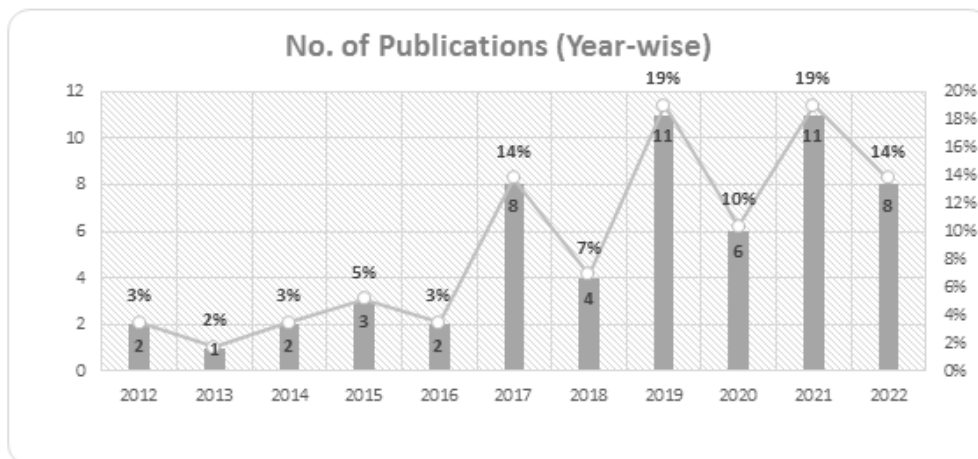


3.2 Publications Each Year

In our survey researchers have included studies from the year 2012 to 2022. Year-wise classification of reviewing studies is given in Table II. Figure 2 shows the diagrammatic view of the year-wise publication of existing literature from the year 2012 to 2022. The number of

publications was higher in the years 2019 (nos. 11) and 2021 (nos. 11). That was the time of the pandemic and the whole world was working in different mental statuses and financial crises. Though we can see the number of publications increased year to year from 2012 to 2021 respectively. It shows awareness towards electric/hybrid vehicles worldwide.

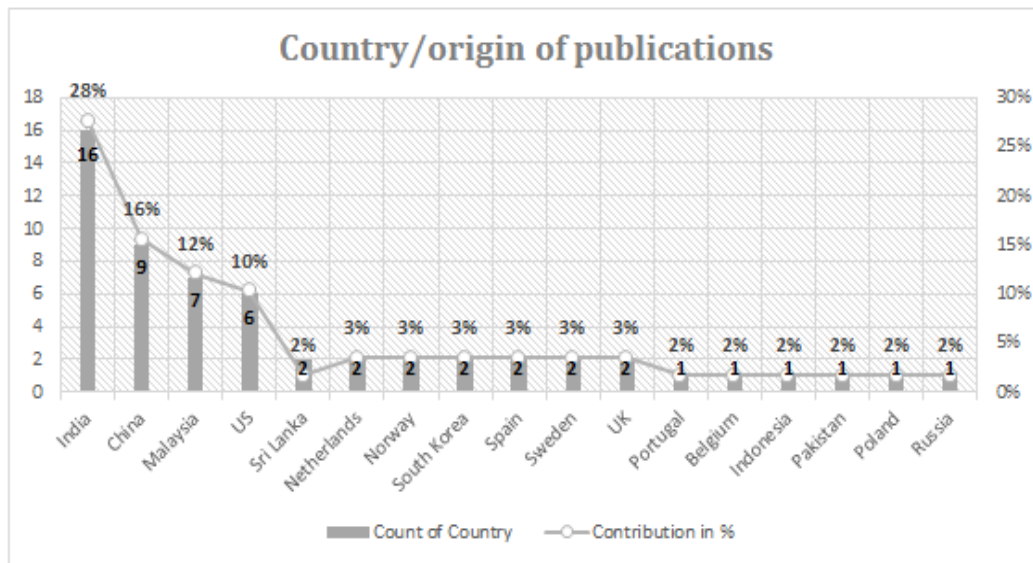
Year	Count	Contribution in %
2012	2	3%
2013	1	2%
2014	2	3%
2015	3	5%
2016	2	3%
2017	8	14%
2018	4	7%
2019	11	19%
2020	6	10%
2021	11	19%
2022	8	14%
Grand Total	58	100%



3.3 Country Wise Publications

Further, the researcher classified the survey of literature based on research studies conducted in the country wisely. Table III provides clear figures regarding country-wise research studies in the current review of the literature. A review study conducted in various countries, as well as a cross-country analysis, was done by the researchers. Researchers conducted a good number of studies in European countries, studies were based on battery back-up, the technology used, charging points, etc. Figure 2 shows the country-wise publication of literature. A good number of studies were conducted in the four-wheeler/ car manufacturing industry of developed nations like the USA, the UK, and Europe. Developing nations are also gaining the attention of researchers as within India only, 16 studies were conducted by eminent researchers during the pre, post, and during COVID period of the Indian Automobile sector (Praveen Kumar, Kalyan Dash 2013, Pretty Bhalla, Inass Salamah Ali, Afroze Nazneen 2019, Rabindra Jena 2020, Abhijeet K. Digalwar, Rohaan George Thomas, Arpit Rastogi 2021). It depicts the popularity of frontier techniques in developing country research. Studies on Customers' preferences and purchase intentions for EHV in developed nations like the USA, the UK, and Europe are gaining new dimensions with the new concepts of consumer preference and purchase intention, etc. but in nations, there is a lack of literature on these new paradigms regarding Electronic Hybrid Vehicle.

Country	Count of Country	Contribution in %
India	16	28%
China	9	16%
Malaysia	7	12%
US	6	10%
Sri Lanka	2	2%
Netherlands	2	3%
Norway	2	3%
South Korea	2	3%
Spain	2	3%
Sweden	2	3%
UK	2	3%
Portugal	1	2%
Belgium	1	2%
Indonesia	1	2%
Pakistan	1	2%
Poland	1	2%
Russia	1	2%
Grand Total	58	100%



3.4 Tools and techniques used

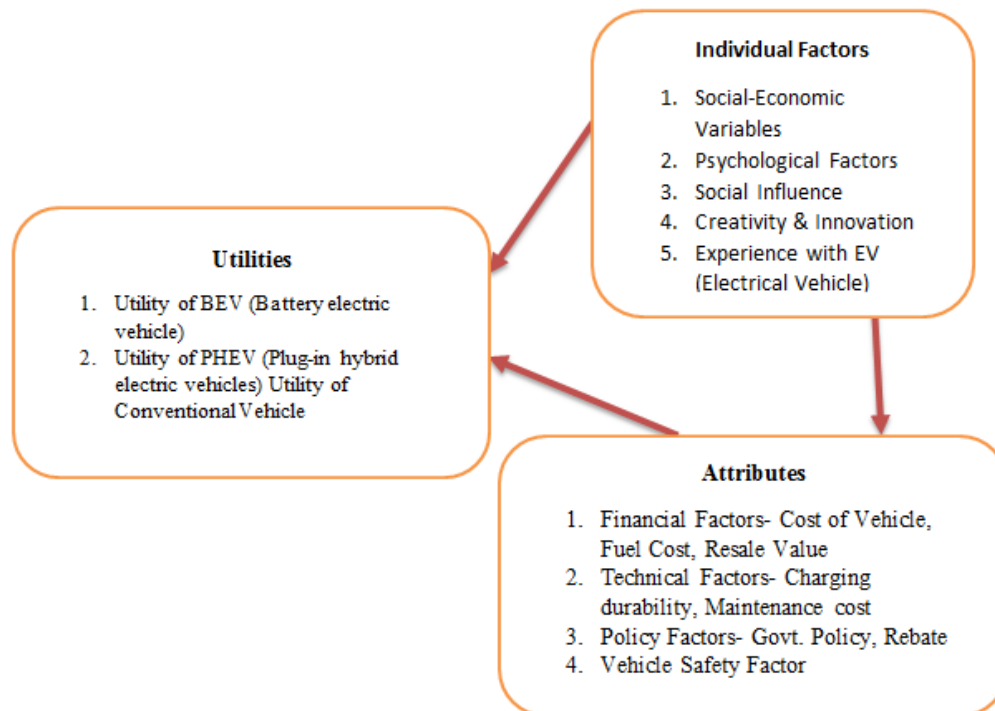
This section presents a conceptual flow chart of studies and a break-up of literature based on the focus areas of consumers' preference and purchase intention for electronic/hybrid vehicles. Table IV represents the focus areas of reviewing studies. Most of the studies are focusing on factors affecting consumers' buying behavior and purchase intention of consumers on their determinants (29) (the figure given in several publications in the focus area of research i.e., consumer preference, purchase intention, personal norms, etc.) new emerging areas in the field of an electric and hybrid vehicle as well as consumer preference for buying such vehicles that help to the industrialist to know more about consumer's expectation for EHV and consumers' intentions too. The future direction of research is emerging with the concept of Perceived Compatibility, Perceived Complex ability, and Planned Purchase Behaviour.

Tools / Techniques	Count of Tools/Technique	Contribution in %
Structural Equation Modeling (SEM)	15	26%
Regression	10	17%
others	9	16%
Review Paper	8	14%
Factor Analysis	6	10%
Bibliometric Analysis	4	7%
Case-based analysis	3	5%
Correlation	3	5%
Grand Total	58	100%

Figure 4 diagrammatically shows the distribution of focus areas of reviewing studies. It shows the break-up of literature in focus areas given in Table IV. “A” represents the studies in the focus area of consumers preference and purchase intentions, and “b” depicts the studies with the empirical evidence on determinants of consumer preference and purchase intention. “c” shows the effects of factors that affecting consumer preference and purchase intention, “d” describes studies in technology used in electric and hybrid vehicles, “e” denotes studies on the changes in purchase intention due to demographic attributes, “f” presents the studies on preference and purchase intentions, “h” describes studies on literature surveys whereas, “i” denotes studies on future research areas.

4. CONCEPTUAL MODEL

This model helps to understand the relationship between the reasons behind buying decisions of EHV by the customers and factors that affect their purchase intentions.



CONCLUSION

This study critically review and analyze 58 research papers, government reports, and conference proceedings published across the world from **2012 to 2021**, based on such studies a conceptual model and framework are developed for the analysis to know about consumers' preference and purchase intention for the product EHV based on data development technique. The result of the

study very categorically pointed out government incentives; customer attitude and intrinsic motivation are very important factors affecting purchase intentions of customers. The Vehicle fuel efficiency, low maintenance cost, future proof technology and safety risk have also proved to be significant affecting factors. These findings are based only on the critical review of 58 studies. This study suggests the direction for future research and identifies the gap in existing literature with the development of a conceptual model.

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EFFECT OF 12 WEEKS AQUA AEROBIC TRAINING ON SELECTED PHYSIOLOGICAL PARAMETERS OF MIDDLE AGE WOMEN

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ABSTRACT

Purpose: The main purpose of this study was to investigate the effect of 12 weeks aqua aerobic training on selected physiological parameters of middle age women of Manipur.

Selection of subjects: For the present study 40 women from Kakching Mayai Leikai, kakching district, Manipur were selected randomly as the subjects for the study. The age of the subjects ranged between 35-45years.

Selection of variables: The variables selected for the present study were aqua aerobic training (independent variable), Peak flow rate (PFR) and Resting heart rate.

Methodology: For the study pre test - post test randomized group design, which consists of experimental group (20 female) and control group (20 female) was used. The data were from the pre test and post test of both groups were collected before and after the aqua aerobic training program.

Statistical technique: For comparing pre test and post test means experimental and control groups of selected physiological parameters, descriptive analysis, paired sample t-test and analysis of co-variance (ANCOVA) were used, the data analyzed with the help of SPSS (20 version) software and the level of significance was set at 0.05 level of confidence.

Result: There was significance difference between the pre and post test means comparison of peak flow rate(PFR) and resting heart rate(RHR) for the experimental group as the obtained 't' = 10.04 is greater than the tabulated 't' = 2.093 at 0.05 level of confidence. However insignificance difference was found for the control groups pre and post test means comparison of peak flow rate (PFR) and resting heart rate (RHR) as the calculated 't' = 1.39 is lesser than the tabulated 't' = 2.093 at 0.05 level of confidence. Further by employing the ANCOVA, the significant effect was found as the calculated 'F' = 12.88 is greater than tabulated 'F' = 4.08 for peak flow rate (PFR) and found the calculated 'F' = 98.17 is greater than tabulated 'F' = 4.08 for resting heart rate

(RHR) for the aqua aerobic training on peak flow rate and resting heart rate of middle age women of Manipur.

Conclusion: The study was concluded that 12 weeks aqua aerobic training program might be responsible for the improvement of selected physiological parameters like peak flow rate (PFR) and resting heart rate (RHR).

Keywords: Aqua Aerobic Training, Physiological Parameters, Resting Heart Rate , Peak Flow Rate.

1. INTRODUCTION

Swimming is a healthy activity that one can continue for a lifetime. It is a low impact activity that has many physical and mental health benefits. In general, Aqua aerobic is a great exercises option for people of all ages, but can be especially useful for seniors or those with the joints concerns. In addition to being low-impact and improving overall fitness , aquatic exercises support cardiovascular health. Aqua aerobics can provide many of the same health benefits as land –based cardiovascular exercise, like a reduction in blood pressure, a reduction in LDL and

total cholesterol, and increase in HDL cholesterol (known as “good cholesterol”), particularly when practice consistently and combined with other lifestyle modifications.

Aerobic activities in water have been found to be effective to improve aerobic fitness (2). Aquajogging has been applied as a joint sparing intervention in rheumatologic diseases such as osteoarthritis, in the pre and postoperative management of musculo-skeletal disease, and as an endurance and power training in cardiorespiratory disease (3). Aqua aerobic exercises are beneficial in so many ways like strengthening the respiratory muscles, strengthening and enlarge the heart muscle and improve its pumping, improving blood circulation and red blood cells, reducing stress and depression, increasing your stamina and endurance of your muscles, in short it reduces the risk of heart attacks. Peak flow rate refers to the maximum velocity of expiration. Because peakflow rate can quantitatively represent the state of airway stenosis, it is often used as a long-term measurement for bronchial asthma patients with chronically obstructed breathing. (4)

Previous studies have shown that aquatic exercises more effectively improve respiratory function by increasing forced expiratory volume 1% than land-based exercises. (6,7,8) This is because ventilation. Volume&during aquatic exercises is significantly restricted by high water pressure. Thus, the study was conducted to find out the changes brought from 12 weeks aqua aerobic training in middle age women of Manipur.

2. OBJECTIVE OF THE STUDY

To find out the effect of 12 weeks aqua aerobic training on selected physiological parameters i.e Peak flow rate(PFR) and Resting heart rate(RHR).

3. METHODOLOGY

3.1 Selection of Subjects.

A total of 40 women were selected randomly as subjects from Kakching Mayai Leikai, Kakching, District. Manipur.India. the subjects were randomly assigned into two equal groups, experimental group (n=20) & control group (n=20). The age groups of the subjects selected were between 35 to 45 years.

3.2 Selection of Variables

The researcher chose the following variables for the current investigation while keeping the feasibility criterion in mind:

1. Aqua aerobic training (independent Variable)
2. Physiological variables (Dependent Variables)
 - a. Peak Flow Rate (PFR)
 - b. Resting Heart Rate (RHR)

3.3 Criterion Measures

- i. Peak flow rate was measured by contact SP70B dry spirometer and recorded in milliliters.
- ii. By lightly pushing on the radial artery and using a stopwatch, the resting heart rate was measured & recorded in numbers for one minute

3.4 Experimental Design

It was experimental pre test & post test control group design. The experimental group participates in aqua aerobic training while control group did not participate in any training program rather they involved in their daily routine program. Both groups measurement was taken twice as before & after the 12 weeks aqua aerobic training to determine the effect of aqua aerobic training on selected physiological parameters i.e peak flow rate and resting heart rate among middle age women of Manipur.

3.5 Collection of Data

Prior to administrating aqua aerobic training. To collect pre test data, the experimental group as well as the control group were given the selected physiological parameters. After the completion of 12 weeks of aqua aerobic training again the same tests were conducted to collect the post data. The subjects received the necessary instructions prior to the test administration.

3.6 Administration of Training

The training for experimentary group was administered at Kha Manipur College, Kakching, Manipur. Selected aqua aerobic training were given to experimental group on five days a week for 12 weeks. Each training , session Consisted of 45mins. Included 5mins of warming up & 5mins cooling down . Remaining minutes assigned for aqua aerobic training program.

Table 1: Aqua aerobic Training program

Aqua Aerobic Exercises/ training Control	No. of circuit
The Main Training(30mins)	
Aqua jogging	
Flutter Kicking	
Leg lifts	4(1-4 weeks)
Standing water push up.	5(5-8 weeks)
Alternating Scissor jump	6(9-12 weeks)
Kick Your	
Tuck Jump	
Chest fly	
Splash the water	
Cross punches with hip rotation	
Front Kick, back Kick & jogging	
Alternate front Kick Back Kick & rotate whole body	
Butterfly beat (clap)	
Punches	
Jumping jack in the pool	

3.7 Statistical procedure

The data were analyzed by applying descriptive statistical, paired sample 't' test and analysis of Co-Variance, ANCOVA . The level of significance was set at 0.05 with the use of the SPSS(20 version) software, which also helped evaluate the data.

4. RESULTS AND FINDINGS OF THE STUDY

The Mean(M), Standard Deviation (SD) and Standard Error Mean (SEM) were calculated by using the Descriptive Statistic, Paired Sample 't' test was applied to find out the mean difference between pre test and post test of peak flow rate(PFR) and resting heart rate(RHR) for both experimental and control groups. The data were further examined by applying the analysis of Co- Variance (ANCOVA) to find out the significance difference among the pre and post test means of peak flow rate(PFR) and resting heart rate(RHR) between the experimental and control groups. The level of significant was set at 0.05.

The mean (M), standard deviation and paired sample 't' test of pre and post test of peak flow rate (PFR) and resting heart rate for experimental group was presented in the table 2.

Table no.2

The Descriptive and Paired Sample t-test of Peak Flow Rate (PFR) and Resting Heart Rate (RHR) for Experimental Group.

Variables	Test	N	Mean	SD	SEM	df	t	P
Peak Flow Rate	Pre	20	4.15	.98	.23	19	-3.26	.004
	Post	20	4.68	.65	.15			
Resting Heart Rate	Pre	20	79.15	5.63	1.25		10.04	.000
	Post	20	72.50	5.38	1.20			

*significant at 0.05, where tabulated t (0.05) (19) = 2.093

Table no.2 clearly revealed that there were found the significant improvement in peak flow rate (PFR) and resting heart rate (RHR) for the experimental group as the Mean (M) and standard deviation (SD) of pre and post test for peak flow rate (PFR) were = $4.15 \pm .98$ and $4.68 \pm .65$ respectively, 79.15 ± 5.63 and 72.50 ± 5.38 for resting heart rate (RHR) and found the calculated 't' for peak flow rate (PFR) is -3.26 and 10.04 for resting heart rate which were greater than the tabulated 't' = 2.09 at 0.05 level of Confidence for two tailed test ($P < 0.05$) after the 12 weeks of aqua aerobic training.

The mean (M), standard deviation (SD) and paired sample 't' test of pre and post test of resting heart rate and peak flow rate for control group is shown in the table no.3

Table no.3

The Descriptive and Paired Sample 't' test of Peak Flow Rate and Resting Heart Rate for Control Group.

Variables	Test	N	Mean	SD	SEM	df	t	P
Peak Flow Rate	Pre	20	4.25	1.05	.24	19	1.43	.17
	Post	20	4.27	1.08	.26			
Resting Heart Rate	Pre	20	81.25	3.08	.69		1.39	.18
	Post	20	80.60	2.55	.57			

*Insignificant at 0.05, where tabulated t (0.05) (19) = 2.093.

On the above table no.3 it has been revealed that the mean (M) and standard deviation (SD) of pre and post test of peak flow rate for the control group were 4.25 ± 1.05 and 4.27 ± 1.08 respectively, and 81.25 ± 3.08 and 80.60 ± 2.55 for resting heart rate and found the calculated 't' for peak flow rate (PFR) is 1.43 and 1.39 for resting heart rate (RHR). Therefore, there were the insignificant improvement on peak flow rate and resting heart rate of middle age women of Manipur for the control group as the calculated 't' is 1.43 and 1.39 which were lesser than the tabulated $t = 2.093$ at 0.05 level of confidence $P > 0.05$ for the two tailed test.

Table No.4

Pre and Post Mean Comparison of Peak Flow Rate and Resting Heart Rate between Experimental and Control Groups (ANCOVA)

Variables	Source	Type III Sum of Square	df	Mean Square	F	P
Peak Flow Rate	Group	462.311	1	462.311	98.17*	0.01
	Error	174.240	37	4.709		
	Total	237881.00				
Resting Heart Rate	Group	2.596	1	2.596	12.88*	
	Error	7.456	37	.202		
	Total	829.557				

*Significant difference at 0.05 level of confidence, where tabulated $F(0.05) (1,37) = 4.08$.

Table no. 4 reveals that there was significant difference among the pre and post test means of peak flow rate (PFR) and resting heart rate (RHR) between experimental and control group as the obtained critical 'F' = 98.17* and 12.88* were greater than the tabulated 'F' = 4.08 at 0.05 level of confidence.

DISCUSSION OF FINDING

From the above results and the findings, reveal the presented in **Table2**. The results of the paired sample t- test had shown that there was the significant difference between the pre and post test means of peak flow rate (PFR) and resting heart rate (RHR) for the experimental group as the obtained 't' = -3.26 and 10.04 was greater than the tabulated 't' = 2.093 at 0.05 level of confidence. There was the insignificance difference between pre and post test means of peak flow rate (PFR) and resting heart rate (RHR) for control group as the calculated 't' = 1.43 and 1.39 was lesser than the tabulated 't' = 2.093. further, by employing the analysis of covariance (ANCOVA), it was revealed that there were significant differences among the pre and post test means comparison between the experimental and control groups as the obtained critical value of peak flow rate (PFR) 'F' = 98.7 and 12.88 for resting heart rate which was greater than the tabulated 'F' = 4.08 at 0.05 level of confidence. Therefore, it was proved that 12 weeks aqua aerobic training were effective for the improvement of peak flow rate (PFR) and resting heart rate (RHR) of middle age women of Manipur.

CONCLUSION

In the light of the findings, it was concluded that twelve week aqua aerobic training helped in improving Peak Sflow rate (PFR) and resting heart rate of middle age women of Manipur. The reasons might be due to the selection of subjects, training means, load and intensity and active participation of subjects. More over the training design and duration might be changed for different purposes.

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EFFECT OF COGNITIVE DETERMINANTS ON DECISION MAKING WITH SPECIAL REFERENCE TO ENTREPRENEURIAL INVESTMENTS AND SOCIAL ENTREPRENEURSHIP

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ABSTRACT

Investment decisions are highly affected by the unduly non-measurable biases. We can't underestimate it because it affects a lot to the investors mind. In this paper we will be emphasized on the biases and their effect on the investment decisions of the entrepreneurs. We will understand the biases and why they are relevant and how they can be overcome. We will be describing the effects of these biases on the decision making of entrepreneurs, when they took decision some of these biases reframe their cognition process and because of that the decision turns out to be something different. All these things we will see in this paper. What is the reason of these cognitive biases and what are the ways out that can be used to overcome these biases?

Keywords: entrepreneurial investors, decision making, management, cognitive biases

STATEMENT OF PROBLEM

Traditional theory and all the previous researches says that investors are rational and they think in a similar manner, But when we go through the previous research paper and all the research done very less work has been done in the field of cognitive interference in the decision making of investors. All the previous research considers that the information with the investors is same and they are using the information in a proper way because of that the market is perfect and everyone is aware of all the facts and figures. As per all the previous research it is being said that investor always behave in a rational way but this behavioral finance has cleared the scene and come up with bounded rationality which ultimately leads to the irrationality and what is the reason of the irrationality has been studied by some researchers but the question is still not answered in a proper way.

INTRODUCTION

As we all are aware that behavioral finance is a new concept and a new approach which is combination of both the traditional finance and psychological factors which affect the ultimate decision making of the entrepreneurs in the investment decisions. Psychological factors which are known as cognitive biases are factors that interfere in the ultimate decision making of the entrepreneurs. These include overconfidence, anchoring, availability, framing, status quo etc. which in one way or the other way affect the decisions of the entrepreneurs. Emotional errors are being committed by the entrepreneurs because of certain factors like we take an example:- suppose Mr. A has to go to Goa from Delhi after two days and he has booked air tickets of certain airline but today there is plane accident of same airline, So there is a huge probability that he will not go by that mode e.g. airplane mode. But there is no logical reason behind it because if we take logical figures there is more than 1000 times chances of accident in road journey as compare to air journey. Because of these biases we take immediate decisions without thinking a lot and logically, we may say that some decisions are being taken by the entrepreneurs which are not backed by any logic. Let's take another example in a hotel in USA there was a trend to play German music three days a week and Spanish in remaining three days, it was the observation that without any logical backup there was a trend in the hotel that on the day German music was played, the sale of German wine was on the peak while on the other hand when Spanish music was played the sale of Spanish wine was on the peak. So, there are lot of cognitive patterns that develop in our mind because of that we take such decisions which are

really not backed by any logics. Because of anxiety sometimes entrepreneurs take illogical decisions which is in reaction to some outer world happenings.

So, these are some of the irrational behavioral patterns which should be studied in a deeper prospective to find out their cause and the solutions of all these. Risk preferences are being decided by these cognitive patterns, it is a thing that matters a lot for any individual. Bounded rationality was the base of all the previous researches conducted and they had the view that rationality is inculcated in all human beings. But on the other hand, if we see from the perspective of behavioral finance many researchers like Oechssler, Roider and Schmitz (2008) had thrown light on the aspect of relationship between the cognitive ability and decision making of any individual. When we talk about the cognition regarding the decision making, it is related to the future return expectations and the past experiences which ultimately with the inclusion of biases become so complicated and the final decision comes out to be different. Forecasting and predicting of the future up and down of the market is highly related to the combinations we form in our mind regarding decision making after clubbing all the aspects related to it. Economic preferences of a human being is also related to the cognitive patterns of mind and all these patterns which are not rational are very difficult to read and to be studied.

Behavioral Finance	
<u>Efficient Market Finance</u>	<u>Behavioral Finance</u>
• Investors are rational. • Even if some investors are not rational, irrationality does not occur collectively. • Prices are correct; equal to intrinsic value. • If prices are not right, mispricing will be easily eliminated via sharp-eyed arbitrageurs.	• Investors don't behave rationally. • The collective irrationality of these investors leads to an overly optimistic or pessimistic market situation. • This situation cannot be corrected via arbitrage by rational, well-capitalized investors.

BOUNDED RATIONALITY

Bounded rationality has three facets which revolve around cognitive limitations, information imperfections and time constraints. When we see it in detail bounded means it has limits because of first our cognitive ability according to our capability to logically think and decide. Secondly information which we have may be complete or not. We have relevant information or irrelevant information; all these comes under the second parameter of bounded rationality. Last but not the least the final what is the available time to take decision also affects the decision which we take regarding particular domain, So all these three aspects comes under bounded rationality because of which investors has limited rationality and unlimited irrationality in the area of horizon. Because of bounded rationality there exist some errors in ultimate decision making of the investors, these three errors can come under three domain cognitive, emotional, and social. First and foremost, aspect is to find out the effect of these biases on the investment decisions and secondly how these can be overcome. It can be stated as behavioral gap which is basically between the expected decision that has to be taken and the actual decision which has been taken by the investor. "Investing isn't about beating others at their game. It's about controlling yourself at your own game." (Jason Zweig, a columnist for The Wall Street Journal).

LITERATURE REVIEW

(Cueto, 2013) The research is related to a review of the literature on behavioural biases in entrepreneurial decision-making. After conducting the research, the researchers concluded that biases such as overconfidence framing, illusion of control, and availability are all important in the field of entrepreneurial decision making, and that more empirical research is needed to determine the exact impact of these biases on entrepreneurial decisions.

(Kanojia, Singh, & Goswami, 2018) The impact of behavioural biases on final decision making was discovered in this study. The variables in this study were mood, culture, representativeness, and herd biases. A standard questionnaire was created, and a sample size of 602 was chosen using the researcher's formula for calculating sample size: $n = z^2 p (1-p) / e^2$. The present study used a one-sample t-test and anova to determine the mean differences between the various samples. The findings suggest that biases can have a significant impact on investment decisions based on test results, with representative bias having the greatest impact compared to herd bias, which has no impact on the investor's investment decision. It is suggested that this study be expanded to other parts of the country with more variables and different test statistics.

(Ngoc, 2013) The purpose of the study was to see how behavioural biases affect stock market investors. The variables in this study were herding, market, prospect, overconfidence-fallacy, gambles and anchoring-ability bias. The survey used a total of 18 statement questionnaires, and exploratory factor analysis was used to determine factor loading, as well as the KMO and cron back alpha tests to ensure reliability and validity. The findings of this study show that three factors are the most dominant out of a five-factor study, the effect of each factor is discussed, and a study with a larger sample size is suggested in the conclusion section. Further research in this area is recommended to gain a different perspective, and there is a need for research in this field.

(Rupinder Kaur Gill , Rubeena Bajwa, 2018) Prospect theory, loss aversion, herd behaviour, mental accounting, overconfidence and underreaction, and self-control are the primary factors that have been explored in this particular study. This research included 30 national and international studies, with the findings indicating that all of the studies are solely focused on the consumer behaviour model. The studies lack a behavioural finance approach orientation, which uses behavioural aspects as a foundation for model building. Regarding the behavioural finance theory element, more research has been advised.

(Kumar & Goyal, 2015) In this study, a systematic literature review of all previous studies was conducted. The main goal of this research is to identify a big gap in the field of behavioural finance, specifically in the area of four biases that were investigated. The author has used the SLR method of LR. The lack of empirical research has been highlighted by the paper's author. This study covers the period of LR from to (1980-2013). According to the author, this is the first SLR paper to be published; all earlier papers were not conducted using the SLR approach of literature review.

(Muradoglu & Harvey, 2012) This is a unique study that discussed the benefits and necessity of working in the behavioural finance discipline. Not only that, but the publication also discussed how to determine the greatest outcomes in your research. It has been acknowledged that the greatest technique to read a respondent's psychological element is through experimenting. And the methods that the researcher has given are as follows:

1. Survey method via questionnaire
2. One-on-one interviewing
3. Participant feedback and observations

(Metawa, Hassan, Metawa, & Safa, 2019) The purpose of this study is to determine the effects of demographic parameters such as age, gender, education level, and experience, as well as behavioural aspects such as sentiment, overconfidence, overreaction and underreaction, and herd behaviour, on investors' final investment decisions. The research was done using a structured questionnaire, and the respondents were individual investors, with a sample size of 384. The study was carried out in Egypt. According to the conclusions of this study, an investor's age, education, and gender have a substantial impact on their final investment decision.

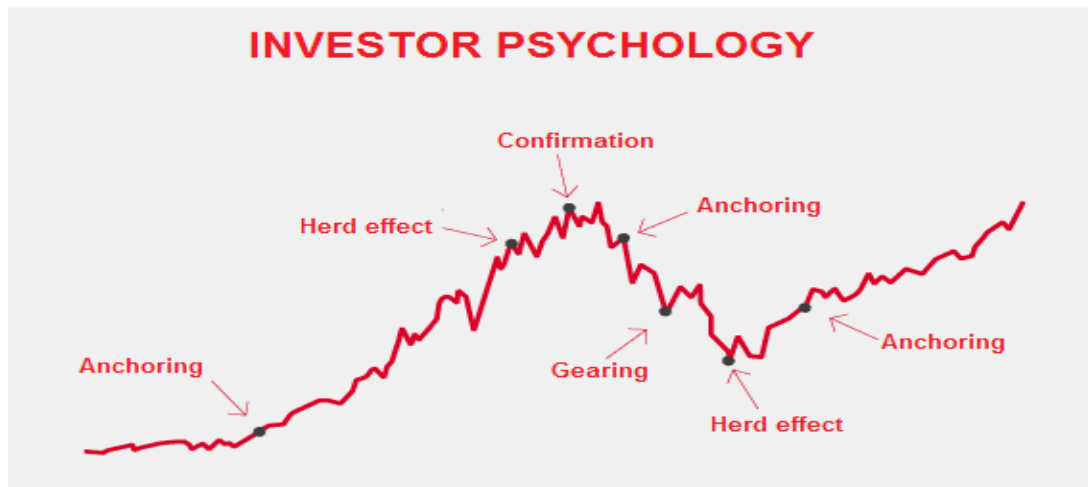
(Aren, Aydemir, & Şehitoğlu, 2016) The research focuses on the literature in the field of institutional investors in behavioural finance, with the primary goal of the researcher in this work being to identify gaps in the fields of home bias, disposition impact, and herding behaviour. Using the juxtaposing technique of doing a literature review and identifying specific areas where gaps and additional research are needed, the article from the period of 2005 to 2014 was chosen as the main topic of this study. The findings of this article revealed that the disposition effect has no substantial impact on the investors' decision-making, as determined by confidence and experience in this study. With the two main components of culture and information, home bias has been recognized as a crucial variable affecting institutional investors. Herding behaviour, which has been investigated using career and reputation considerations, has been found to have an impact on institutional investors. New variables and a different respondent sample have been recommended for future studies in the subject of behavioural finance.

(Baker, Kumar, Goyal, & Gaur, 2019) The study's goal is to investigate the relationship between demographic characteristics and financial literacy and behavioural biases. In this study, an appropriate questionnaire was employed on a sample size of 500 respondents, and one-way analysis of variance (ANOVA), factor analysis, and multiple regression analysis were the tools used. The following are the study's major findings: -

1. The study found that behavioural biases and demographic variables worked together to influence investment decisions.
2. Based on a literature assessment, the study concluded that financial literacy has never been studied before by researchers and has a substantial impact on final decision-making.
3. The study found that overconfidence and herding have a positive impact on investing decision-making.

(Pandey & Jessica, 2018) The focus of this study is entirely on real estate investors and the impact of behavioural biases on their investment decisions. To obtain a sample size of 560 respondents, multi-stage stratified sampling was performed, and the IRT technique of psychometric testing was used to arrive at a result. In this study, a 14-scale questionnaire was created and used in conjunction with CFA and the AMOS software. The research paper's main finding is that anchoring bias, representational prejudice, and availability bias have a considerable impact on real estate investors.

Behavioral Biases at a Glance



Anchoring is first and foremost bias that comes into the scenario when we talked about the behavioral finance. According to this bias once we have given a clue from the outside world or from inside mind then the decision that will be taken by a person will totally depending on the anchor which has been given to him. In a study that has been done in UK in this average height of the bamboo tree has been asked by two different group which was in that study , they was two separate groups and there was no communication between the groups. The groups has been given the anchor which was totally different like to first group it was given 230feet and to second group it was given 987 feet. Although there was no relationship between that two anchors still the average mean of the two group was surprisingly different which was 256 and 836, it was only because of that anchoring effect and this effect also moderate the behavior of the entrepreneurs in their final decision making.

Framing bias is also a bias which has also affected a lot to the decision making of the entrepreneurs in long run as well as in the short run. How the things are being framed it ultimately affect the decision of the person who is going to take the decision regarding that particular frame work. Let's take an example of this framing bias a study has been conducted in china for organ donation, the question which was formed previously that if you like to donate your organs after your death then please tick, in this scenario very less responses were received but when the same question was put up to the general public like if you don't want to donate your organ after your death then tick in this case the response rate was excellent as comparison to the previous one. So, this can be clearly seen that hoe effective this framing bias is on the final decision making of an investor or an entrepreneur.

Overconfidence is also one of the bias that affect a lot to the investors decision making because of overconfidence investor make foolish decisions and they make wrong decision, because they think they are perfect because of past success or some other factors investors are in wrong perception that they have great knowledge of the facts and figure and the decision goes wrong. This is a bias which we also face in our daily life as well and because of this we underreact or overreact in certain circumstances.

Availability is a bias which influence the decision of the investor in a very wrong direction, we take decisions by the information which is only available with us and we forget to take decision that the particular piece of information is not sufficient for the right decision making. Let's take an example as per a news a investor got information that the particular industry will grow in the coming years but the information was not complete because the threats of that particular industry was not disclosed because of that the decision goes wrong the entrepreneur took the

decision by keeping in view only the piece of information that has been floated by other investors in the market this is an example of availability. We often take decision only based on the immediate information that is available to us but the information may not be sufficient enough to take the decision.

Sunk cost fallacy is also a bias that effect the decision making of the investors in long run as well as in the short run, because of previous cost that has been incurred by us in a particular domain forces us to invest more in the same investment domain. Let's make it clear from a real life example Mr. Sunil purchased two tickets of a movie to go out with his girlfriend but his girlfriend said that movie is not worth watching because she has seen that movie already with her friends. Now Mr. Sunil is unable to resell the movie tickets, now he decided to watch the movie with his younger sister but it will be a waste of time that will be invested because movie is not worth watching. So for recovering our old investment we invest more unwillingly. Similarly that happens in this incident just to save the amount of movie ticket Mr. Sunil invested his time to watch that movie.

Priming is also one of most important bias in the investment decision making, the thing or matter for which we are thinking from last some time effects our decision a lot. There is no specific reason behind this but still it happens, it will be clearer with an example. In a USA restaurant there was a trend to run different music on different days like 3 days they use to play German music and remaining three days they used to run Spanish music with no specific reason, the guests used to purchase German wine on the day when German music is being playing and on the other hand the sale of Spanish wine was on peak on the days when Spanish music is being played. So, there is no reason of this, because it is just a mind hack which also happens in the case of entrepreneurial decision when it comes to the investment decisions.

RESEARCH METHODOLOGY

Because of lack of cognitive biases involvement, we are motivated to find out the effect of cognitive biases in the decision making of the investor. It says there is no disparity in the thinking patterns of investors because they are fully aware. But as per the behavioral finance, the thinking patterns are really affected by all these cognitive thinking irrationality because of cognitive biases and how it affects the entrepreneurial decisions ultimately in the long run will be studied in this paper. Different biases will be studied and their effect will be defined in this paper, that will lead to the findings and recommendations that will definitely be helpful for the entrepreneurs in taking right decision making.

In this paper data has been collected using structured questionnaire and the respondent size is 250 from whom data has been gathered. The data is collected using 38 statements and the analysis has been don through SPSS 20.0 version and all the results are interpreted there off.

H1: cognitive biases are significantly related with gender of the investors

H2: cognitive biases are significantly related with income of the investors

H3: cognitive biases are significantly related with occupation of the investors

Results and interpretations

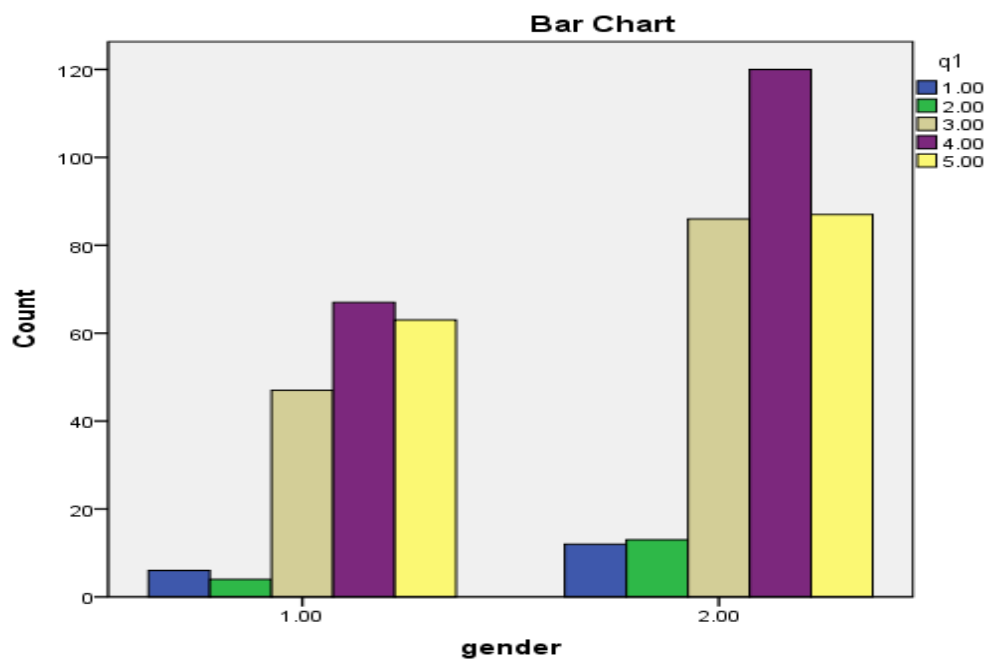
H1: cognitive biases are significantly related with gender of the investors

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
gender * q1	505	100.0%	0	.0%	505	100.0%

Gender Crosstabulation							
Count							
		q1					Total
		1.00	2.00	3.00	4.00	5.00	
gender	1.00	6	4	47	67	63	187
	2.00	12	13	86	120	87	318
Total		18	17	133	187	150	505

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.302 ^a	4	.509
Likelihood Ratio	3.373	4	.497
Linear-by-Linear Association	2.258	1	.133
N of Valid Cases	505		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 6.30.

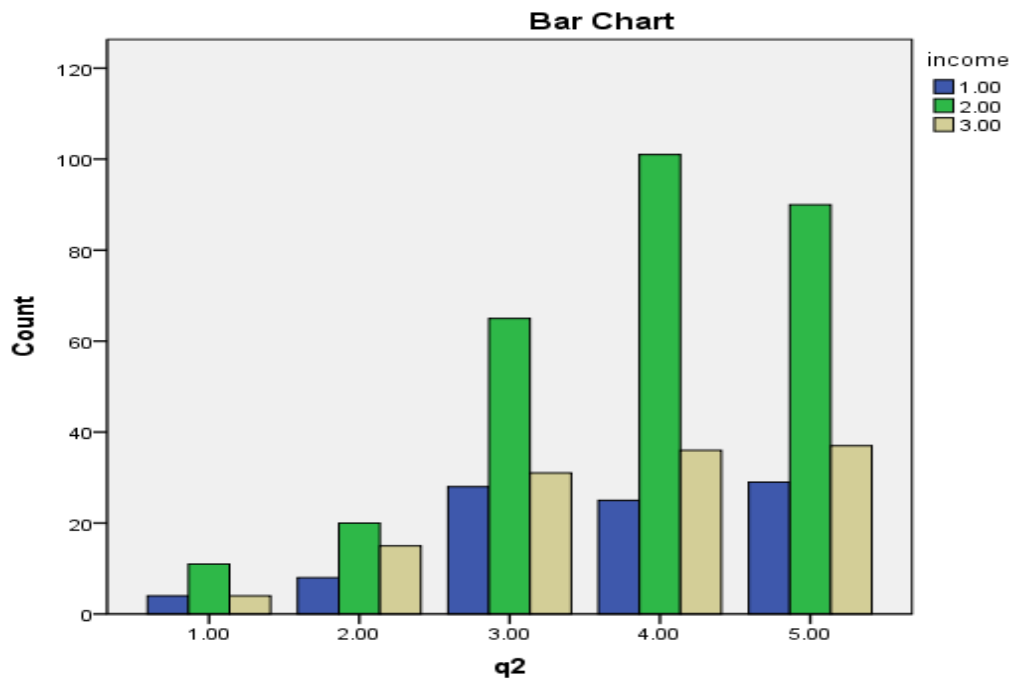


H2: cognitive biases are significantly related with income of the investors

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
income	504	99.8%	1	.2%	505	100.0%

Income Crosstabulation					
Count					
		income			Total
		1.00	2.00	3.00	
	1.00	4	11	4	19
	2.00	8	20	15	43
	3.00	28	65	31	124
	4.00	25	101	36	162
	5.00	29	90	37	156
Total		94	287	123	504

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.488 ^a	8	.593
Likelihood Ratio	6.305	8	.613
Linear-by-Linear Association	.027	1	.870
N of Valid Cases	504		
a. 2 cells (13.3%) have expected count less than 5. The minimum expected count is 3.54.			

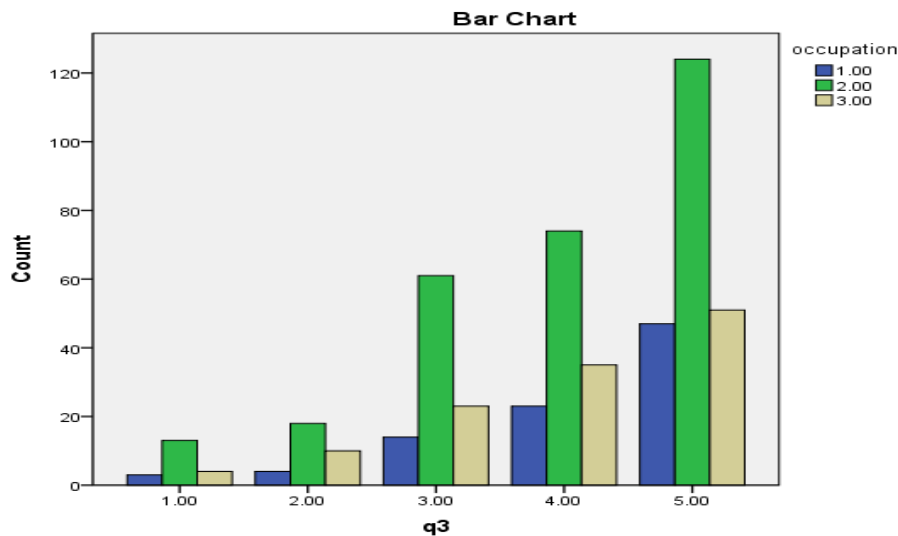


H3: Cognitive Biases Are Significantly Related With Occupation of the Investors

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
occupation	504	99.8%	1	.2%	505	100.0%

occupation Crosstabulation					
Count					
		occupation			Total
		1.00	2.00	3.00	
	1.00	3	13	4	20
	2.00	4	18	10	32
	3.00	14	61	23	98
	4.00	23	74	35	132
	5.00	47	124	51	222
Total		91	290	123	504

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.620 ^a	8	.797
Likelihood Ratio	4.631	8	.796
Linear-by-Linear Association	1.511	1	.219
N of Valid Cases	504		
a. 2 cells (13.3%) have expected count less than 5. The minimum expected count is 3.61.			



CONCLUSION

As per the above analysis we can say that H1 and H2 has been accepted after the analysis but the results doesn't support to the H3 which has to be rejected because it shows no relationship between the occupation and investor behavior.

So from the above discussion it is being clear that behavioral bias effects a lot when we talk about the ultimate decision making. We usually take decision from our two systems:- system1 and system2. System1 is that part of brain from where we take fast decision which does not require lot of thinking and we may say that the decisions that are of routine nature and need not to be logically taken. On the other hand System2 is that part of our brain where we take all the decisions regarding logical thinking, the decision that needs logical attention before we take a

decision, these are not routine decision, and in fact these decision has a long term effect on our life. So here comes the role of behavioral biases which stops our system2 to work properly and misguide us to take decision from system1 only because system1 is a fast system, it doesn't think a lot before taking a decision or we may say that all aspects are not covered in system1, in this system we have a tendency to take decisions by thinking only on one aspect of the decision area. These biases include anchoring, availability, hard behavior, sunk cost fallacy, status quo bias and framing as well as priming etc. Entrepreneurs has to think a lot before taking a decision, one of the questions that arises in my mind is that KFC business idea before being accepted by an entrepreneur was being rejected 900 plus times. It was only the thinking patterns and these behavioral biases which leads to non-acceptance of the worthy business idea. So, there is a lot of need in this area to research that how this gap between the thinking patterns of entrepreneurs can be addressed. It is not only beneficial for our national growth but also for the individual success of the entrepreneurs who because of this bias are bound to think in wrong way that led to rejection of a business idea or not investing in the area which is worth investing, or may be investing where it not fruitful. So ,as it is totally related with behavioral issues need lot of empirical research as suggested by the current and previous researchers.

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EFFECT OF SPEED TRAINING ON SKILL RELATED PERFORMANCE OF FOOTBALL PLAYERS

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ABSTRACT

The main purpose of this study was to examine the “effect of speed training on skill related performance of football players.” total of fifteen subjects were selected purposively for the study from the ICFAI University Tripura, who have participated in at least one intercollegiate football tournament. The age range was between 17 to 24 years. The experimental group underwent speed training (STG, n = 15). The speed training programme was undergone three days a week for six weeks. The experimental group underwent speed training exercises. The pre-test and post-test data were selected through Mor – Christian General Soccer Ability Test for dribbling and shooting skills. The statistical tools were applied paired samples t-test with the help of IBM SPSS software 20. The significance level was fixed at 0.05 levels of confidence. The results showed that the experimental group significantly improved when compared with the pre-test and post-test. On comparing dribbling and shooting speed training, it shows that the post-test mean of dribbling time is less than the pre-test and shooting score is higher than the pre-test mean. The Speed Training group is particularly evident for improvements in the dribbling and shooting skills of football players. The result of the study determined that the speed training exercises have a positive effect on the skills parameters of men football players.

Keywords: speed training, skills parameters and men football players.

INTRODUCTION

Football is the most popular game in the world, and it requires more fitness component ability and skills-based ability. It can be improved by different types of scientific and systematic training methods, where one of the best training methods is speed training. Speed training is an important training method for football players which enable them to move faster and improve their muscular strength where all bio-motor skills are affected. During the match, the high-demand activities are also performed in a specific context. The high intensity efforts like, quick change, acceleration, jumps and sprint. Basically, the main aims of the players are to develop their performance, like tactics, technical performance, and psychological capacity. The success of a sporting event constantly leads the coaches, whose players' performances are constantly analysed and evaluated by sports researchers and coaches to improve their performance. At the time of match, the performance analysis by difference scales. This scale provides the outcomes of competitive matches as well as gives information regarding the training process. It is the main part of the decision-making processes of players and it requires testing for different events. The skill-related performance of football players is measured by taking the Dribble, Shooting, Kicking, and Passing tests before and after the training method. These skills are very essential to developing football players, which are closely related to a high level of performance. The main purpose of the study was to determine the effect of speed training on the skill-related performance of football players. The skills play an important role in enhancing the sports performance of football players as well as other disciplines players' performances. Whenever we see the difference between competition and their performance, it is much less than modern competition. It is possible only when we follow scientific and systematic training methods.

Speed is an important component of physical fitness and it is the ability of a person to cover the maximum distance in the minimum time. Speed can improve with different types of training methods, namely resistance training, plyometric training, and speed training. In this paper,

researchers determined how skills-related performance is affected by a six-week speed training programme for men football players. Speed is an integral part of sports and it is related to the strength of the muscles. A player has more speed ability when he/she has more muscle strength. People have two types of muscle fibres: slow-twitch (type-I) muscle fibers, which help the athlete for a long time, and fast twist (type-II) muscle fibers, which help the athlete with faster movement. Speed training improves the athlete's speed and strength abilities, which are directly related to improving the skills of each player. A good skill can help the athletes to enhance the high level of performance. Research studies show that speed training, when applied with a periodized training program, can enhance the muscle power, leg strength, and acceleration, which can be highly related to improving the skills of players like the dribble, shooting, kicking, and passing, and these skills help the professional players to improve their performance. Dribble is one of the most important and attacking skills, and while moving in a given direction, a player maneuvering the ball. Shooting means it is one of the powerful shots used by the leg and covers the target.

STATEMENT OF THE PROBLEM

The main problem of the study was to find out the "effect of speed training on skill related performance of football players."

OBJECTIVES OF THE STUDY

The study, Researcher has formulated few objectives are given below:

- I. To find out the effect of speed training on the skill related parameters of football players.
- II. To see the present status of football players of ICFAI university, Tripura.
- III. To see the pre and post test effect of football players.

MATERIALS AND METHOD

Subjects of the Study

Total of fifteen (15) subjects were selected purposively for the study who have participated in at least one intercollegiate football tournament. The age range was between 17 to 24 years. All subjects underwent a speed training programme (STP, n = 15).

STUDY DESIGN

Total of fifteen subjects were selected purposively for the study from the ICFAI University Tripura, who have participated in at least one intercollegiate football tournament. The age range was between 17 to 24 years. All subjects underwent a speed training programme (STP, n = 15). The speed training group underwent six weeks of training for three days a week. The pre-test and post-test data were selected through the Mor – Christian General Soccer Ability Test for dribbling and shooting. The statistical tools were used for paired samples t-test with the help of SPSS software. The level of significance was fixed at 0.05 levels of confidence.

TRAINING PROGRAMME

The study was formulated as a quasi experimental group design, consisting of a pre-test and post-test. In the training period, the speed training group underwent three days of training a week for six weeks. The experimental group performed for one hour in the morning session. It started with warm up and continued with some speed exercises such as Lateral high knee run, Flying Start (30mtr), Acceleration run(60mtr), Single leg hop (30mtr), Bounding (30mtr), Résistance (30mtr), and Mountain Climbers. Finally, the subjects cooled down. At the beginning of the training, the training was conducted with two sets and 90% intensity, and after the first week, three sets and 100% intensity were added up to six weeks.

STATISTICAL ANALYSIS

The data was analyzed using IBM SPSS Statistics 20. A paired sample t-test was used to find the difference between the mean and standard deviation of the pre-test and post-test. The significance level was at the 0.05 level of confidence.

RESULT AND DISCUSSION

Table-1 shows that the mean and standard deviation of differences between the Pre and Post test of experimental groups of Skills parameters.

Sl. No	Variables	Groups	Test	Mean	SD	Std. error mean	df	't' Value
1	Dribbling	Experimental	Pre test	41.9890	4.15040	1.31247	9	4.772
			Post test	40.1580	4.08719	1.29248		
2	Shooting	Experimental	Pre test	71.2000	4.73286	1.49666		-5.839
			Post test	86.2000	7.50999	2.37487		

*Significant at 0.05 level.

From the above table, the researcher has done his experiment with a single pre-test and post-test quasi experimental design and has taken tests before and after the speed training. From the table, the researcher has found that the mean value of dribbling is pre test 41.9890 and post test 40.1580, the SD value is pre test 4.15040 and post test 4.08719 before and after training, respectively. The obtained "t" ratio value of dribbling is 4.772. On dribbling, it is greater than the tabulated value of 2.262 with a degree of freedom of 09 at 0.05 level of confidence. The result of the study showed that there was a significantly decreased dribbling time after taking speed training among men football players.

The mean value of shooting is pre test 71.2000 and post test 86.2000, SD value is pre test 4.73286 and post test 7.50999 before and after training, respectively. The obtained "t" ratio value of shooting is -5.839, on shooting it is greater than the tabulated value of 2.262 with degree of freedom 09 at 0.05 level of confidence. The result showed that it was statistically significant. The result of the study showed that there was a significant improvement in shooting after taking speed training among men football players.

The graphical representation of mean comparison of dribbling and shooting is shown at figure-1

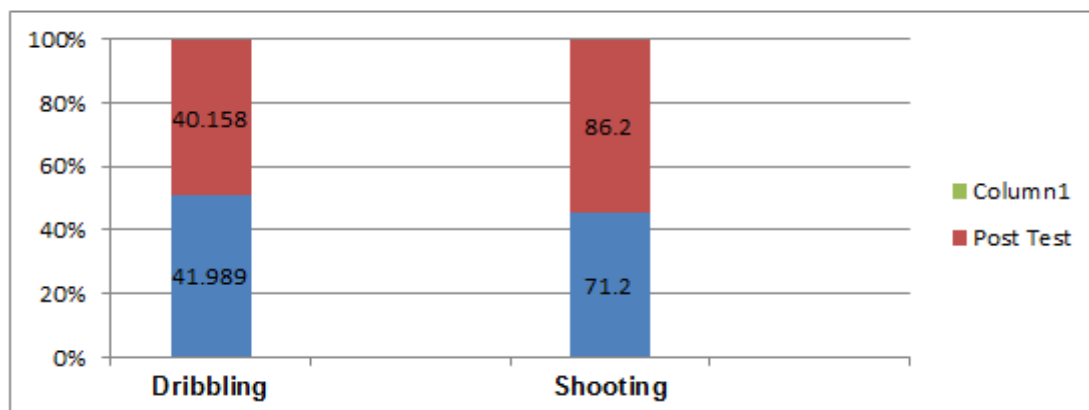


Fig: 1- Significant mean difference of dribbling and shooting of men football players

The above graphs show that the performance of speed training has two items, namely, dribbling and shooting, in that football players have performed accordingly. Researchers have used pre and post tests to check their performance on different items. A pre test has been taken before speed training has been scheduled. After six weeks of speed training, a post test has been conducted on the ground.

In the dribbling variable, shows a decrease of men football players' time from 41.9890 to 40.1580. The data shows that before speed training men football players were more time dribbling while after speed training it has decreased, which shows the improvement of football players.

In the shooting variable, shows the improvement of men football players from 71.2000 to 86.2000. The data shows that before speed training men football players were very less in shooting, while after speed training it has been increased, which shows the improvement of football players.

CONCLUSION

The result of the study found that speed training decreases the time of dribbling and increases the shooting power of men football players. It was concluded that a six-week speed training programme significantly improved the men football players when compared after pre-test and post-test. It has been proven that speed training is the best training method for improving the skills-related performance of men football players.

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**EMERGING TRENDS IN AGRO BUSINESS IN KONKAN REGION
(PEOPLE, COGNITION AND PSYCHOLOGY WITH REFERENCE TO CHANGING
SKILLED WORKERS AND ITS IMPACT ON MANGO BUSINESS)**

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ABSTRACT

The migrated Nepali unskilled workers are playing a major role in skilled and unskilled working in Mango Orchard at Ratnagiri and Sindhudurg district of Maharashtra state. Alphonso Mango (Popularly known as Hapus) is a cash crop and from year 2000 people started cultivating it in professional way, but as the education and communication system got develop the new generation of local population got degree/ graduation and started seeking job in various sectors, the mango cultivators started facing no. of issues so they tried to gain the workforce out of state firstly and got introduce with Nepali workers. Who step by step learned the Unskilled as well as skilled job and now the Agroindustry is changing.

Keywords: Mango orchids, Konkan region, Nepali workers, psychology, cognition.

OBJECTIVES

- 1) To understand working style of Nepali Workers
- 2) To understand the psychology regarding the job and earning the money.
- 3) To understand the skill learning process and its impact on Mango Orchard owner's business.
- 4) To know the purchasing pattern of Nepali workers.

RESEARCH METHODOLOGY

- a) Primary data is collected through the observation and structured questionnaire from the 10 different owners of Mango Orchard in Ratnagiri.
- b) Small interviews from the Grocery shop keepers, Barbers, Mobile sellers.
- c) The secondary data was collected from books, journals and newspapers as well as from internet.

INTRODUCTION

Konkan is known for its traditional Alphonso mango. Alphonso mango is a cash crop and there is an increasing demand for the fruit all over the Indian as well as foreign market. After the liberation and Globalization, the demand for Alphonso mango started increasing. In this era education and communication also started growing as a result local population got a chance for getting different kind of education. At the same time the transportation (Konkan railway) developed the young generation started seeking jobs in various organizations which gives them easy money. (White colour job which is a huge attraction for the konkan people)

As an impact (negative) the local and trained population of mango cultivation, Plucker, grader and packer started reducing and to overcome the issue the mango growers, cultivators started searching form the outside and they came across the unskilled but loyal and hardworking Nepali workers. Somewhere in late 1990s the first batches of Nepali partially migrants entered into mango orchid as protector.

Nepali workers were used to come to India for various jobs basically as protector (Rakhawaldar) As they find out job opportunity in Apple Orchids and with some sources the workers find out

jobs in Mumbai as a protector (Rakhawaldar) and from there they understood the requirement of Rakhawaldar in Mango orchids. The nepali workers are hardworking and as there is no other outer attraction for the person, these workers use to work from early morning 6.30 till 11.00 in the night. As coming from the hilly areas and agricultural background with less literacy ratio and poverty their working consistency is quite good. It's a rough life even for the adults. There are no days off, and no real living conditions. Workers and their families live in makeshift shelters within the orchard — or up in a tree. Some are assigned a room on the property, but guarding up to 1,000 trees means there's only time for sporadic rest, so even those with rooms rarely use them. The Nepalis still return every year, because there is little employment back home, and the money they earn here is 1.6 times as valuable in Nepal.

Till 2010 the men use to work individually and cook for themselves as well as taking care of all other chores but it became difficult for the workers to manage it and take care of their health.

As a solution, these workers began to bring the womenfolk or a younger relative along to cook the food as well as to help them to complete the jobs like cleaning the mango and packing it.

The Orchid owners took this as an opportunity, and offered the junior partner half the salary to work as Rakhawaldar, while the skilled labour work on picking, sorting and packing mangoes.

This system of pairing (jodi) system is practised across the mango orchards today. The pair is paid salary of 1.5 times what one Rakhawaldar would earn. Over the years, the conventional single male migration pattern has expanded to include families too. That way if one of the adults is unwell, one of the children can step in as well as the woman partners started the job of cleaning and as a helping hand for day-to-day work with the orchid owner's house which gave a new source of earning to these fellows.

As a part of life these nepali workers started saving the earned money and take it to their home to sort out the basic requirements like constructing a own house, or a wedding of a sister.

Learning Process and Work Carried Out At Mango Orchid

The first batch started to work as a guard for a mango orchid as an unskilled worker through observation they come to know that there is more money if that start learning about mango tree climbing. Step by step the workers started learning total process of plantation of trees, Fertilizers for trees and sprinkling of pesticides at various times as per the requirement.

The nepali workers were already had a knowledge regarding tree climbing and they were ready to take a risk. Even today the mangoes are plucked from the mango trees by a person with the help of a picker (A tool to take a mango fruit from the mango tree). The technique of holding the picker as well as balancing maintaining one's own body weight on the branch of a mango tree and plucking the mango is learned by practice.

The Other Areas Where the Nepali Workers are Working Nicely are Plucking the Fruits

Learning the Maturity of fruits : The fruit color change yellowish orange from green. and the development of "shoulders" on the stem end of the fruit are the best indicators of maturity. Which can be easily observed by the worker. Also, the fruit flesh turns from white to yellow starting at the endocarp and progressing outward to the skin during maturation.

Post-Harvest Handling and Packaging

A) Grading: The grading of fruits is carried out as per the size, shape, color ,fregrance weight, and maturity. The fruits which are damages, Immature, overripe, and diseased are kept aside and normally the female family member with female workers make some supplementary products like pickle or jam.

B) Packaging: Paper scraps, newspapers, etc., are commonly used as cushioning material for the packaging of fruits which prevent them from getting bruised and spoiled during storage and

transportation. The junior pair of Nepali worker use to cut the papers and handle it. Wooden boxes are commonly used for packaging and transportation of mango fruits.

CJ Storage: Storage is essential for extending the consumption period of fruits, regulating their supply to the market and also for transportation to long distances. At this stage the matured or/and skilled workers keep the fruits in a particular way that it will get ripen and they can shift it for transportation.

FINDINGS

1] Nepali workers are Hardworking and speedy learners : With the interviews held with the orchid owners the Nepali workers are spending more than 12 hours at orchids . these people are ready to do any given job, and ready to learn by observation.

2] As they are partially migrated from the Nepal in India (Konkan) no religious program, no relatives to meet etc. so can spend more time at the Orchid.

3] They learned by observation regarding the mango Plucking, Grading and Packing.

By observing for two seasons and gathering information from their co-workers the nepali workers started their own job.

4] Finding similarity in Hindi language they started speaking Marathi language.

The basic knowledge of hindi was sufficient for nepali workers but by discussion with coworkers and grocery shop people these workers started using some marathi phrases which made them more comfortable to stay in the region.

5] Their Basic need are really basic, a shelter like a shade of metal sheets.

The nepali workers are partially migrant they stay for six to seven months in kokan region and there is no need for the house. They stay at self-made shades with the available material.No need for bathroom or other basic facilities are also not required.

6] **As human psychology these people are coming every year to mango orchid:** The earnings from India are comparatively good and the labours are entering into this area to satisfy their needs like an own house, which they can build within three years working in Mango orchid.

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EMERGING TRENDS IN EDUCATIONAL AND SOCIAL SCIENCE RESEARCH**Dr. Satish Kumar¹ and Ms. Sangita Jain²**¹Associate Professor ²BA-B.Ed. Int. Student, School of Education, Lovely Professional University, Punjab, India**ABSTRACT**

Present paper deals with the emerging trends in educational and social science researches which are going on in India as well as abroad. The paper includes the historical development of the research in educational field specifically and social science generally. The late 19th and early 20th century has been observed a period of tremendous development in social science research methodology as per the review of related literature revealed out. The paper is concluded with the recent modern trends in research particularly related to education these are Design based researches, multi-disciplinary, inter-disciplinary research, use of software in data collection, analysis, storage etc. is prominent.

Keywords: Emerging trends, Educational research, Social Science research, multi-disciplinary, inter-disciplinary research.

INTRODUCTION

Research is a process of systematic inquiry that entails collection of data; documentation of critical information; and analysis and interpretation of that data/information, in accordance with suitable methodologies set by specific professional fields and academic disciplines.

Research is the careful consideration of study regarding a particular concern or problem using scientific methods. According to the American sociologist **Robert Babbie**, “research is a systematic inquiry to describe, explain, predict, and control the observed phenomenon. It involves inductive and deductive methods”.

Types of Research

- i Exploratory
- ii Descriptive
- iii Explanatory

Exploratory: exploratory studies are to explore a group of questions. It is undertaken to handle new problem areas that haven't been explored before. This exploratory process lays the foundation for more conclusive data collection and analysis.

Descriptive: expanding knowledge on current issues through a process of data collection. Describe the behavior of a sample population. Three primary purposes of descriptive studies are describing, explaining, and validating the findings.

Explanatory: conducted to understand the impact of specific changes in existing standard procedures. Running experiments is the most popular form. For example, a study that is conducted to understand the effect of rebranding on customer loyalty.

Educational Research: Historical background and Development

Education research is the scientific field of study that examines education and learning processes and the human attributes, interactions, organizations, and institutions that shape educational outcomes. Scholars in the field seek to describe, understand, and explain how learning takes place throughout a person's life and how formal and informal contexts of education affect all forms of learning. Education research embraces the full spectrum of rigorous methods appropriate to the questions being asked and also drives the development of new tools and methods.

The history of educational research reflects an almost 200-year journey that began with the recognition in the mid-1800s that education is a science. Educational research methodology has been dominated from the start by a quantitative experimental approach. In 19th century, several signs show that development in the natural sciences slowly began to influence by psychology or education. In 1859 the emotion were considered and later by **Alfred Binet and Theodore Simon** in 1904, construction of aptitude tests came into existence. A set of scale for a rating of **ability and knowledge** in major school subjects including handwriting etc. became popularized in many boards. **Fisher** also introduced statistics into educational research by using arithmetic mean as an index of achievement of group of students, in 1870. The first experimental study of attention was published by **Miller** in Gottingen in 1875. James opened the first psychological laboratory in United States to carry out systematic observation but not experimentation.

Experimental research in education originated in the late 19th century in Germany, and initially was seen primarily as psychological inquiry into learning, an academic activity whose contribution to school practice and policy issues was essentially theoretical and long term. The application of research came to be recognised in the first half of the 20th century, but it was seen as the work of experts and specialists, to be used where appropriate by teachers and administrators. The 1950s and 60s saw educational research accepted as a discipline in its own right, and brought it into closer partnership with policy and practice, with increased funding giving those who commission research greater say in design, management and dissemination.

Review of Related Literature: under the review of related literature for present study, the investigator tried to find out the recent trends in educational research studies which is as follows;

Lagemann (2002) stated that educational researchers, policymaker and practitioners agree that educational research is often divorced from the problems and issues of everyday practices. A split that creates a need for new research approaches that speak directly to problems of practice (National Research Council [NRC], 2002) and that lead to the development of “usable knowledge”.

Hoadley (2002) described how a design-based approach to studying mechanisms for learning via on-line discussions led to a fundamental rethinking of the theoretical notion of social inclusiveness and, with the help of local participants and teachers, its operationalization in the research program. This shift avoided a misinterpretation of data and produced an improved learning environment.

Stark & Mandl (2007) concerning the gap between educational research and practice have been raised for many years. This gap has been well documented and has given rise to lively debates among researchers, practitioners, and policy makers

Flemish Educational Council (2007) published an advisory report addressed to the Flemish Minister of Education concerning the relation between educational research and practice. The main recommendations of this report include: (a) The establishment of a specific research fund to promote practitioner research; (b) The establishment of a database that would store all educational research projects.

Vanderlande and Break (2010) conducted a study on, “The gap between educational research and practice: views of teachers, school leaders, intermediaries and researchers”. Aim of this study is to explore the gap between educational research and practice and to assess the views of different key actors. Interviews were organized with teachers, school leaders, researchers, and intermediaries. The results of this study indicate that by building bridges between researchers and practitioners, new incentives for school improvement can be established. Findings indicate that more cooperation between researchers and practitioners can be realized by promoting 'design-based research' and by establishing 'professional learning communities'.

Nouri, et. el. (2020) investigated the development of educational research and concluded that; The first is the pre-methodology (1919-1985) stage, during which scholars carried out their investigations without a distinct systematic scientific method. The second (1985-1994) is a period of rising quantitative approach, during which quantitative methods were becoming central in the education field. The third (1995-2004) is characterized by insistence on the monopoly of quantitative, during which educational and other social science researchers relied primarily on quantitative methods and statistical inference understood as a means to test the proposed hypotheses. The fourth (2005-2014), is a replacement stage started with the wave of qualitative taking over the traditional and provoked the appearance of a new hegemony. The concern for quality stage (2015-2019) is the fifth when the threat of losing credibility and leaving a relativistic impression were considered by members of the research community.

It is therefore not surprising that educational research as a research discipline is difficult to define in unequivocal terms. In this context, Levin (2004) talks about educational research as a contested concept. There are disagreements between researchers concerning the understanding, nature, aims, and methods of educational research. Some authors stress its potential to guide practice and to foster school improvement (Mortimore, 2000; Hemsley-Brown & Sharp, 2003; Clark, 2005; Nisbet, 2005; Munn, 2008). In this sense, educational research is understood as research on education and research for education (Biesta, 2007)

Educational research is a more formal, focused and an intensive process of carrying Out a scientific method of analysis. The main purpose of educational research is focused upon scientific investigation and provide solutions to the problems Educational research is a more formal, focused and an intensive process of carrying out a scientific method of analysis. The main purpose of educational research is focused upon scientific investigation and provide solutions to the problems Educational research is a more formal, focused and an intensive process of carrying out a scientific method of analysis. The main purpose of educational research is focused upon scientific investigation and provide solutions to the problems

MODERN TRENDS IN EDUCATION RESEARCH

Design-Based Research (DBR)

The method was first proposed as design-experiments by Allan Collins in 1990 and Ann Brown in 1992. Collins originally proposed design-experiments as contributing to a 'design science', like aeronautics or artificial intelligence, rather than analytic science that seeks to explain natural phenomena. In the mid-1990s, a group called the National Design Experiment Consortium was founded by the late Jan Hawkins, then of Educational Development Corporation, to refine the method. In 1999, Christopher Hoadley founded the Design-Based Research Collective, funded by the Spencer Foundation, and coined the modern term for the method.

The design-based research methodology is often used by learning scientists in their inquiries because this methodological framework considers the subject of study to be a complex system involving emergent properties that arise from the interaction of more variables than are initially known to researchers, including variables stemming from the researchers themselves (Brown, 1992). Rather than attempting to isolate all the various factors that impact learning as in traditional research, the learning sciences employ design based research methodologies which appeal to an approach to the study of learning – in particular human learning both inside and outside of school.

As mentioned in the conclusion to the 2008 ICLS keynote, there are several forms of design based research now in use in education research.

Multidisciplinary, Interdisciplinary, and Convergence research

Multidisciplinary research is a pursuit of truth with the help of numerous specialized branches of learning which aims at achieving a common aim with the aid of knowledge of other disciplines. Multidisciplinary research is an investigation or inquiry to a problem for ascertaining the hypothesis combining many academic approaches, fields or methods. Further, it can be defined as a search for knowledge through objective and systemic method for an original contribution to the existing stock of knowledge involving a combination of several disciplines and methods.

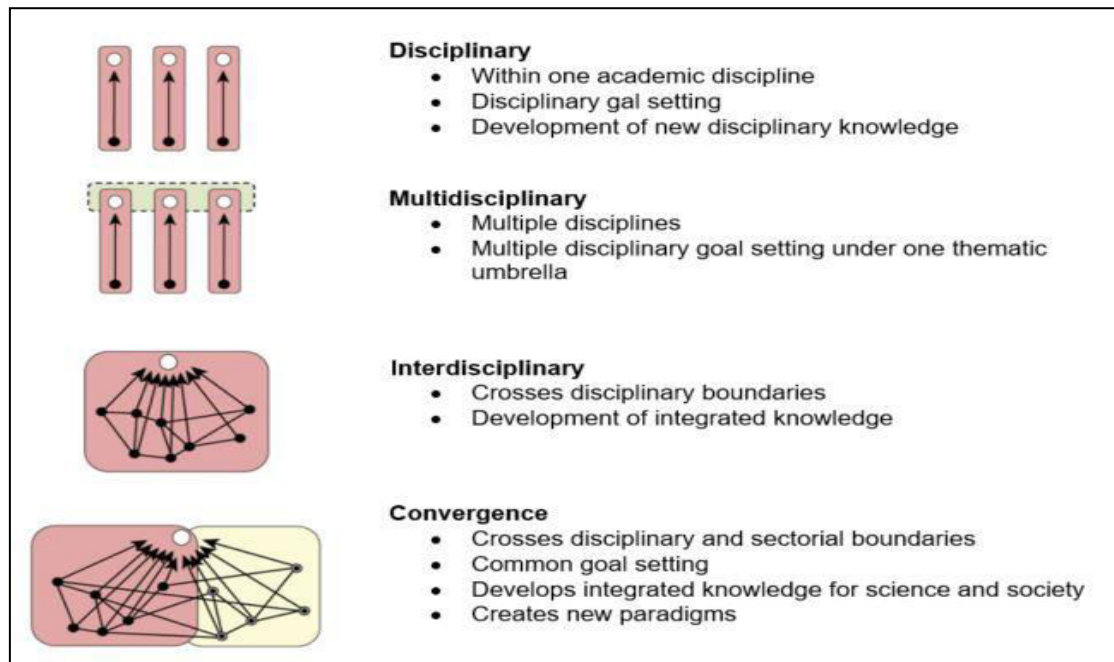
Multidisciplinary research takes place when faculty from different disciplines work independently on a common problem or research question. In this approach, faculty share research goals and work on the same problem, but look at it from their own discipline's perspective. The findings from each discipline are supplementary to each other. The advantage to multidisciplinary research is that each aspect can be analyzed by a particular specialty, which is often necessary to answer complex research problems.

A National Academies report titled **Facilitating Interdisciplinary Research**, defines interdisciplinary research as, "a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice." In other words, rather than working independently, with interdisciplinary research disciplines interact and work collaboratively.

Interdisciplinary research relies on shared knowledge. When this happens, a fundamental shift can take place over time and a new interdisciplinary field emerges. For example, biochemistry, nano-science, and neuroscience all emerged as interdisciplinary fields that eventually grew to become their own disciplines.

Recently, another term – convergence research – is at the forefront of research opportunities coming out of a number of federal agencies. For instance, the National Science Foundation (NSF) named Growing Convergence Research as one of their 10 Big Ideas.

When defined, convergence research has similarities with multidisciplinary and interdisciplinary research. Like interdisciplinary research, convergence research involves integrating disciplines and shifting thought processes, but convergence research takes things even further. In the National Academies report **Convergence: Facilitating Trans-disciplinary Integration of Life Sciences, Physical Sciences, Engineering and Beyond**, convergence research is explained as "a comprehensive synthetic framework for tackling scientific and societal challenges that exist at the interfaces of multiple fields. By merging these diverse areas of expertise in a network of partnerships, convergence stimulates innovation from basic science discovery to translational application."



Adapted from Wright Morton, L., S. D. Eigenbrode, and T. A. Martin. 2015. Architectures of adaptive integration in large collaborative projects. *Ecology and Society* 20(4): 5.

MIX METHOD RESEARCH

The historical debate surrounding quantitative and qualitative research paradigms has been at times rather passionate. More recently, considerable focus has shifted to discussion on how mixed methods research can be performed and used effectively Carcelli & Greene, 1993; Creswell, 2003; Tashakkori & Teddlie, 2003.

Generally speaking, mixed methods can be conceptualized as the use or blending of research methods from both quantitative and qualitative traditions. There exists considerable complexity in how these methods may be used together.

USE OF SOFTWARE AND DATABASE

The last few years have witnessed a dramatic change in the learning model. Technology has brought about various changes in the way education is delivered and received. From self-learning to flipped classroom approach, we have seen technology make a considerable impact on the learning and teaching methodologies.

To have hands on experience on software is considered mandatory skills of the researcher nowadays. The software which are widely used, as follows;

- ❖ SPSS
- ❖ R-Studio
- ❖ MATLAB
- ❖ Python
- ❖ Data gathering tools i.e. Google form
- ❖ Data Storage tools i.e. cloud drives

Beside these software one must be very much skilled on using database for research i.e.

Shodhganga, Scopus, Web of Science, Research gate, J-SOTR, G-STOR, Google Scholar, ERIC and many more.

CONCLUSION

As per the above discussion it can be concluded that the educational research is different from so many other fields of researches, it needs intense review of related literature, unique type of methods of data collection, unique population and sample, sampling process and sample size too. It needs unique procedure of data collection and analysis, and now in the modern scenario so many different software are available which will help the researcher to do the data collection and data & analysis in a very accurate manner. The researchers, the Scholars, educational institutions and all the stakeholders related with educational research, must be very much aware of the new technologies, the innovative practices and they must initiate the things at very initial level of career of the students as a researcher.

Research methodology courses may be introduced at graduation level only instead of masters level so that the student may have mastery over research methodology in early or initial level of their career. One more thing can be included as a suggestion that in higher education people are motivated through so many mechanisms like API score to do research, but such type of mechanism is not available at the school level so it must be included such as CPD (Continuous Professional Development) in which publication of quality research work must be a criteria so that the practitioner must initiate and pursue research in their prescribed areas.

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EMPIRICAL INVESTIGATION ON THE EFFECT OF FOREIGN DIRECT INVESTMENT INFLOWS ON FOREIGN TRADE PERFORMANCE: DEVELOPING COUNTRY ANALYSIS

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ABSTRACT

International trade and FDI are closely interlinked in the theory of economics. This article attempts to provide light as to how foreign direct investment inflows affect the expansion of export-based foreign trade in emerging economies. The study is based on data from India for a time period of 20 years i.e., 2001 to 2020. Based on preliminary tests of stationarity, Autoregressive distributive lag (ARDL) model has been used for analyzing the existence of cointegration among the variables and identifying long run association between them. The Error correction model (ECM) has been used for short-run analysis of impact of FDI on foreign trade. Various stability tests and diagnostic tests have been applied to check the stability of the model. It is observed that FDI has a significant positive influence in promoting foreign trade from India in long- run. However, the impact of FDI on foreign trade turns to be insignificant in short- run. The long run- causality of FDI on foreign trade is a result of foreign market orientation of foreign investors along with significant emphasis on export-oriented sectors of India.

Keywords: FDI, foreign trade, ARDL, ECM

1. INTRODUCTION

Economic growth & development are the core macroeconomic objectives of all countries. The success of these macroeconomic goals is significantly influenced by trade flows and growth. The function of FDI in promoting exports in developing nations is still debatable and directly relates to the purpose for the investment. The World Development Report (World Bank 1987) made major findings, particularly regarding the average yearly rate of economic expansion of the Four Asian Tigers—Hong Kong, Singapore, South Korea, and Taiwan—following an export-led growth plan was 9.5% during the period of 1963–1973, it was only 4.1% in the nations following an import-substitution industrialization (ISI) strategic plan. Of late, the India's policymakers begun to realize the impact of adopting free-market and outward oriented trade policies considering the remarkable growth attained by the East Asian tigers who became independent concurrently with India. Since the early 1990s, India has increased the size of its trade by reducing tariff and non-tariff obstacles and facilitating investment regulations. However, the amount of investment made in a nation's economy determines how much output and exports are increased as well as how much expansion and sustained growth is ensured. Over time, the percentage of multinational enterprises' foreign affiliates in world trade increased, reaching an approximate 33% during the year 2005 as reported by UNCTAD, 2006. The influence of FDI undertaken by multinational enterprises on trade of host economy varies according to the purpose for such investment. Apparently, resources and efficiency seekers are more focused on exports than focusing on strategic assets and markets. The dispute between serving local market of host economy vs seeking international market for exports by foreign affiliates often yields diverse findings (Fink et al., 2003). Countries are believed to be capable of escaping this vicious cycle and obtain the funds required to make investments through FDI inflows (Forgha, 2009). It has been observed in the literature that foreign capital investments greatly support economic expansion by funding domestic investments. In recent decades, India's

exports have increased far more quickly than its GDP. This phenomenon appears to be influenced by a number of variables, notably FDI, that has been steadily increasing since the economic policy changes of 1991. India's foreign trade grew extraordinarily by 44% from \$291 billion to \$422 billion in 2021–22, exceeding the pre-pandemic export growth. However, despite rising inflow of FDI, little effort has been made to analyze its impact on trade performance of India. The purpose of this article is to assess if FDI has significantly impacted India's trade growth using time series annual data from 2000 to 2021 by employing more rigorous econometric methodologies.

Exports and Foreign Direct Investment Inflows in India

Table 1 provides an overview of the exports made by India and the FDI inflows from a period of 2001-02 to 2020-21. It is worth noticing that the direct investment inflows and exports and grown significantly. India received highest FDI inflows worth US\$ 81722 million in 2020-21. The exports of India are observed to have a sharp rise with maximum number of exports in year 2018-19. These increasing trends in the FDI inflows and exports have been due to major policy shifts to make India a market economy. Various policy measures have been adopted by the government to make India an attractive FDI destination. Reduced corporate tax rates, alleviating NBFC and bank liquidity issues, improved Ease of Doing Business, FDI policy changes, regulatory burden reduction, policy initiatives to stimulate domestic production via public procurement orders, Phased Manufacturing Programmes (PMP), and several Ministries' Production Linked Incentives (PLI) programmes are just a few of the actions the central government has implemented to increase domestic and international investments in India. As a result of these policy initiatives, India received highest FDI inflows in 2020-21.

Table 1- India's FDI inflows and Exports

Year	Foreign Direct Investment Inflows (in US\$ Million)	Exports (₹ in lacs)
2001-02	6130	20901797
2002-03	5035	25513728
2003-04	4322	29336675
2004-05	6051	37533953
2005-06	8961	45641786
2006-07	22826	57177929
2007-08	34843	65586352
2008-09	41873	84075506
2009-10	37745	84553364
2010-11	34847	113696426
2011-12	46556	146595940
2012-13	34298	163431829
2013-14	36046	190501109
2014-15	45148	189634842
2015-16	55559	171638440
2016-17	60220	184943355
2017-18	60974	195651453
2018-19	62001	230772619
2019-20	74390	221985418
2020-21	81722	215904322

Source: Author's collection

2. REVIEW OF LITERATURE

Empirical analysis of the literature has been carried out to understand the relationship between direct investment inflows and exports.

Significant impact of FDI on exports

In a study by Basilgan and Akman (2019) the authors investigated the influence of FDI on exports in Turkey. The authors stated that the influence of FDI on exports of a country is affected by a variety of reasons with a general assumption being that FDI inflows to developing nations positively impacted their exports. Using the ARDL estimation model it was observed that FDI had a significant positive impact on exports from Turkey. Sabra (2021) analyzed the impact of foreign direct investments in promoting exports to MENA regions. The author observed positive relationship between FDI and exports. The authors Zhang and Song (2000) studied the critical role foreign investment received by China in promoting exports for a period of ten years. The authors examined this relationship using panel data of China's provinces. The study concluded that there existed significant positive relationship between China's investment inflows and the manufacturing exports performance of the provinces. Mukhtarov et al., (2019) made an empirical analysis of the influence of foreign investment inflows on exports in Jordan. The ARDL bounds testing approach was employed to examine the relationship between FDI and exports. The authors suggested that there existed long run cointegration relationship between FDI and exports from Jordan and that a one percent increase in foreign investment inflows would lead to rise in Jordan's export by 0.17%. Zhang (2005) demonstrates how FDI significantly contributes to China's export boom in the context of the Chinese economy. The report claims that its impact is far greater than that of local capital and has a significant impact in China's labor-intensive sectors. The results of this study are substantiated by Li et al. (2017), who employed the rolling window causality test to explain the dynamic causal link between the two macroeconomic indicators and show a substantial impact of FDI on exports, mainly during the periods when the fraction of FDI from Hong Kong, Macao, and Taiwan is growing.

In a study by Rahmaddi and Ichihashi (2013) the authors examined the influence of direct investment on exports from manufacturing sector using industry level data in Indonesia. The study shows that FDI encourages exports particularly from businesses with high physical capital intensity, human capital intensity and high technological intensity. Tang and Zhang (2016) analyzed the impact of direct investment on export performance of China using industrial data. The author observed that FDI played a significant role in promoting exports from China, it was also asserted that domestic capital was not found to be significant enough in promoting exports from China when compared to impact of FDI on exports. It was also observed that labor intensive industries contribution towards exports was more as compared to others. Li et al. (2020) studied the impact of inward and outward FDI from China on China's exports. The authors concluded that China's inward and outward FDI contributed significantly in promoting manufacturing sector exports. The authors Zheng et al. (2020) investigated the role of FDI in promoting exports of Slovakia for a period ranging from 1995 to 2014. The authors observed that there existed significant and positive relationship between FDI and exports in Slovakia. The association between these variables was found to be bi-directional.

Insignificant impact of FDI on exports

The author Sharma (2000) explored relationship between FDI and exports in India for a period of 1970 to 1988. The author observed that exports from India were significantly influenced by changes in export rates when compared to other nations. It was also found that any appreciation in the value of rupee had a significant adverse effect on exports. Direct investment inflows to India were found to be insignificant in influencing the exports from the country. In a study by Falk and Hake (2008) on panel data analysis, the authors investigated the links between outward FDI and exports in seven European countries based on data from industries for a period of

thirty-two years. Using the GMM model for estimation the authors asserted that an economy's exports did influence direct investment outflows however FDI outflows were found to be insignificant in determining exports of country. Jana et al. (2020) examined the relevance of foreign investment inflows to India in enhancing foreign trade. The author using Johansen's model for cointegration analysis observed that there existed long run correlation between foreign investment inflows and foreign trade. However, the study concluded that there was an absence of long run causality from FDI to exports.

3. OBJECTIVE

The objective of this study is to examine the impact of foreign direct investment inflows in promoting foreign trade from India in short and long run.

4. RESEARCH METHODOLOGY

To study the relationship between foreign direct investment and exports of India, the study uses secondary data provided by Reserve Bank of India and Department for Promotion of Industry and Internal Trade. The study is based on a period of twenty (20) years. The study employs analysis of the unit root tests for knowing the stationarity of data and their order of integration or the order at which they need to be differentiated for making time-series stationary. In statistics, a unit root test tests whether a time series variable is non-stationary and possesses a unit root. The null hypothesis is generally defined as the presence of a unit root and the alternative hypothesis is either stationarity, trend stationarity or explosive root depending on the test used. A non-stationary time-series is assumed to be not fit for running regression equations as it would provide spurious results. Based on review of literature, Augmented Dickey Fuller Test and Phillip-Perron tests are employed for testing stationarity. An augmented Dickey-Fuller test (ADF) tests the null hypothesis that a unit root is present in a time series sample. The alternative hypothesis is different depending on which version of the test is used but is usually stationarity or trend-stationarity. It is an augmented version of the Dickey-Fuller test for a larger and more complicated set of time series models. Like the augmented Dickey-Fuller test, the Phillips-Perron test addresses the issue that the process generating data for y_t might have a higher order of autocorrelation than is admitted in the test equation—making y_{t-1} endogenous and thus invalidating the Dickey-Fuller t-test.

After the stationarity tests are conducted, cointegration tests are applied for understanding the long run association between the variables of interest. To determine if there is a long-term association between different time series, a cointegration test is utilised. Following the publication of the fictitious regression notion by British economists Paul Newbold and Clive Granger, Nobel laureates Robert Engle and Clive Granger first presented the idea in 1987. The results of cointegration tests reveal situations in which two or more non-stationary time series are combined in such a way that they are unable to depart from equilibrium over the long run. The tests help determine how sensitive two variables are to the same average price over a certain time period.

Autoregressive distributive lag model is applied for analyzing the cointegration analysis. The ARDL model is based on the fact that the values of dependent variables are influenced by its own past values under consideration as well as the values of independent variables. Regression models of this type have been in use for decades, but in more recent times they have been shown to provide a very valuable vehicle for testing for the presence of long-run relationships between economic time-series. Given the presence of lagged values of the dependent variable as regressors, OLS estimation of an ARDL model will yield biased coefficient estimates. Further, error correction model is applied to understand the short run relationship between FDI and foreign trade. The estimated statistical equation for ARDL cointegration test for this study is-

$$\Delta \ln FDI_t = \alpha_1 + \alpha_{FDI} \ln FDI_{t-1} + \alpha_{EXPORTS} \ln EXPORTS_{t-1} + \sum_{i=1}^p \alpha_i \Delta \ln FDI_{t-i} + \sum_{j=0}^q \alpha_j \ln EXPORTS_{t-j} + \varepsilon_{1t}$$

Stability tests are used to analyze if there exists any structural change or structural break in the data values. Any structural breaks in the data undertaken would lead to false findings. CUSUM tests assess the stability of coefficients β in a multiple linear regression model of the form $y = X\beta + \varepsilon$. Inference is based on a sequence of sums, or sums of squares, of recursive residuals (standardized one-step-ahead forecast errors) computed iteratively from nested subsamples of the data. The Durbin Watson statistic has been employed to test for autocorrelation in a regression model's output. The DW statistic ranges from zero to four, with a value of 2.0 indicating zero autocorrelation. Values below 2.0 mean there is positive autocorrelation and above 2.0 indicates negative autocorrelation. According to Engle (1982) "in econometrics, the autoregressive conditional heteroskedasticity (ARCH) model is a statistical model for time series data that describes the variance of the current error term or innovation as a function of the actual sizes of the previous time periods' error terms; often the variance is related to the squares of the previous innovations. The ARCH model is appropriate when the error variance in a time series follows an autoregressive (AR) model; if an autoregressive moving average (ARMA) model is assumed for the error variance, the model is a generalized autoregressive conditional heteroskedasticity (GARCH) model".

5. FINDINGS

Results of Unit Root Tests

The findings of unit root tests for stationarity are mentioned in Table 3 and 4. Augmented Dickey-Fuller Test (ADF) and Phillip-Perron Test (PP) have been employed for knowing the stationarity of variables. The analysis of stationarity has been tested at constant and constant with a trend. It is observed that FDI is stationary at first difference in ADF test while significant at level in PP test. Similarly, exports are identified to be stationary at level in both ADF test and PP test.

Table 2: Findings of ADF test for stationarity

Variable	Variable Integrated at Level I(0)		Variable Integrated at First Difference I(1)	
	Constant	Constant & Trend	Constant	Constant & Trend
ln FDI	0.6831	0.3747	0.0724*	0.1664
ln Exports	0.0389**	0.9881	0.0725*	0.0161**

Source: Author's calculations

Note: *, **, *** denote level of significance at 10%, 5% and 1%

Table 3: Findings of PP test for stationarity

Variable	Variable Integrated at Level I(0)		Variable Integrated at First Difference I(1)	
	Constant	Constant & Trend	Constant	Constant & Trend
ln FDI	0.6721	0.0727*	0.7956	0.1664
ln Exports	0.0389**	0.9905	0.0795*	0.0161**

Source: Author's calculations

Note: *, **, *** denote level of significance at 10%, 5% and 1%

Results of Autoregressive Distributive Lag Model

The ARDL model for cointegration has been employed for analyzing the long run association between foreign direct investment and foreign trade proxied by exports. Table 4 provides for cointegration results. The F- statistics being higher than the upper values indicates that long run cointegration exists between variables under study. The F-statistic value being 10.4620 indicates that variables are cointegrated at 1%, 2.5%, 5% and 10%. Table 5 mentions the results of long-run bound test analysis. Foreign direct investment is found to be significant and positive in long-run. It is observed that a one percent increase in direct investment inflows to India would lead to increase in foreign trade by 0.5856%.

Table 4: Cointegration results for ARDL model

Significance level	Lower values	Upper values	F-statistics (Wald test)
10%	3.02	3.51	10.4620
5%	3.62	4.16	
2.5%	4.18	4.79	
1%	4.94	5.58	

Table 5: Results of long-run bound test analysis

Variable	Coefficient	t-statistic	p-value	Conclusion
FDI	0.5856	4.5614	0.0005***	Significant & Positive
C	12.8805	9.0034	0.0000	

Note: *, **, *** denote level of significance at 10%, 5% and 1%

Results of Stability Tests

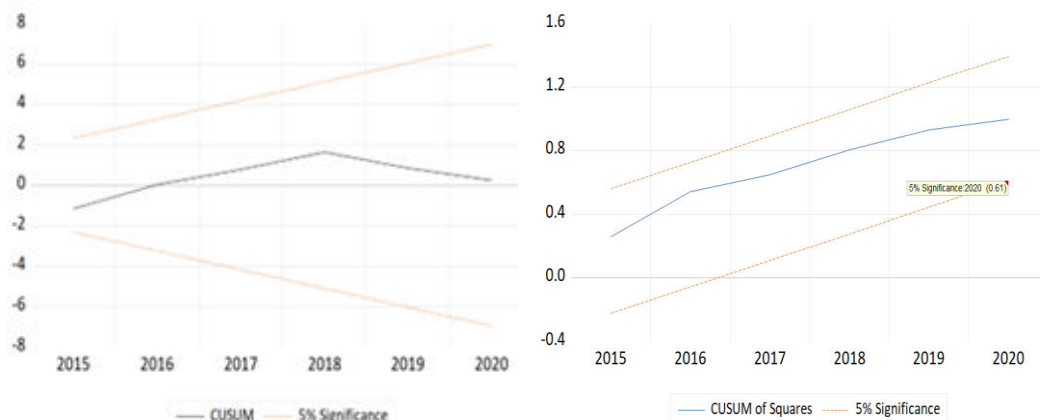


Figure 1: Charts depicting results of CUSUM and CUSUMQ test

Stability tests have been employed to identify the presence of structural breaks in the data values. The plots of CUSUM and CUSUMQ depict that the data is free from structural changes. The CUSUM and CUSUMQ lines lie within the critical boundaries of 5% level of significance. This denotes that data possesses the characteristics of stability and will not provide spurious results.

Result of Error Correction Model

The error correction model (ECM) has been employed to understand the influence of foreign direct investment inflows on exports of India in short run. Table 6 depicts the results of ECM model. It is observed that FDI is not significant in influencing foreign trade of India in short run. Various diagnostic tests have been applied to check for autocorrelation and distribution of error terms. The model passes the diagnostic tests for autocorrelation and homoscedasticity. The regression model adopted qualifies for goodness of fit. The R- squared value of 0.9846 represents that both the variables are highly correlated.

Table 6. Error correction model result

Variable	Coefficient	t-Statistic	p- value	Conclusion
Exports (-1)	0.6529	1.7958	0.1227	Not significant
Exports (-2)	-0.0999	-0.2252	0.8292	Not significant
Exports (-3)	-0.0904	-0.1911	0.8547	Not significant
Exports (-4)	0.1030	0.3343	0.7495	Not significant
FDI	0.0795	0.4699	0.6550	Not significant
FDI (-1)	-0.1441	-0.6747	0.5250	Not significant
FDI (-2)	0.2689	1.3907	0.2137	Not significant
FDI (-3)	-0.1314	-0.6137	0.5619	Not significant
FDI (-4)	0.1646	0.9993	0.3562	Not significant
C	5.7698	2.6274	0.0392	
Diagnostic Tests				
R-squared	0.9846			
Adjusted R-squared	0.9615			
Durbin Watson stat	2.4046			
Heteroskedasticity Test (ARCH)	0.6799 (0.4245)			
Serial Correlation (LM Test)	1.9695			

Note: *, **, *** denote level of significance at 10%, 5% and 1%

6. CONCLUSION

The results of ARDL model followed by ECM model depict that direct investment inflows to India is significant and positive in influencing the foreign trade in long run. The long run bounds test for cointegration depicts that there exists long- run cointegration between the variables undertaken. The ARDL model estimates that a one percent change in FDI inflows to India would bring about a change of 0.5856% in exports from India. The results provide evidence that the FDI inflows to India are not only domestic market oriented but also resource and efficiency seeking due to which there is a significant positive impact of FDI inflows to India on its export sector. The ECM model employed for testing the short run association between variables depicts that FDI is insignificant in influencing exports from India in the long run.

The study would serve as a guide to policy makers in adopting those policies which enhance the flow of direct investment from abroad to India as it would ultimately lead to an increase in India's trade performance. The study also provides directions to researchers in this arena by providing the empirical analysis of FDI on exports. Further studies can be conducted while employing different econometric models so as to ascertain that the results don't vary based on choice of model. This study is limited to empirical analysis on India. Further studies can be directed towards analyzing this relationship in first world, second world and third world economies to understand whether the development status of a nation influences the relationship between FDI and exports. The research offers several policy suggestions, including the idea that the long-term effects of FDI on export should be maintained over time and that policymakers should consider the sustainability gaps. In this regard, the study, in accordance with Kumar (2005), also advises the decision-makers to draw inspiration from the fruitful results of the export-oriented FDI policy reforms by south-east Asian countries like China, Malaysia, Thailand, and Korea and subsequently present policy recommendations for raising the standard of FDI. To put it more plainly, a workable solution may lie in the strong channelizing of FDI into the export-oriented industrial sectors and the gradual removal of administrative hurdles.

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ESCAPISM IN SYLVIA PLATH'S WRITINGS

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ABSTRACT

Humans run around all their life from the mental and emotional bounds of the past, present and the possible future. The concept of escaping and avoiding reality is well known as escapism. Escaping reality to find solace between the pages or in fantasy. Sylvia Plath's work as a writer focuses on the confessional version of writing. Her writing reflects her vigorous tries to escape her reality. To a certain degree, it makes the reader sympathize with Plath's life and question the role of society and the emotional intelligence of the humankind. Sylvia Plath's novel 'the bell jar' and her poems like 'Lady Lazarus,' 'Aerial,' and 'The Colossus' pre-dominantly expresses her diabolic mindset of self-destruction. Plath's work somehow even reflects the position of women in the 20th century, struggling with identity crisis and finding a place for themselves in the society. At the same time, her works even evokes an awareness within the reader regarding the mental health issues and the importance of it.

Keywords: Escapism, suicide, imagination, hope, death, break-down

INTRODUCTION

The beginning of the modernist period is marked in the 19th and the mid-20th century. Literature and writing were breaking out of the conventional ideas of the past after the World War I. New styles and ideology was being formulated and implicated all around the world. There were break-ups with the conventional ideologies of philosophy and politics. There was advancement in science and technology. At the same time the literature and language too were catching up to the trend of change. Writers were inventing and surfing through different styles to find their own and comfortable way of expression. The typical Elizabethan or the Victorian ideology of writing styles also went through the modernization of the time.

Sylvia Plath is a modernist writer, an American poet of the 20th century. She used the alias Victoria Lucas for her writing career. Most part of her life was eventful and is the result of her experience. Her writings are confessional in nature. The major focus of her work was on her real-life experience and the incidences. Mostly influenced by two most important people of her life, her father Otto Plath, and her husband Ted Hughes.

Plath's work "The Bell Jar" her only novel had a touch of her real-life event. The character's struggle and mental health issues resonated with Plath's situation equivocally. The story begins with a young adult girl out in the boisterous society of New York to find her identity and fulfill her desire but ends up disappointed. And this struggle leads her to end up in the mental institution going through shock therapy and while going through the shock therapy she felt as if she was getting free from a bell jar.

But the same cannot be said about Plath's poem that continuously showed her desperation and unacceptance towards the changing situations. In the poem 'Lady Lazarus,' Plath takes reference from the 'Bible.' She imagines herself in the place of a mythical character called 'Lazarus,' who is resurrected again and again from death. Though this resurrection is not of an appreciated act in the poem.

Hope and Despair in the Bell Jar

Sylvia Plath's writings portrayed her contrasting mental states. Comparing Plath's life and her work we can see how bitter and hopeless were her feelings towards her life. All her works portrayed, what possibly different could she do if her life and role was something different.

Plath's only novel 'The Bell Jar' published in her pseudonym Victoria Lucas is somehow autobiographical in nature. The fate of the writer and the main protagonist coincide at a certain point, they go through similar struggle and has similar life experience. In this book Plath talks about a young college girl called Esther Greenwood who aspires to be a poet. She gets an internship as a guest editor at Ladies' Day magazine. Esther's time in New York city is not as enjoyable and perfect as she ever imagined. She suffers from the struggle of social norms.

Esther's remark about New York says about her impression and life over there. 'New York was bad enough. By nine in the morning the fake, country-wet freshness that somehow seeped in overnight evaporated like the tail end of a sweet dream.' ('The Bell Jar' 1963, p.1)

Esther life continues to coincide with the author as the story progresses. Esther's boyfriend cheats on her with another girl and Esther finds this situation absurd and believes that her boyfriend was a hypocrite. At the same time her job was not faring well. Hence, she decides to quit her job and focus on writing. Esther gives her all to writing spending days trying to write her novel but ends up despondent and without any progress. Due to this she attempts suicide several times. Later she was admitted to the mental institute due to over-dosing on sleeping pills. There she goes through the therapy under a psychiatrist. Esther goes through shock-therapy and she feels like she is freed from a bell jar. During the stay in the mental institute Esther personally experienced the death of a patient who was quite close to her. After this incident she regained her will and hope for life and decided to continue living.

Howard Moss in his article 'Sylvia Plath's "The Bell Jar"' wrote: 'Pain and gore are endemic to "The Bell Jar," and they are described objectively, self-mockingly, almost humorously to begin with. Taken in by the tone (the first third of "The Bell Jar" might be a mordant, sick-joke version of "Breakfast at Tiffany's"), the reader is being lured into the lion's den—that sterile cement room in the basement of a mental hospital where the electric-shock-therapy machine waits for its frightened clients.' (H. Moss 1972, The New Yorker)

Plath's work *The Bell Jar* represent both despair and hope simultaneously. The desperation from not achieving anything to regained hope towards life the transition is quite commendable. The protagonist's disappointment towards the society and love, followed by the mental breakdown of not achieving the goals and the desperation for death to feeling the freedom and regaining a new lease on life is clearly portrayed in the novel. This novel can be taken as a piece of revolutionary work during that time. The position of women during the early 20th century was quite sensitive. Plath's work represented the struggle of a young sensitive girl who is out in the society searching for her own place. The place where she can fit in perfectly.

Mahrukh Baig's in his journal article "Sylvia Plath's *Bell Jar* as A Psychological Space" wrote that:

"Sylvia Plath portrays the conservative 1950s America in her novel. "The Bell Jar" struggles to define a sensitive girl in a world that denies the development of the female self. It is a bitter critique of 1950s American society that has rules, regulations, double standards and emotional as well as physical constraints on the female. Plath pictures the devastating effects of such elements experienced by women who are slowly driven insane by the gender stereotypic confines of their social world. Esther's sense of living in a bell-jar of social pressures is the root cause of her psychological space between self and society, body and soul. As a bright, unmarried woman of the 1950's, she is either expected to be a virgin, or destined for a marriage where husband dominates wife, or likely to have a career of a secretary and most appreciatively all of the above. These social confinements have fragmented her existence in a dismembered society itself. Plath's novel criticizes the jar-like contemporary society for its double standards, male-dominance and hypocrisy. The double sexual standard in 1950s America gave men a privilege of premarital sex; however denied women of the similar sexual expression that generated a definite sense of depression and frustration in them." ("Quest Journal" 2014, p.24)

Diabolism and Unacceptance in Plath's Poem

Parvin Ghasemi in his research journal "Violence, Rage and Self hurt in Sylvia Plath's Poetry" expressed that:

'A considerable body of Sylvia Plath's work portrays a world devoid of meaningful spiritual resources. This world crashes the self and leave out the corpse, mutilated and silenced. As a reactionary gesture against this oppressive modern society, Plath employs a shockingly harsh language, a host of violent images, impressed by painful and hurting incidents and experiences. Her work, then, exhibits a rebellion against the confinement of "self" in the bondage of conformity and subjection and suggests an outlet of expression which indicates the individual's struggle to liberate "self" from the bondage of social conformity and dispossession.

Thus, the bulk of Plath's work signifies development and transition, emerging from the persona's experiences of estrangement and entrapment.' ("CLA Journal"2008, p.284)

He Further Writes

'The persona that Plath presents in her work is a multi-dimensional portrait of the modern woman. While she does not rule out the domestic dimension of a twentieth-century woman's existence, many of her poems delineate a woman who stands far away from the established domesticity governed by patriarchal laws. Although in her poetry Plath shows sympathy and love towards maternal bonds, she sees them as a obstacles in the way of the creative imagination of the modern woman artist who attempts to explore pure feminine experiences. The intense rage in some of her poems is an outcome of the desperate struggle of the voices of the personas inside her mind. Having experienced different socially imposed roles as a daughter, wife, and mother, Plath herself was too aware of the dilemma of being "herself", overshadowed as she was by male figure.' (Ghasemi, p.285)

When Plath's emotion in her poem Lady Lazarus is examined. We find her in an absolute delirious state where she speaks of how she wishes to die but it is the doctors who are between her and her death. This poem has an eerie and cryptic sense of darkness in it.

In the 'Lady Lazarus' Plath compares herself with a mythical character from Bible. As mentioned in the new testaments, 'Lazarus of Bethany was the brother of Martha and Mary and lived at Bethany, near Jerusalem. The account notes that Jesus loved Lazarus and his sisters and that when Lazarus died of illness, Jesus wept and was "greatly disturbed." Although Lazarus had been entombed for four days by the time Jesus arrived at Bethany, he was raised by Jesus from the dead and emerged from the tomb wearing his burial cloths. This miracle, witnessed by many Jews who had come to grieve with the family, inspired many to believe in Jesus as the Christ. Lazarus was also present when his sister Mary anointed the feet of Jesus with expensive perfume. (Britannica)

Lazarus resurrection was a matter of celebration but when Plath writes the same, she completely twists the emotion into something different. She despises the fact that she has been resurrected again and again. She wishes for her death but it is the doctor and the well-wishers who resurrects her from death again and again against her very wishes and hope. The feeling is clearly expressed in the following lines:

I turn and burn.

Do not think I underestimate your great concern.

Ash, ash——

You poke and stir.

Flesh, bone, there is nothing there——

A cake of soap,

A wedding ring,

A gold filling. ("The Collected Poems" 2018, p.267-268)

In the above lines Plath uses the imagery of death to convey her feelings. She compares how she is burned to smithereens in the Nazi concentration camp and all that is left of her is the ashes, a cake of soap and her wedding ring. She further states that she will be resurrected from her death like Lazarus and will come for her enemies. It can also be said that in the above lines Plath refer to the death of her marriage.

Susan Van Dyne in her journal article "Fueling the Phoenix Fire: The Manuscripts of Sylvia Plath's 'Lady Lazarus'" stated that:

"'Lady Lazarus' looms large among the major poems from the last five months of Plath's life which we now regard as her poetic coming of age. These poems are almost obsessively concerned with the making of a literary alter ego – how to realize through language a new vision of the self. In "Lady Lazarus" the poet worried not only about how she would define the self but how she would defend it.

One of the poems conceived around her birthday, "Lady Lazarus" marks the poet's taking stock of her history. Her urge to reorder her past retrospectively and to utter a compelling prophesy about her future prompt this poem's terrifying self-dramatization.' ("The Massachusetts Review" 1983, p.395)

Escapism in Plath's works

Escapism can be explained as the urge or the desire to escape, or avoid the reality. People with the tendency of escapism tends to fantasies about the alternate reality that they possibly could live. They start living in their imagination.

In the journal article "Escape and Escapism Varieties of Literary Experience" of Robert B. Heilman, he wrote:

'Escape literature-surely a recent, subliterate and unambiguous phenomenon? A by-blow begot upon mass semiliteracy by the holy spirit of commerce?

It's not quite so simple. Actually, it is not possible to look at this term in isolation from related terms ancient (escape) and modern (escapism), or in isolation from either inherited attitudes that influence the connotation of escape literature or more recent conditions that make escape a term currently of great symbolic representativeness-sometimes ironic, sometimes poignant. Hence to comment on escape literature is inevitably to get into historical and social as well as literary matters, and indeed into complexities of function that such a plain term might seem to rule out.' ("The Sewanee Review" 1975, p.439)

When Sylvia Plath's works are analysed closely. One can see the semblance of Plath's work with escapism. In the novel "The Bell Jar", Plath tries to escape the clutches of her society. Then tries to escape the despondency she was going through due to her failure to write and tries committing suicide again and again. Even the novel seemingly ends with a reignited hope for the future and new out look and expectations from life but the beginning to end the tries of escaping remains constant.

In the poem "Lady Lazarus" Plath again portrays the similar expression of confession and tries of escaping her reality. The tries, that after death her situations might change. She was knowingly or unknowingly creating an alternate universe of darkness and gloom, where she was trying to confine her consciousness.

Majorie Perloff in her Journal article "Angst and Animism in the poetry of Sylvia Plath" wrote:

'If Sylvia Plath's early poetry strikes the reader as being too "careful" and "seldom exciting" it is no doubt because prior to 1960, the date that she herself considered the dividing line between Juvenilia and real poetry, she did not yet understand that third-person description, narrative or ironic observation were alien to her poetic vision.' ("Journal of Modern Literature" 1970, p.60-61)

Arthur K. Oberg in his Journal article "Sylvia Plath and New Decadence" wrote:

'Although presented with clinical objectivity, the death relieved by Sylvia Plath in *Ariel* is her own death, unlike the parable-like presentations of it in poems of the first volume. The isolated, hermit's house of *The Colossus* becomes, in *Ariel*, a mausoleum and a wax museum. Concerned with the perfection of death, Sylvia Plath feels fear for and fascination with what will become. Stasis is at once attractive in its rest and repulsive as it strangles and suffocates. Hooks, both real and sur-realist, reach out continually to destroy her. Figures of Lazarus in the grave, Gulliver tied down by the Lilliputians, and Isadora Duncan in her tragic, romantic death occur as embodiments of these fears. If her dreams bind her to such fears, they occasionally, as at the conclusion of "Lady Lazarus" free her from them.

An artistic and mental predilection for anesthetised states never excludes for Sylvia Plath the possibility of admitting enormity and danger in the process of reducing her poems to the fixity of stone.' ("Chicago Review" 1968, p.70)

Sylvia Plath through all her writings expressed her fear and unacceptance. Her deformity thought process shows her disregard towards life and her eagerness for death. Even though she is scared of death and fears the changes but as with the knowledge that death is a certain ending and release from her painful life makes her accept it whole heartedly.

CONCLUSION

Sylvia Plath is a true modernist writer. She skims through different writing styles but keeps her own the one of a kind. The unique feature of her poems has always been the blunt disregard to the society. Criticizing its culture, discrimination, and the proposition. She criticizes every conventional and conservative ideologies of the society. Though Plath had her own mental demons to fight with but she pioneered and represented the struggle of the women in the 20th century. How like her, they too were suffering the brutality of the society. Plath's tries to escape her reality. She was trying to construct her own world filled with her own misconstrued hypothesis. Her fear and her unacceptance to changes was spiralling into her diabolic thoughts and eagerness for death. Escapism the true constant in Plath's life and work. Her vigorous tries to twist her reality into something different is apparent throughout her works. Her imagination played an important part in her attempt to suicide, her emotional and mental break-down and her death.

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FACTORS AFFECTING SPORTS CONSUMER BEHAVIOUR

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ABSTRACT

The process by which consumer select, purchase and consume goods and services to satisfy their needs and wants is known as Consumer buying behavior. Consumer behavior involves different processes. There are many factors which influence the individual in his decision-making process. The study aims to gain understanding of sports consumer behaviour and factors affecting sports consumer behaviour. For successful sports marketing it is necessary for every organization to understand why and how the behaviour of sports arises. It is pivotal for every organization to understand the factors which contribute in shaping the and influencing the behaviour of sports consumers. Organisations can make better marketing strategy by understating the factors which influence the sports consumers in their decision-making process.

Keywords: Sports marketing, Sports consumer, sports consumer behaviour

INTRODUCTION

The process by which consumer select, purchase and consume goods and services to satisfy their needs and wants is known as Consumer buying behavior. Consumer behavior involves different processes. There are many factors which influence the individual in his decision-making process (Ramya and Ali, 2016). Funk (2008) defined "Sport and event consumer behaviour (SECB) is the process involved when individuals select, purchase, use, and dispose of sport and sport event related products and services to satisfy needs and receive benefits". For successful sports marketing it is necessary for every organization to understand why and how the behaviour of sports arises. It is pivotal for every organization to understand the factors which contribute in shaping the and influencing the behaviour of sports consumers (Abdolmaleki et al., 2014).

Sports Marketing

Sports marketing can be defined as the use of concepts of marketing to market sports products and services and also to market the non-sport products by associating them with sport (C.T. Smith. 2008). Sport marketing is that concepts of marketing in which special technique promotes sports products and services by associating them with sport and persons related to sports. Marketing has 4p's which are product, price, place and promotion. But sports marketing have 4p's which are Planning, Packaging, Positioning and Perception (**Garla and Y**).

Sports Consumers

Smith (2008) defined sports consumers as those consumers or group of consumers who pays to utilize the services and products which are related to sports directly or indirectly

There are four categories' Sports consumers:



Fig. 1: Types of sports consumers

Sports Consumer Behaviour

The process by which consumer select, purchase and consume goods and services to satisfy their needs and wants is known as Consumer buying behavior. Consumer behavior involves different processes. Funk (2008) defined “Sport and event consumer behaviour (SECB) is the process involved when individuals select, purchase, use, and dispose of sport and sport event related products and services to satisfy needs and receive benefits”. There are many factors which influence the individual in his decision-making process. The study aims to gain understanding of sports consumer behaviour and factors affecting sports consumer behaviour. For successful sports marketing it is necessary for every organization to understand why and how the behaviour of sports arises. It is pivotal for every organization to understand the factors which contribute in shaping the and influencing the behaviour of sports consumers. Organisations can make better marketing strategy by understating the factors which influence the sports consumers in their decision-making process.

Objective

- 1.To gain understanding of the concept of sports consumer behaviour.
2. To study factors affecting sports consumer behaviour.

REVIEW OF LITERATURE

It is necessary for every organization to gain competitive advantage over its rivals for the success of the organization. This competitive advantage can be gain by the organization by focusing on the needs and expectations of the prospect consumers. By gaining this information the organization can recognize the factors which affect the behaviour of consumers (Abdolmaleki et al., 2014). Success, team support, sports level support, community support and player support are the internal motivators while promotion, player behaviour, media advertisement, aesthetic, excitement, athlete physical skills and role model are the external motivators. Lack of knowledge, success, interest from companionship works as Internal constraints. Knowledge of motivators and constraints of sports consumer behaviour can help the sports marketers for better planning and achieving greater benefits and consumer satisfaction (Rizvandi, Tojari and Zadeh ,2019).

Factors Affecting Sports Consumer Behaviour

Marketing Mix	Mental Factors	Personal Factors	Social Factors	Cultural Factors
•Product •Price •Place •Promotion •Brand Character	•Character of consumer •Attitude •Motivation •Concept •Excitement	•Income •Education Level •Sex •Age	•Social Class •Family •Idea Leader •Reference Group	•Religion •General

Source: Adapted from (Abdolmaleki et al., 2014).

Fig 1: Factors affecting sports consumer behaviour

1. **Marketing Mix:** There are 4P's of marketing i.e., the combination of product, price, Place and promotion. (Mihai, A.L.,2013). The components of marketing mix have influence on consumer behaviour (Abdolmaleki et al., 2014).
 - a) **Product:** Sports products are those goods, services and ideas which are related to sports. It also includes combination of good, services and ideas which are associated to sports and provide satisfaction to sports consumer. (Shank 1999).
 - b) **Price:** The price of a product is means the what a consumer has to give up to take possession the product. Pricing of sports product is very critical for the success of sports marketing strategies. Promotional pricing can be used to arouse interest of the consumers in the purchase of the product (Mihai, A.L.,2013).
 - c) **Place:** Place is also called distribution channel. Distribution channel is used for the availability of the sports product to sports consumer. The sports marketer has to thoughtfully make the choice of distribution channel through which sports products can be make available at right place for sports consumers. (Mihai, A.L.,2013).
2. **Promotion:** Mihai, A.L. (2013) said in his study that promotion includes all form of communication which persuade sports consumers to buy the sports product and also give information about the availability of the sports product.
3. **Psychological Factors:** Psychological factors includes Motivation, attitude, perception and past experiences. These factors affect sports consumers behaviour (Abdolmaleki et al., 2014). Motivation and perception are most important factors which affect consumer behaviour (Ramya and Ali,2016).
 - a) **Motivation:** According to William J Stanton, an individual's drive or an urge which he /she wants to satisfy is called motive. If the person wants to satisfy his urge through the purchase of something it is called its buying motive (Ramya and Ali,2016).
 - b) **Attitude:** Attitude can be defined an individual's evaluation, tendencies and feelings, towards somethings, and also, the determinations of something such as someone's likes and dislikes about somethings by an individual (Kotler, et al, 2007 as cited in Ahmad Hosaini and Rojhe, 2020).
 - c) **Perception:** It is the process of selection, organization and interpretation of the information individual receives from the environment in order makes sense and understand the information (Rani, P. 2014; Hosaini & Rojhe, 2020).
 - d) **Past Experience:** The past experience of consumers influences the future purchase of the consumer to a great extent. Consumers processes the information in his mind which he got from past experience and learns from that (Abdolmaleki et al., 2014).

- 4. Individual Factors:** Income, gender, age, and education level are some of the individual factors which have affect the behaviour of sports consumers to a great extent (Abdolmaleki et al., 2014).
- a) **Age:** Age influence the buying behaviour of sports consumers (Abdolmaleki et al., 2014). The habits, environment and hobbies of a person changes over his lifetime. An individual will not likely to buy the same product he used to buy at the age of 20 years when he became 70 years old as his needs and preferences has been changed (Rani, P. 2014)
 - b) **Gender:** Gender plays an important role in purchase decisions of an individual. The likes-dislikes and preferences of men and women are diverse from each other. Women are more sensitive than men and also, they show more warmth than men but it also their location, culture social factors (Lakshmi et.al,2017).
 - c) **Income:** If an individual purchase any sports it depends on his income and his financial ability to purchase that product (Abdolmaleki et al., 2014). The financial condition of the consumer influences the behaviour of consumer. If the consumer is financially prosperous, he may buy expensive products, but if he is not, he has to buy relatively low-priced products (Rani, P. 2014)
 - d) **Education Level:** The level of education affects the thinking pattern of the consumer and how he views things of his surroundings. The level of discretion of a highly educate consumer will be high (Kumar, R., 2014).
- 5. Cultural Factors:** The study of cultural factors is very crucial to understand the behaviour of sports consumers.
- a) **Culture:** Culture is very vital cause of individual's needs and wants. An individual learns through communication with various people which in turn affect their decision making and behaviour. Therefore, it is vital for marketers to understand the cultural factors to get knowledge about their taste preferences and also to understand their decision-making process (Kotler, et al, 2007).
- 6. Religion:** Holt (2002) highlighted in his study that religion guide the behaviour of an individual and it is combination of values, beliefs and practices Mansori (2012) said that religion affects the values and beliefs of an individual. So, religion can affect the shopping pattern of and individual in positive or negative way.
- a) **Social Factors:** Man, lives and grows in a society. Therefore, the people of his surrounding affect his decision making and preferences towards products and (Ramya and Ali,2016).
 - b) **Family:** The personality of an individual is shaped by his social environment and the social environment is provided by his family. Therefore, his behaviour is greatly affected by his family. For example, if husband is influenced by wife, then marketer will target wife in his advertisement (Rani, P., 2014).
 - c) **Social Classes:** Social classes can be defined as groups which are homogenous some aspect and form a social hierarchy (Rani, P., 2014). The philosophy of the members of a social class are similar. They have a tendency to have alike life style and pattern of consumption (Mohammadian and Khataei, 2011).
 - d) **Reference Group:** Reference Groups are group of individuals which affect the behaviour of individual directly or indirectly (Kotler, et al, 2007). The influence of reference group is more for the purchase of products which are visible like shoes, dresses etc. (Rani, P., 2014).

CONCLUSION

The study concluded that Marketing mix (price, product, distribution channels, promotion), Psychological factors (motivation, attitude past experience, perception), Individual factors (income, gender, age, and education level), Cultural factors (culture and religion) and social factors (family and references group, social class) affect the behaviour of sports consumers. It is necessary for every organisation to understand these factors for the successful formation and implementation of the sports marketing strategies.

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FINANCIAL LITERACY – A FACTOR AFFECTING FINANCIAL PLANNING**¹Ms. Reenu Kumari and ²Dr. Bhavna Sharma**¹Research Scholar and ²Assistant Professor, BPS Mahila Vishwavidyalaya, Khanpur Kalan, Sonipat**ABSTRACT**

Financial literacy is all about the skills and knowledge required for an individual to understand the financial concepts, principles and to make good decisions regarding their personal finance matters. Literature exposed that there is an absence of standardized construct and instrument clarity for measuring financial literacy. The absence of operationally valid instrument presents a challenge amongst researchers to make comparison of financial literacy level around the world. This study is based on review of previous studies available into literature. This paper aims to develop conceptual framework for measuring financial literacy level of individuals. Moreover this paper gives implication for financial literacy framework that can be used in future research.

Keywords: financial education, financial planning, financial knowledge and financial behaviour

1. INTRODUCTION

In today's world, the importance of abilities and skills to manage personal finances has been increasing. Over the recent years Indian economy has grown at a rapid pace. The growth and development phase of Indian economy mainly started after 1991, when the new economic policy introduced with the concept of liberalisation, privatisation and globalization. A growing body of research reveals that much of poor and rural populations around the world are connected with informal financial system and the access to formal financial system in itself lacking leave aside the awareness about financial products and markets. The first and foremost challenge before the country is to make inclusive growth and to connect the rural people with formal financial system. For this inclusive growth the term financial inclusion was first introduced by Y. Venugopal Reddy in 2005. Financial inclusion is defined as a process which makes sure that financial services are made available to the most vulnerable, low income group of people in the society. Without the proper knowledge of financial concepts the individuals cannot avail the benefits of new schemes in the area of financial inclusion. Financial literacy creates demand for financial products and services. All segments of the society need financial literacy in one form or the other. Financial literacy helps individuals to improve their level of understanding regarding financial terms which enables them to make informed financial decisions. Financial literacy can be defined in broad and narrow perspectives; from a broad perspective financial literacy is related with understanding of economics and how nations economic structure and conditions affect the household financial decisions (Worthington, 2006) and a narrow definition of financial literacy is related with skills and knowledge required for saving, budgeting and investment decisions. Thus financial literacy is all about the skills and knowledge required for an individual to understand the financial concepts, principles and to make good decisions regarding their personal finance matters. Lusardi, A. considered as a top author of publishing financial literacy stated that financial literacy affects personal financial decision making and lower level of financial literacy can be linked with poor financial planning, ignorance to retirement planning and lack of participation in formal financial markets. Furthermore a report of a committee of financial inclusion under the chairmanship of Dr. C. Rangarajan emphasized on financial education, financial inclusion and financial stability as a major indicator of economic development.

2. LITERATURE REVIEW

The concept of financial literacy was first invented in 1787 by John Adams in USA; he realized the significance of financial literacy towards credit and basic knowledge about the nature of money; Financial Corps, [2014; as cited in Garg & Singh, 2018]. But in research the term financial literacy gained importance in late 1990's. The initial studies focused on the school or college students and identified the need of money management practices amongst the students (Goyal & Kumar, 2020). Hung et al. (2009) in his study stated that there is great variation existed into literature about defining and measuring the financial literacy and researcher also lay down the stress on that the concept of financial literacy must be define clearly to enhance the comparability of studies conducted by different authors.

Huston (2010) presented extensive literature review of 71 research studies based on 52 different data sets and concluded that 47% of studies define financial literacy and financial knowledge interchangeably in their studies. The study also demonstrated that 72% of studies did not include any operational definition of financial literacy. Majority of these research studies published from 1996 to 2008, only 13% of studies among 72 research studies provided an operational definition of financial literacy. Huston (2010) proposed a conceptual definition of financial literacy having two dimensions; knowledge dimension (understanding of personal financial concepts and products) and application dimension (ability to use this knowledge for making financial decision). Individuals and organizations doing research in this field had used different definitions and measures of financial literacy; this slow down the progress of designing and implantation of consumes education programs (Remund, 2010). Based on the review of research studies over the past decade Remund (2010) summarized the financial literacy definition into five categories such as; understanding of financial concepts, capability to use that knowledge, ability to manage their personal finance, competence in making sound financial decisions and understanding about investment and future financial planning.

Table 2.1 Conceptual Definitions of Financial Literacy

Source	Concepts and Dimensions of Financial Literacy
Noctor et al. [1992; as cited in Beal & Delpachitra, 2003]	Ability and skills to take informed decision making regarding use and control of money.
Kim. J. (2001)	Basic financial knowledge for modern society
Hilgert et al. (2003)	Household financial knowledge and financial behaviour
Moore (2003)	Financial knowledge, experiences, attitude and behaviour
Worthington (2006)	Presented a broader perspective of financial literacy; understanding of economics and how nations economic structure and conditions affect the household financial decisions
Lusardi & Mitchell (2006)	Knowledge of simple and compound interest, inflation concept and risk diversification concept
Jump\$tart Coalition (2007)	Financial knowledge and skills for lifetime financial security
Servon & Kaestner (2008)	Financial literacy and technological literacy
Lusardi & Tufano (2008)	Describe debt literacy as a component of financial literacy
Huston (2010)	Knowledge dimension and application dimension

Remund (2010)	Understanding of financial concepts, capability to use that knowledge, ability to manage their personal finance, competence in making sound financial decisions and understanding about investment and planning.
OECD/ INFE (2011)	Operationalised financial literacy in terms of skills, knowledge and attitude necessary to achieve financial well-being.
Agarwalla et al. (2015); Atkinson & Messy (2012); Potrich et al. (2016)	Focused on three main parts of financial literacy; knowledge, attitude and behaviour

Source: Past studies

2.1 DIMENSIONS OF FINANCIAL LITERACY

A widely agreed definition of financial literacy is provided by Organization for Economic Co-Operation and Development (OECD) and International Network on Financial Education (INFE) operationalised financial literacy as “a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being” (OECD/INFE, 2011). OECD has been conducting surveys around the world for measuring the financial literacy among individuals by operationalised financial literacy into three dimensions; financial knowledge, financial behaviour and financial attitude. OECD most comprehensive model of financial literacy has been adopted by various researchers to measure the financial literacy on three basic dimensions (Agarwalla et al., 2015; Atkinson & Messy, 2012; Garg & Singh, 2018; Potrich et al., 2016; Rai et al., 2019).

Earlier to this, Huston (2010) exposed that there is an absence of standardized construct and instrument clarity for measuring financial literacy into literature. The absence of operationally valid instrument presents a challenge amongst researchers to make comparison of financial literacy level around the world (Remund, 2010). But now, OECD provides financial literacy basis for conducting studies internationally along with its three dimensions. In order to manage their personal and household finances one has the ability and skills to act and be financially capable. , people require knowledge and skills to manage their personal and household finances. Kumari and Viz (2010) focused on financial knowledge dimension of financial literacy for making investment decisions available in the financial markets. Several research studies into literature have attempted to find out the interrelationship between financial knowledge, attitude and behaviour. Hilgert et al. (2003) analysed the relationship between financial knowledge and financial behaviour regarding household financial management. The author linked the financial knowledge to particular financial behaviour regarding some financial management practices. The high level of financial knowledge leads to positive financial behaviour and there is no significant relationship between financial attitude and behaviour (Agarwalla et al., 2015). High financial knowledge has impact on financial behaviour of people (Potrich et al., 2016; Servon & Kaestner, 2008). Rai et al. (2019) recognized financial attitude, financial knowledge and financial behaviour as very important factors for measuring financial literacy. The outcome of her study explains that financial attitude and financial behaviour have positive and significant relationship with financial literacy of working women and the findings of this study has been supported by various past studies. But according to this study financial knowledge is considered less significant factor for making financial decisions by women in India.

2.2 Measuring Financial Literacy

Hung et al. (2009) stated that previous research surveys that are designed to measure financial literacy level amongst the population used two approaches:

- 1) Test based approach
- 2) Self-assessment approach

Huston (2010) exposed that there is an absence of standardized construct and instrument clarity for measuring financial literacy into literature. In this context another study was conducted by Remund (2010) analysed the literature available on measurement of financial literacy; how financial literacy has been measured by various researchers since 2000 and study explored that major previous studies measured the financial literacy without valid instrument.

2.2.1 Test Based Approaches for Measuring Financial Literacy

Test based measures of financial literacy are used in the form of multiple choice questions for measuring understanding of basic and fundamental financial concepts, knowledge of financial products available for investing and application of numerical skills.

2.2.1a The Big Three

Lusardi and Mitchell (2006) designed a questionnaire of three questions to test the financial knowledge about basic fundamental financial concepts (interest compounding [numeracy], inflation and risk diversification) of baby boomers in US ages 50 and older. These questions also included into a large survey conducted by National Financial Capability study (NFCS) and many other studies adopted these three questions to measure the financial literacy level among adult population in US. After that these questions collectively known as the Big Three. The big three generally used to measure basic financial knowledge. They do not demand for advanced financial literacy. The trio of questions have been included into various research studies either originally (Allgood & Walstad, 2013; Arrondel et al., 2013; Bumcrot, et al., 2013) or with some alteration (Cole et al., 2009; Kar-Ming Yu et al., 2015; Klapper et al., 2013; Mahdzan & Tabiani, 2013; Nicolini et al. 2013). Lusardi and Mitchell (2011a) also included the trio of questions on international survey of financial literacy in eight countries; Germany, Sweden, Italy, Japan, New Zealand, Russia, Netherlands and USA.

2.3.1b Beyond the Big Three

Van Rooij et al. (2011b) analysed financial literacy into two parts; first part of the instrument contained basis financial knowledge questions and second part of survey instrument consisting of advanced financial knowledge items (functioning of stock market, relationship between time horizon and return, risk return trade off and working of interest rate and bond prices).

Nicolini et al. (2013) stated that numerous studies measured the financial knowledge level with the use of multiple choice questions (Beal & Delpachitra, 2003; Chen & Volpe, 2002; Jones, 2005; Worthington, 2006). Chen and Volpe (1998) developed a comprehensive financial literacy instrument consisting of 36 questions measuring respondent's knowledge on personal finance concepts and their opinions and decision making regarding personal financial planning. Beal and Delpachitra (2003) also designed a questionnaire of financial literacy comprises of 25 multiple choice questions in five basic knowledge areas among university students. Al-Tamimi and Bin Kalli (2009) developed a questionnaire consisting of 18 multiple choice questions to measure the financial literacy among UAE individuals.

2.2.2 Self Assessment Approach for Measuring Financial Literacy

The second approach of financial literacy that has been operationalised into literature is the self assessment approach. Under this approach individuals are asked to self- assess or evaluate their financial knowledge and financial literacy skills on a scale from 1-5, where 1= very low and 5= very high or on scale of 1-7. Moore (2003) used a combined measure of test based or self assessment of financial literacy; to test financial knowledge and financial experiences test based approach was used and for financial behaviour self assessment approach was used by author. Another broader perspective or survey instrument which used both approaches is developed by OECD-INFE (2011) with the support of academician, expert group members and practitioners and the survey instrument measures the individual financial knowledge, behavior and attitude. The OECD conceptual framework of measuring financial literacy have been used by many authors in their research studies (Agarwalla et al., 2015; Garg & Singh, 2018; Potrich et al., 2015; Potrich et al., 2016).

2.3 Determinants of Financial Literacy

A large strand of the literature identified the various factors that determine the financial literacy level across nations. Most of the studies examined the significant relationship between financial literacy and demographic variables; (Agarwalla et al., 2015; Al-Tamimi & Kalli, 2009; Arrondel et al., 2013; Atkinson & Messy, 2012; Beal & Dealpachitra, 2003; Bumcrot et al., 2013; Chen & Volpe, 1998; Chen & Volpe, 2002; Filipiak & Walle, 2015; Garg & Singh, 2018; Kadoya et al., 2020; Lusardi et al., 2010; Lusardi & Mitchell, 2011a; Mahapatra et al., 2016; Nga et al., 2010; Nicolini et al., 2013; Potrich et al., 2015; Van Rooij et al., 2011b).

Table 2.2 Summary of the Determinants of Financial Literacy

Variables	Sources	Relation with financial literacy
Gender	Chen & Volpe (2002), Lusardi & Mitchell (2010), Lusardi & Mitchell (2011a), Bumcrot et al. (2013), Agarwalla et al. (2015), Agnew & Harrison (2015), Filipiak & Walle (2015), Kar-Ming Yu et al. (2015), Potrich et al. (2015), Van Rooij et al. (2011b)	Female have lower financial literacy level than men.
Age	Chen & Volpe (1998), Lusardi & Mitchell (2006), Lusardi & Mitchell (2011a), Van Rooij et al. (2011b), Atkinson & Messy (2012), Arrondel et al. (2013)	Young adults and elderly individuals are associated with lower financial literacy level.
Educational level	Chen & Volpe (1998), Al-Tamimi & Kalli (2009), Lusardi et al. (2010), Nga et al. (2010), Van Rooij et al. (2011b), Arrondel et al. (2013), Potrich et al. (2015), Mahapatra et al. (2016), Garg & Singh (2018);	Higher level of educational attainment is significantly associated with higher financial literacy level.
Income level	Al-Tamimi & Kalli (2009), Atkinson & Messy (2012), Agarwalla et al. (2015), Lusardi & Tufano (2015), Potrich et al. (2015), Kadoya et al. (2020)	Lower level of personal and family income is associated with lower financial literacy.
Marital status	Lusardi & Tufano (2015), Brown & Graf (2013), Jariwala (2013), Agarwalla et al. (2015)	Young single, divorced or widowed more prone to have lower financial literacy level.
Employment status/ Family characteristics	Chen & Volpe (1998), Al-Tamimi & Kalli (2009), Herd et al. (2012), Jariwala (2013), Lusardi et al. (2010), Kadoya et al. (2020).	Family background, parental education, family wealth and workplace activities affects financial literacy level.

Source: Past Studies

2.4 Financial Literacy- A Factors Affecting Financial Planning

Most of the empirical studies available into literature measured the financial literacy level of a particular group with a specific financial decision (Ouachani et al., 2020). The previous studies

analysed financial decisions of participants for stock market participation, investment and saving decisions, wealth accumulation, portfolio diversification, risk aversion and choice of mortgage by households.

2.4.1 Role for Stock Market Participation and Portfolio Diversification

Several studies tried to establish a link between financial literacy level and stock market participation and role of financial literacy for portfolio diversification.

Van Rooij et al. (2011b) investigated the effect of financial literacy level of individuals on stock market participation in Netherlands. A total of 16 questions has been asked to measure the basic financial knowledge and advanced financial knowledge (working of stock market, relationship between time horizon and return, risk return trade off and working of interest rate and bond prices) for measuring the overall financial literacy level of participants. The study found that gender, education level, income and wealth are notable indicators for stock market participation and financial literacy is considered as a significant predictor for stock ownership; higher level of financial literacy is associated with more participation into stock market.

Mouna and Jarboui (2015) examined the relationship between financial literacy and portfolio diversification with the use of multivariate analysis among 256 small investors of Tunisia. The respondent's financial literacy was measured with the help of 11 multiple choice questions adopted from (Al-Tamimi & Kalli, 2009; van Rooij et al., 2011) and to measure the portfolio diversification psychological biases and cognitive errors (familiarity, overconfidence and availability) has been tested into the study. The results reported the significant influence of financial literacy and cognitive biases on individual portfolio diversification decisions and study concluded that higher financial literacy level of investors affect their number of assets included into their portfolio.

2.4.2 Role for Saving and Investment Decisions

Another strand of literature analysed the effect of financial literacy on saving and investment behaviour. They examine the saving behaviour (Mahdzan & Tabiani, 2013), demand for life insurance (Lin et al., 2017), investment decisions (Al-Tamimi & Kalli, 2009) and credit card behaviour (Allgood & Walstad, 2013). For analyzing the effect of financial literacy on saving behaviour Mahdzan & Tabiani, (2013) conducted a survey of 200 individuals in Malaysia. Probit regression analysis reported that financial literacy level had a significant positive impact on individuals saving in Malaysia. The author suggested that various financial education programmes should be initiated by policymakers.

Lin et al. (2017) explored the impact of financial literacy on demand for life insurance participation in China. The empirical finding revealed that high level of financial literacy increase the demand for life insurance policies. In addition to this gender, age, personal income and working status were considered major determinants of life insurance participation. In 2009, Al-Tamimi and Kalli examined the relationship between financial literacy and investment decisions of 290 investors in UAE. The study presented financial illiteracy among UAE investors. Apart from these finding, income level, education and workplace activities are the main factors affecting financial literacy level among investors. And results indicated the significant association between financial literacy and investment decisions of individuals.

Allgood and walstad (2013) used probit regression analysis for measuring the effect of financial literacy on credit card behaviour. The author measured financial literacy with the use of (Lusardi & Mitchell 2006) three questions designed for basic financial knowledge and five types of behaviour studied by author to measure credit card behaviour of individuals. The study found that subjective assessment of financial literacy affects all five credit card behaviour of individuals.

2.4.3 Role for Entrepreneurship Development and Wealth Accumulation

Another line of research focused on the relationship between financial literacy level and entrepreneurship development. In this context, Oseifuah (2010) and Abubakar (2015) analysed the relationship between financial literacy and entrepreneurship in Africa. Abubakar (2015) analysed the key barriers and problems related with entrepreneurship development in Africa; access to financial markets, policy assistance, lack of training programmes, unfavourable business conditions, entrepreneurship culture and gender gaps are the main difficulties faced by individuals. And study presented very strong association between financial literacy level and entrepreneurship development especially on micro, small and medium enterprises. The same finding also reported by Oseifuah (2010) in his study, measuring financial literacy level and their effect on entrepreneurship development in different type of enterprises and sectors in Africa. Behrman et al. (2012) studied the effect of financial literacy on wealth accumulation with the use of ordinary least square technique and found that financial literacy is positively and significantly related with wealth accumulation.

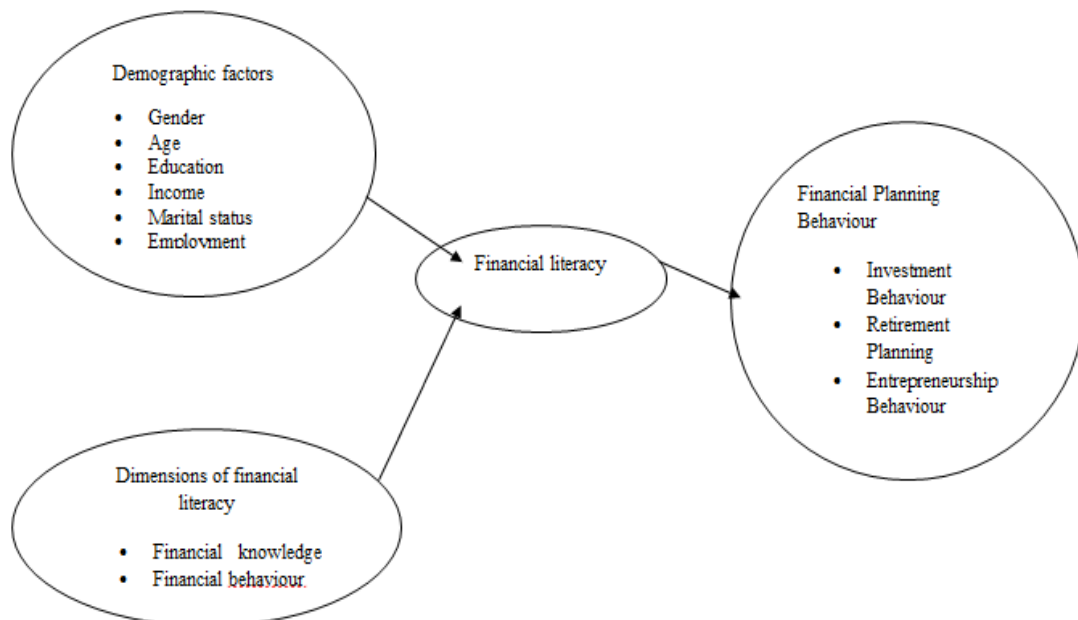
2.4.4 Role for Retirement Planning

Retirement planning refers to preparing for the time when a person would leave the work force and work related income would cease to exist. Research suggests that retirement planning is vital for smooth transition, adjustment and success during retirement (Noone et al., 2009). According to Demircuc-Kunt et al. (2016), only 24.8% of individuals around the world save for old age. Despite being an issue of much significance, research reports that many people approaching retirement are unprepared (Bruggen et al., 2017). The financial unpreparedness of such a large number of people approaching old age might not only lead to societal problems and adverse welfare effects, but also hamper people's overall well-being (Van Praag and Frijters, 2003). Previous studies provide evidence for the relation between retirement planning activities and saving practices (Stawski et al., 2007; Chou et al., 2015; Anderson et al., 2017). Various studies across nations documented the positive relationship between financial literacy and retirement planning as shown by (Boisclair et al., 2015) for Canada, (Brown & Graf, 2013) for Switzerland, (Bucher-Koenen & Lusardi, 2011) found positive impact of financial knowledge on retirement planning in Germany, (Lusardi & Mitchell, 2011b) for United States, (Meir et al., 2016) for the Israel, (Pg Md Salleh & Baha, 2020) for retirement concerns and financial literacy in Brunei. Van Rooij et al. (2011a) conducted a household survey in Netherlands and the responses were analysed with the use of Ordinary Least Squares (OLS) regression and regression estimates found that financial skills of individuals have positive impact on retirement planning further; study reported that economic knowledge acquired in school have not any influence on retirement planning. The major finding of the study highlighted the positive significant impact of advance financial knowledge on retirement planning behaviour of individuals. In same context, another study has been conducted by van Rooij et al. in 2012 and finding of this study is very similar to previous study of relationship between financial literacy and retirement planning, a new variable wealth accumulation has been added by author in this research study and found significant relationship between financial literacy level and wealth accumulation. Lusardi & Mitchell (2011b) examined the financial literacy and retirement planning in United States. The study demonstrated the low level of financial literacy level in US and especially among the women, young adults and less educated individuals. Regarding retirement planning study found that 43% of respondents said that they did not figure out how much savings will be needed for retirement; young adults are least likely to plan for retirement. In context of relationship between financial literacy and retirement planning the results confirmed their strong positive association and those who scored high on financial literacy items are much more likely to plan for retirement. Similar findings also reported by (Bucher-Koenen & Lusardi, 2011) found positive impact of financial knowledge on retirement planning in Germany, (Brown & Graf, 2013) for Switzerland (Meir et al., 2016) for the Israel, (Pg Md

Salleh & Baha, 2020) in context of Brunei, found that financial advice has significant impact on retirement saving and (Larisa et al., 2020) also confirmed the effect of financial literacy on retirement planning in Indonesia. Another strand of literature regarding financial literacy and retirement planning is presented by (Kumar et al., 2018; Gallego-Losada et al., 2021) in the form of systematic literature review of studies. Kumar et al. (2018) reviewed all the relevant articles in this field until 2017 and papers were collected with the help of various databases; Emerald Insight, Proquest and Google Scholar. The study was based on the review of 151 research papers appearing in different peer-reviewed journals. The study concluded that there is a lack of financial planning amongst women around the world and majority of research work in this field has been conducted in developed nations. Gallego-Losada et al. (2021) studied development trend and current status of financial literacy and retirement studies around the world by using bibliometric analysis. The study also searched the top author, prominent journals, countries and institutions regarding financial literacy and retirement planning. The sample consisting 242 articles appearing in different peer-reviewed journals included in the Web of Science (WoS). Regarding number of publication per year, a growth trend was recognized specially after 2008 crisis, and 2017 was considered a peak period for publication per year with a total of 32 research studies. In context of countries publication nearly half of the studies conducted in United States and in terms of authors, Lusardi, A. placed at top rank with 19 research articles.

3. CONCEPTUAL FRAMEWORK OF FINANCIAL LITERACY

The conceptual framework of financial literacy developed by (OECD/INFE, 2011) serves as the backdrop for the development of the proposed framework for this study. It suggests that financial literacy is composed of three variables; financial knowledge, financial behaviour and financial attitude. On the basis of review of literature the following model is proposed for financial literacy.



Source: Developed by author on the basis of review of previous studies

CONCLUSION

The need for financial literacy and its importance for financial inclusion have been acknowledged by all possible stakeholders - policymakers, bankers, practitioners, researchers and academics across the globe. But literature has documented the low level of financial literacy

around the world. Regulatory authorities and policymaking bodies around the world should take initiatives for promoting financial education at grass root level. For this financial education and money management subjects should be included at school level education policy and make compulsory for all education bodies to consider these subjects in their curriculum.

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GANDHIAN SARVODAYA AND UNITED NATIONS PEACE MISSION**Shriya Badgaiyan**

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ABSTRACT

This Era of 21st Century is referred to be the age of LPG- Liberalisation, Privatization, Globalization which creates all together a globe with the Implication of new economic policy and this new world or globe carries new problems and complexities with itself. Further it is believed that all of these problems whether social, ecological, economic, political or moral could be remedied with the technology and its various advancements. Although, this belief overshadows the past failures. These happenings of today's failure were very well predicted by M.K. Gandhi in Hind Swaraj during the preparation of his manuscript in the year 1908, Moreover Gandhiji propounded 4 main goals of humanity so that one could smoothly initiate steps towards its destiny. These goals are: Sarvodaya, Swaraj, Swadeshi and Ahimsa. A combination of two terms, "Sarva" denotes one and all, whereas "Uday" denotes welfare or uplift. "Sarvodaya" means "Universal Uplift" or "Progress of All". This term was firstly propounded by M.K. Gandhi in his translation work in the year 1908 of John Ruskin's "Unto This Last" and eventually used the term "sarvodaya" to elaborate his own political philosophy. In the course of time, other followers of Gandhian philosophy like Vinoba Bhave and Jay Prakash Narayan utilised the term in order to initiate several social movements which catered equality amongst the different strata of the society in the post-independence era of India.

Keywords: Ahimsa, globalisation, liberalisation, privatisation, Sarvodaya.

INTRODUCTION

Gandhiji got a copy of Ruskin Bond's "Unto this last" from one of his British friends, while he was practising law in South Africa during 1904. Gandhiji mentions in his Autobiography that he very well remembers the 24 hours train journey to Durban, where he first read this book, he was influenced to such an extent that it did not let him sleep since he read that book. Influenced by this book Gandhiji introduced the concept of Sarvodaya which is based on these basic principles:

- That the good of the individual lie in the collective good of all.
- That a lawyer's work has the same value as the barber's in as much as all have the same right of earning their livelihood from their work.
- That is a life of labour, i.e., the life of the tiller of the soil and the handicraftsman is the life worth living.

The Concept of Simple Living and High Thinking

M.K. Gandhiji sternly believed that the nature has or provides enough to satisfy every man's needs, but not for every man's greed. But, with the inculcation of concept of "sarvodaya", every member will be free from every sort of greed for boundless attainment of things and a luxurious living and principle of simple living and high thinking is followed. So, everyone would be entitled to enough opportunities to produce and earn and hence the issue of unemployment.

Of course, obviously the level of income differs from person to person on the basis of their skill, talent and effort. But people who earn more would contribute more to the national income of the economy which would render good to the society as a whole. In such a society there lies no concept of private property and the common resources are left to the use of commons,

contributing to the welfare of the society as a whole. In such a situation person has excess resources than needed, so that particular person becomes a trustee of the excess wealth for the benefit of the less privileged sections of the society. In the context of use of machinery in performing economic activity, Gandhiji said “If we feel the need of machines, we certainly will have them. But there should be no place for machines that concentrate power in a few hands and turn the masses into mere machine-minders, if, indeed, they do not make them unemployed. In order, therefore, to decrease the utility of machines in sarvodaya society, Gandhiji contented that every person should perform some productive physical work so that a basic earning can be made. The same was also stated by Leo Tolstoy, a great Russian thinker.

Objective of Sarvodaya Movement

The Sarvodaya Movement objects towards creation of self- supporting network of village communities. By virtue of such creation, the “family” is extended to the whole village, whereas presently, the same is confined to members or persons of same blood and hence with introduction of such network, this concept of confining the family to blood relationships would be eliminated. The concept of agriculture will be so developed as to facilitate the people enough to consume. The industries so established would run as cottage-based industries till the substantial portion of people in the villages, get employment. The village council would function as a representative to cater the needs of the village people.

Principles or Doctrines of Sarvodaya

- There is no centralised authority functioning in the village. There is a economic, social and political atmosphere prevalent in India.
- Politics is not be considered as a device of power, rather as an agency of service. Also, Rajneeti would defer the very concept of Lokneeti.
- Society would function on the footsteps of Non-Violence and also that people in the society would be imbued with truth, love, fraternity and sacrifices.
- There lies on concept of majority rule and party system and as a result the society would be free from the absolute power which is conferred on majority in usual circumstances.
- The Sarvodaya society is socialist in nature. The various calling would have the same social, political, moral and economical values. The personality of the individual has the full scope for the development.
- The Sarvodaya Society finds its root in the concept of liberty as well as equality. There is no scope for any kind of exploitation and class-hatred.
- Sarvodaya aims at the progress of all. All the individual performs their respective individual labour. These individual also focus on the idea of non- possession
- There would be no existence of concept of “private property” which forms the basis of all kind of discriminations as well as hatred. Hence, Sarvodaya Movement is solely based on self-denial, non- violence and truth.
- The Sarvodaya movement makes an earnest attempt to establish a necessary atmosphere to unite several individuals having a steady and staunch faith in the welfare of all.
- The gain by an individual may be not too big or may be a little in nature, but the development entirely depends upon the quality of every other gain. If all the qualities are improved a bit, then every individual would gain more.

Sarvodaya Movement

Gandhiji's ideas were not confined to achievement of Indian independence. The Same was taken to a longer path by his followers especially Vinoba Bhave, who continued to promote Gandhi's very kind of society. Their efforts were collectively recognised as "Sarvodaya movement". Anima Bose has referred to the movement's philosophy as "a fuller and richer concept of people's democracy than any we have yet known". Sarvodaya Workers included J.P. Narayan, Dada Dharamdhikari, Dhirendra Mazumdar, Shankara Deo who took sincerely undertook different projects which aimed at inspiring self- organization in the years of 1950 and 1960 which included various gramdan and bhoodan movements.

Sarvodaya as a Means of Common Welfare

Sarvodaya is an agency of service for common welfare. Sarvodaya highly condemns the politics of power and exploitation of the various sections of the society. It largely emphasises on the moral and spiritual values. It aims to establish new economical as well as social values. The concept of possession makes place for the concept of trusteeship. By virtue of this, people would render services for the betterment of the society as a whole and a feeling of one "family" would flow in. This would also give full scope for freedom, equality and fellowship. The state is considered to be an agency of power. Gram Rajya stands on the base of non- violence. Sarvodaya promotes the betterment of all and not restricted to the betterment of an individual. All these including Gramdan and Bhoodan at the initial or at later stage would in the one way or the other initiate a change of heart. All the section of the society whether rich or poor would waive their ideas of attaining a private property and would eventually endeavour to work towards the betterment of the society as a whole.

UN Peace Mission

Peace keeping is considered as most effective instrument available with the UN in order to assist the countries torn by wars to resort to the path of Peace. Peace keeping has innovative ways, including sharing of burden and also a capacity to set up troops and police forces in and around the globe. This peace keeping extends to integration of these police forces and troops so established with the civilian peace keepers for advancement of multi-faceted mandates. UN Peace Keeping caters various kinds of security and political support to the countries torn by various conflicts and wars. It helps those countries to transact from such conflicts as early as possible.

The United Nations Peacekeeping is on the basis of these below mentioned principles:

- Consent of the Parties
- Impartiality
- Non-use of force except in self-defence and defence of the mandate.

Consent of the Parties

UN Peacekeeping operations are carried out only with the assent and consent of the parties to the conflict. A commitment by the parties to a political process is required here in this case. Hence their consent or assent cater various powers over UN with freedom to take both political and physical actions and also enables the UN to carry out its mandated tasks. If such Consent is not given, a peace keeping operation risks becoming a party to the conflict and being strained towards enforcement action and left from its fundamental role of keeping the peace. The fact that consent by the main parties has been given to deploy a peace keeping operations does not imply that the consent from the local level has also been obtained. This situation pertains when the main parties are internally divided or it has a weak control or command systems. Universality of assent becomes even less credible in unstable settings, considered by the incidence of fortified groups not under the control of any of the parties, or by the attendance of other spoilers.

Impartiality

Impartiality is vital in maintaining cooperation and assent amongst the main parties, but this very concept must not be mixed with neutrality or inactivity. UN peacekeepers should be impartial while performing their duties or in the dealings with the parties to the conflict, but not neutral while executing their mandate. As a good referee is impartial in the game, but he also penalises infractions hence the same logic is applicable to the peacekeeping operations, it, should not disregard actions by the parties, which violate the undertaking of the peace process or the international norms which a UN peacekeeping operation abides by. In spite of the requirement to establish and foster good relations with the parties, the peace keeping operations must thoroughly avoid these activities that might tarnish its reputation of impartiality. A mission should not back out from a meticulous application of the principle of impartiality due to fear of retaliation and misinterpretation by the countries. Failure to do so, may weaken the peacekeeping operation's consistency, reliability and authenticity, and may lead to a leaving of consent for its existence or presence by one or more of the parties.

Non- Use of Force except in Self-Defence or the Defence of the Mandate

UN peace keeping operations are not considered as a tool of enforcement. However the use of force can be done by them in the tactical level, with the due authorization sanctioned by the Security Council, If the same is done in furtherance of self- defence and the defence of the mandate. In certain situations, UN peace keeping operations are vested "robust" mandates by the Security council, which authorised the UN to "use all necessary means" in order to prevent the vigorous attempts to interrupt and disrupt the political processes, safeguard the civilians under impending threat of bodily and physical attack and aid the national authorities in preserving the law and order. Though, sometimes the robust peacekeeping and peace enforcement appear to be similar but both should not be confused to be one and the same. Robust peace keeping says that there can be use of force at the tactical level but the same must be sanctioned by the Security council and also by the main parties or the host nation involved in the conflict. Whereas, peace enforcement says that there no need of any sort of consent of the main parties involved in the conflict but at the same time may require the use of military force at the international or tactical level, which is usually restricted or barred for member states under the Article 2(4) of the charter, unless same is sanctioned or authorised by the Security Council.

A UN Peace operation shall only use force if no other option is available or feasible. In other words, force as a measure shall be used only in extreme cases. It should be tuned in a specific, proportional and suitable manner, within the principle of least amount of force required to achieve the desired result, while satisfying consent for the mission and its mandate. The use of force by UN peacekeeping operations has a political implication always which could often give rise to unpredicted and unforeseeable situations. Judgments relating to its employ require to be made at the suitable level within a assignment based on a compilation of factors including mission capacity, perceptions of the public; civilized impact; force protection; wellbeing and security of personnel; and, above all these, the consequence that such act will encompass on national and local assent for the mission. Peace keeping is elastic and flexible and over past 20 years it has been established and deployed in many configurations. Presently, there are 16 UN peacekeeping operations deployed in 4 different continents in and around the world.

The all in all motive of facilitating the multi –faceted peace keeping operations today is not only to foster peace and security, but to cater protection to the civilians, facilitating of political process, providing assistance in disarmament, disbandment and reintegration of former combatants, extending support to the organization of elections, to promote and protect human rights from violation and lastly, restoring the rule of law. Since the UN peace keeping extends to most politically and physically difficult Environments. However, these UN Peacekeeping operations had been a success since its inception and this is also sufficed by, the fact that as they

are recipient of Nobel Peace Prize. Peacekeeping has always been exceedingly vibrant and has evolved in the facade of new-fangled challenges. Recently, Secretary-General Ban Ki-moon came up with a Independent Panel consisting of 17 members, on UN Peace Operations, in order to create a broad estimation of the state of UN peace operations at present and the budding requirements of the future.

Successful Peace Keeping Missions

Since 1948, The UN has aided to put an end to the conflicts along with fostering reconciliation by inducting successful peace keeping operations in several countries which includes El, Salvador, Guatemala, Namibia, Tajikistan and Cambodia as well. UN peace keeping has also made remarkable difference by the exercise of peace keeping operation in places like Haiti, Kosovo, Burundi, Sierra Leone etc. These UN operations extended support to political transitions and aided strength and support to flimsy new states. These have helped the war-torn countries to put a full stop to the conflict and move towards the path of development, even if the peace building challenge still persists. It is very much evident the there has been a overwhelming response to UN peace keeping Operations around the globe. There has been a great response from the international community as a whole. Peace keeping operations have been found to be wanting. For instance, in Somalia, Rwanda and the former Yugoslavia in the early 1990s. These instances set up a yardstick for the international community as to when and how to deploy the UN peacekeeping as a device to restore and maintain peace and harmony in the international arena.

Attributes Required For a Successful Peace- Keeping Operations

As learnt from the past experiences, the following can be essential factors for a successful peace-keeping operations:

- It must be regulated by the principle of impartiality, consent and non- use of force except in cases of self-defence and defence of the mandate.
- It must be perceived legal, lawful and plausible, especially in the eye of the local population.
- It must promote national and local ownership of the peace process in the country which is involved in the conflict.

Other Important Factors Include

- The Parties must ensure indisputable assurance to a political process in working towards peace (there must be a peace to keep);
- obvious, convincing and attainable mandates, with similar personnel, logistic and monetary resources;
- the Security Council must have unity of purpose, with active support to UN operations in the field;
- The host country must commit towards unhindered UN operations and freedom of movement.
- The neighbouring countries and regional actors; should extending support in this regard.
- A compressed UN approach, efficient and successful harmonization with other actors on the ground is necessary by the side of a good communication with host country authorities and population;
- The highest degree of warmth towards the local population and maintain the highest standards of professionalism and good demeanour and conduct (peacekeepers must shun flattering part of the problem).

Unique Global Partnership

UN peacekeeping is referred as a unique global partnership. It covers the general assembly, the Secretariat, the Security Council, the troops and the police contributors along with the host countries in a collective effort tries to maintain international peace and security. The whole of its strength can be marked the UN Charter and several contributing countries that make their contributions by providing resources.

Mandates and The Legal Basis For Peacekeeping

It is the primary responsibility of the Security Council to maintain the international peace and security. In furtherance of this responsibility, the Council can set up a UN peacekeeping operation. UN peace keeping operations are deployed on the basis of mandates obtained by the Security Council. Task of these UN peace Keeping operations varies from one to another, depending upon the nature of the conflict and challenges attached to it.

UN Charter

This charter of United Nations acts a foundation document for all the tasks carried out or to be carried out by UN. The UN basically aimed at maintaining international security and peace. The UN was established to “save succeeding generations from the scourge of war”. Though peacekeeping has not been expressly provided in the charter, but has evolved into one of the main tools used by the United Nations to grab this purpose.

Some of the Important Chapter So F the Character in This Regard Are

- Chapter VI: It deals with the “Pacific settlement of the Disputes”. UN peace keeping operations have been associated indirectly with this chapter. However, it is not mandatory on the part of the Security Council to refer to this particular chapter when it authorizes the deployment of a UN peacekeeping operations and hence has never invoked this chapter of the UN Charter
- Chapter VII: It consists of “Action with Respect to the Peace, Breaches of the Peace and Acts of Aggression’. In the recent years, this chapter has been invoked several times by the Council. In the situations, where authorizing the deployment of UN peace-keeping operations into volatile post- conflict setting and also that the state is unable to maintain public order and security. Such a step of invocation of this chapter Security Council in these situations can be considered as firm step to political resolve and a way of reminding the host countries or the parties to a conflict and the wider UN membership of their duty to give outcome to Security Council decisions.
- Chapter VIII: It says that regional arrangements and agencies can indulge into providing international peace and security, provided such activities are consistent with the purposes and ethics stated in Chapter I of the charter.

Peace Keeping Mandates

The UN Peacekeeping operations are deployed basing on the mandates from the United nation Security Council. With the Passage of time, the range of tasks assigned to UN peace keeping operations have expanded significantly in response to changing or emergence of new patterns in conflict and also to redress the threats to international peace and security in the most suitable ways. Though, each of the UN peacekeeping operation is different in its own ways still, there are similarities in the kinds of mandated tasks assigned by the Security Council. Depending upon their mandate, peacekeeping operations may be required to:

- In order to prevent the outbreak of conflict or the spill-over of conflict across borders; deployment must be done
- In order to create an environment for the parties to reach a lasting peace agreement; Stabilization of conflict situations should be done after a ceasefire.

- Assistance must be given in order to implement comprehensive peace agreements;
- Lead states or territories through a evolution to stable government, on the basis of economic progress democratic principles and good governance.

UN peacekeepers are often mandated to play a role of a catalyst in the following essentially peace building activities, where there are specific set of challenges:

- Reintegration, disarmament and demobilization, of ex-combatant.
- Security sector transformation and other rule of law-related activities;
- Human rights must be protected and safeguarded.
- Electoral assistance.
- Support must be extended for the purpose of re-establishment and expansion of State authority;
- Social and economic recovery and development must be promoted.

Reform in Peace Keeping

UN began to exercise to critically analyse its operations of peacekeeping carried on till the year, 2001. So that a set of reforms can be brought so as to strengthen its ability to manage and sustain field operations. This was introduced in furtherance of surge demanded for UN peacekeepers who have “blue helmets” asked to deploy too remote and impulsive environments. There were various challenges faced by peacekeeping. Some of those challenges included:

- It’s largest, most complex and highly expensive operations are deployed.
- Implementation and designing of the transition strategies are done for the areas where stability exists.
- Providing the community with various equipment to ensure its security, stability peace for the long run.

Establishment of Independent Panel in Regards to Peace Operations

The Secretary General of UN came up with a high-level independent panel on UN Peace Operations in October in the year, 2014. This panel was set up with the objective to introduce a comprehensive assessment of the states which are subjected to UN peacekeeping operations at present times. While announcing this set up the secretary general quoted that “the world is changing and UN peace operations must change with it if they are to remain an indispensable and effective tool in promoting international peace and security.” This Panel was chaired by Mr. Jose Ramos - Horta of Leste. It also had Ms, Ameerah Haq, who belonged to Bangladesh as Vice-Chairperson. All in all, this panel had both experience as well as expertise. The panel dealt with various issues related to peace operations, such as dynamic nature of the conflicts, administrative and managerial arrangements, peace building challenges, issues of mandates, planning, human rights and safeguarding of the civilians. The review inculcates both UN Peacekeeping operations as well as political missions, and this combination of the above mentioned, is collectively as “UN peace operation”. The report was submitted to the Secretary General on 16th June, 2015. The secretary now studies thoroughly the recommendations of the report and eventually pass it on to the General Assembly and Security Council.

Brahimi Report

The Panel was appointed in the year 2000 by the secretary General on the United Nations peacekeeping operations in order to discover the flaws and loopholes in the existing system and also to come up with specific changes and recommendations for such changes. The panel

consisted of experts who had expertise in the field of peace building, peace keeping along with prevention of conflict.

The Report submitted by such panel came to be known as “Brahimi Report”. The Report was named after Lakhdar Brahimi who was the Chair of the said panel. The report called for the following points:

- Renewal of the commitments made by the member states.
- Major institutional change.
- Improved and increased financial support.

Conclusively, it was observed by the Panel that in order to ensure efficient and effective outcomes from such peacekeeping operations, it has been taken into account that the UN peacekeeping operations must be well equipped and well resourced.

CONCLUSION

So, lastly it can be concluded that the ideals of Sarvodaya are not Practicable in the present time. There is no doubt that the ideas proposed by Gandhi are highly gracious but unfortunately, due to dynamic nature and other factors taken into consideration it could be pointed out that principles propounded by Gandhi and his followers have a very slight relevance in the contemporary world. It is near to impossible to establish a society strictly on the basis of Gandhi’s principles. Whereas on the other hand, the doctrines or principles of Sarvodaya are so elevated and high-ceilinged that it casts various doubts on the fact that whether it can survive the ever-changing world. The pitiable records of Panchayati Raj system in India clearly indicates the poor condition of people in which they survive. In this era of cut-throat competition, it is not possible to implement and execute the concept of Gram raj, unless the idea of Sarvodaya is consented to be implemented by all the states in the world. The chances of its application in India is very dreary. At the same time, it is also very difficult to bring a change in the minds of the youth as the section of youth is inclined towards idea of selfishness and self-centeredness rather than the idea of self-denial which acted as foundation of the very idea of Sarvodaya. So, need of the hour for youth is “Think Globally and Act Locally”.

On the other hand, Conclusively, the UN’s effort is maintaining the world peace can be described under 3 different parts: Firstly, the United Nations send its troops or armed forces to the areas of conflict in order to regulate the volatile situations prevailing at that particular site of war or conflict. These troops negotiate peace and harmony between the countries indulged in conflict by preventing them from attacking each other. Secondly. The UN also threatens the countries indulged in war, of collective security. It also threatens to impose economic sanctions or military actions. This is done to ensure that a particular country does not continue with its action that may lead to war. Finally, the various agencies of UN promote peace, economic and social developments. These agencies target to reduce poverty and several other reasons of conflict. UN even acts a forum for countries to interact with one another, with an intention that such harmonious and constant interactions aid different countries to resolve their dispute amicably and without the use of arms.

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GENDER DIVERSITY IN HEALTHCARE OVER 30 YEARS: USING BIBLIOMETRIC ANALYSIS

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ABSTRACT

Sufficient proof is recommended that the healthcare system is better organized if they have greater gender parity and constructive and productive clinical results. Management should create an environment for both males and females that supports them at the same time. Few studies have analysed the recent time about gender diversity in healthcare. These studies bring out exhaustive data on gender diversity in healthcare, including countries, authors, references, and journals. For collecting the data, we used Scopus and we extricate 275 papers published between 1992 to 2022. A bibliometric analysis was done with the help of VOS Viewer software. It was used to analyse gender diversity in healthcare visually and quantitatively. The US followed by UK and Canada is one of the most productive countries concerning publication. University of Wisconsin, Madison, United States is the most productive institution followed by the Division of Infectious Diseases, University of Nebraska Medical Centre, Omaha, United States, and VU Medical Centre, Emgo Institute, Department of Medical Ethics, Amsterdam, Netherlands. It was noticed that analysts primarily emphasize 'healthcare', 'gender diversity', 'gender', and 'diversity' aspects. The International Journal of Environmental Research and Public Health is the most suitable journal to come up with, accompanying the Journal of Vascular Surgery and Plos One. This research provides a detailed study of fundamental background understanding of gender diversity in healthcare and a substructure for perceptive and quantifiable investigation. In consequence, reducing the gap in the middle of gender diversity in healthcare and bibliometric analysis. Our study shows how gender diversity in healthcare investigation has turned up and grown and has suggested possible upcoming investigations.

Keywords: gender, healthcare disparities, diversity, gender diversity, healthcare, sex difference, gender bias.

INTRODUCTION

There has been a worldwide change in the last 10 years to enhance gender diversity in both private and public domains. Moreover, sufficient proof is recommended that the healthcare system is better organized if they have greater gender parity and constructive and productive clinical results. Though, gender disparity still exists among medical faculty members, medical students, and medical doctors' members. despite most identical prospective participation in academia, the percentage of women unintentionally going forward to professor rank is relatively less and women are marginalized in academic medicine.

Several issues of diversity exist in the healthcare sector be it for nursing, medical, or other classification of healthcare staff. Yet many things can be done that work in the favour of healthcare management to excel this problem in such a way that makes organizations more productive and diverse teams. The matter of gender diversity is on the priority list in the nation of entrepreneurship and labour. Research depicts that the subject of gender diversity has been given significant research recognition. Additionally, they also sketch a point to "gender sensitivity". It has been seen that there is a show decline in publications since the last 21st century. It has become very important to dress these issued and to find a necessary solution for the same. Patient care and treatment are Patient treatment and care are expanding the result of work performed in teams that promote various professions, each with their ability to take good care and make decisions and each with their white-collar lifestyle. Moving forward, diversity is

a repercussion of external demographic enhancement, especially the increase in the number of immigrants and women in health care, and the approach of the millennials into the workforce. Each of these personalities come up with their different value to work, expectations, attributes, and behaviours. It has been observed that there is a difference between the values of generation Y and women, who have similar salaries, professionalism, career, and attitude to work. Which is different from the male generation. Fresh blood maintains a different equilibrium between private life and work life.

Upgrading gender diversity into in enhances the quality of research and encourages encourage scientific progress. Research has depicted that if a group is more diversified then it will produce substantial variation in solutions to the quarry and approaches. Further research has shown that encouraging sex diversity enhances scientific rigor through harmony in the education sector. This bibliometric study tries to seek information about gender diversity in healthcare. It also puts focus on the lack of gender. Gender parity in healthcare is very essential not only because it leads to scientific advancement and parity since publishing is important in all stages of academic advancement but also to make space for diversity of perspectives in the literature. This study shows the past and presents gender disparity in healthcare and concerned field journal, quantifying a disparity at every position. In the future, there is a need to analyse gender disparity in healthcare to understand this situation better and address the inequity

Lack of gender parity in scientific committees and medical faculty could have a straight unfavourable effect on women's collaboration, and health training programs. An increase in diversity will promote more productivity, inclusiveness, active atmosphere will be generated and will lead to more creativity.

METHODOLOGY

Bibliometrics is a statistical analysis of existing studies and is used for the quantitative analysis of articles in a particular field (Mayr & Scharnhorst, 2015). Gender diversity in healthcare is the topic of the day, and it is crucial to examine literature in this area since it is a still to maintain the correct balance between men's and women's personal and professional life. The main information analysed using bibliometrics are authors, keywords, references, journals, countries, institutions, and trends in a specific field (Abramo et al., 2011). Bibliometrics originated from the quantitative research of literature and is widely used in academic research (Dien & Wolter, 2013). This method could help scholars to explore the most recent developments and trends in a particular field (Chen, 2006). VOS viewer is very useful in text mining bibliometric networks, visualizing, and constructing. The software is free of cost accessible online and was proposed by Ludo Waltman and Nees Jan van Eck. In this study, we have explored the words: (Gender diversity in healthcare), refined by Scopus Categories including psychology applied and business or management studies, plus language used was English and the type of document was articles. This research has been done in September 2022 and includes 1992 – 2022 papers. When the first reach came out it resulted in 486 articles, then a search string was used to minimize the sample size from 486 to 275 to find the essence of “Gender diversity in healthcare”. Thus, to analyse this study 275 articles were used.

FINDINGS AND DISCUSSIONS

Overall, 275 publications were extricated from the Scopus. The publication graph was between 2003 to 2005 and gently expand from 2006 upward. As soon as we examine, the exploratory investigation engenders in Scopus, we transferred the word processing files that were created within Scopus to the VOS viewer software. It was then used to carry out co-occurrence, co-authorship, bibliographic coupling, co-citation, and, citation analysis. The present paper chooses the literary text that considers gender diversity in healthcare and used VOS Viewer to analyse the same. Each unit that has been analysed is distinctive to provide an understanding of the society along with the education sector on gender diversity. Chart 1 represents the citation of

gender diversity in healthcare literary text sources. From those 3 sources, the International Journal of Environmental Research and Public Health records 7 documents and 21 citations. Also, the Journal of Vascular Surgery followed sequentially with 5 documents, and 3 citations. Plos One had 5 documents, and 38 citations. This indicates that the International Journal of Environmental Research and Public Health had a substantial number of reports as compared to these two i.e., Journal of Vascular Surgery and Plos One.

Table 1: Sources Citation of Gender Diversity in Healthcare

Rank	Source	Documents	Citation
1	International Journal of Environmental Research and Public Health	7	21
2	Journal of Vascular Surgery	5	3
3	Plos One	5	38

Table 2: Organizational Citation of Gender Diversity in Healthcare

Rank	Organization	Documents	Citation
1	Centre for Social Studies, University of Coimbra, Coimbra, 3000-995, Portugal	2	2
2	Department of Anesthesiology, University of Nebraska Medical Centre, Omaha, Ne, United States	2	18
3	Division of Infectious Diseases, University of Nebraska Medical Centre, 985400 Nebraska Medical Centre, Omaha, Ne 68198-5400, United States	2	124
4	Faculty of Medicine, University of British Columbia, Vancouver, Bc, Canada	2	11
5	Harvard Medical School, Boston, Ma, United States	2	39
6	Hubert Department of Global Health, Rollins School of Public Health, Emory University, Atlanta, Ga, United States	2	4
7	Stanford University, Stanford, Ca, United States	2	27
8	University of Wisconsin, Madison, United States	2	139
9	Vanderbilt University Medical Centre, Nashville, Tn, United States	2	5
10	VU Medical Centre, Emgo Institute, Department of Medical Ethics, Amsterdam, Netherlands	2	80
11	Yale University School of Medicine, New Haven, Ct, United States	2	23

Table 2 shows the organization citation of gender diversity in healthcare. Out of 921 organizations, the study presented citations of organizations that were between 2 to 139 which accounts for 11 organizations. Centre for Social Studies, University of Coimbra, had 2 documents and 2 citations. It was followed by the Department of Anesthesiology, University of Nebraska Medical Centre, Omaha, Ne, United States with 2 documents and 18 citations.

The Division of Infectious Diseases, University of Nebraska Medical Centre, Omaha, United States had 2 documents and 124 citations. The Division of Infectious Diseases, University had higher citations than the Department of Anesthesiology, University but a similar number of documents, it should be noted that out of 11, 8 institutions are from the US and the other 3 are institutions from Portugal, Canada, and Netherlands

Table 3: Document Citation of Gender Diversity in Healthcare

Rank	Document	Citation	Links
1	Armijo p.r. (2021)	12	0
2	Abimbola s. (2021)	40	0
3	Khoong e.c. (2021)	18	0
4	Cobianchi l. (2021)	16	0
5	Paton m. (2020)	23	0
6	Zeeman l. (2020)	12	0
7	Khan m.s. (2020)	45	0
8	Stanford f.c. (2020)	17	1
9	Smith c.m. (2020)	15	1
10	Eisenberg m.e. (2020)	22	0
11	Crowe r.p. (2020)	14	0
12	Kubik-huch r.a. (2020)	34	0
13	Lindsay s. (2019)	18	1
14	Budu h.i. (2019)	14	0
15	Marcelin j.r. (2019a)	112	0
16	Marcelin j.r. (2019b)	12	0
17	Gangwani p. (2019)	10	0
18	Webb f.j. (2019)	31	0
19	Ross m.h. (2019)	17	0
20	Robards f. (2019)	15	0
21	Solotke m. (2019)	15	0
22	Nakkeeran n. (2018)	15	0
23	Schrand l. (2018)	11	0
24	Gomes r. (2018)	12	0
25	Jones r.d. (2018)	19	0
26	O'hanlan k.a. (2018)	13	0
27	Seibel b.l. (2018)	11	0
28	Piccini p. (2018)	21	0
29	Lundberg g.p. (2018)	27	0
30	Jones c. (2017)	14	0
31	Johnson e.k. (2017)	16	0
32	Griggs j. (2017)	93	0
33	Hulbert-Williams n.j. (2017)	24	0
34	Eckstrand k.l. (2017)	23	1
35	Stewart k. (2017)	42	0
36	Cruz j.p. (2017)	22	0
37	Parker r. (2017)	36	0
38	Braun h.m. (2017)	29	0
39	Vanderbroeck p. (2017)	14	0
40	Muntinga m.e. (2016)	42	0
41	Bell a.v. (2016)	35	0
42	Shehata z.h.a. (2016)	14	0
43	Kattari s.k. (2016)	69	0
44	Díaz-Reviriego i. (2016)	40	0
45	Bailey p.k. (2016)	22	0
46	Kano m. (2016)	31	0
47	Seeleman c. (2015)	50	0

48	Carabez r. (2015)	32	1
49	Waite h. (2015)	11	0
50	Wagenaar b.h. (2015)	11	0
51	Brobeck e. (2015)	15	0
52	Good Mojab c. (2015)	10	0
53	Callahan e.j. (2015)	40	0
54	Mansh m. (2015)	48	0
55	Mehndiratta m.m. (2014)	57	0
56	Prusty r.k. (2014)	33	0
57	Riggs d.w. (2014)	57	0
58	Abghari m.s. (2014)	32	0
59	Simon m.a. (2014)	21	0
60	Mcclimens a. (2014)	12	0
61	Kihla a.j.-f.t. (2014)	10	0
62	Stronks k. (2013)	17	0
63	Haq r. (2013)	37	0
64	Aramburu Alegría c. (2013)	14	0
65	Giesbrecht m. (2012)	32	0
66	Boone j.h. (2012)	28	0
67	Gates m.g. (2012)	14	0
68	Wilkowsk w. (2012)	17	0
69	Celik h. (2012)	29	0
70	Brown t. (2011)	16	0
71	De Maesschalck s. (2011)	37	0
72	Celik h. (2011)	51	1
73	Greenlee c. (2011)	18	0
74	Solway e. (2010)	21	0
75	Björklund k. (2010)	14	0
76	Arning k. (2009)	83	0
77	Khan s.i. (2009)	69	0
78	Mo p.k.h. (2009)	110	0
79	Im e.-o. (2008)	20	0
80	Vo d.x. (2008)	10	0
81	Nayback a.m. (2008)	20	0
82	Lantz p.m. (2008)	53	0
83	Booker c.l. (2008)	31	0
84	Macnaughton n.s. (2008)	16	0
85	Trentham b. (2007)	16	0
86	Coombs a.a.t. (2005)	70	0
87	Bartlett c. (2005)	154	0
88	Fincher c. (2004)	69	0
89	Blackford j. (2003)	25	0
90	Lickiss j.n. (2003)	11	0
91	Racine l. (2003)	71	0
92	Ayonrinde o. (2003)	15	0

The analysis hand-picked 92 document citations as shown in table 3. Armijo p.r (2021) had 12 citations and 0 links and then it was Abimbola s. (2021) with 40 citations and zero links. From the chosen documents, the year 2017 was more productive as compared to the other years in

terms of citation. Even though the year in which the publication was made is crucial, List 3 represents the evident count and the standard of the report.

Table 4: Country Citation of Gender Diversity in Healthcare

Rank	Country	Documents	Citation	Total Link Strength
1	Australia	20	284	6
2	Canada	25	304	14
3	France	6	51	5
4	Germany	11	184	5
5	Italy	9	55	10
6	Netherlands	15	286	8
7	Pakistan	5	112	1
8	South Africa	9	96	1
9	Spain	7	60	2
10	Switzerland	7	215	9
11	United Kingdom	36	489	11
12	United States	136	1628	18

Table 4 shows the country's citation of gender diversity in healthcare and shows that one nation is much more constructive as compared to the other nations. The cause of this might be the accessibility of research finance and the need to explore the gender diversity situation. The United States tops the list with 136 documents, 1628 citations, and 18 total link strengths.

As shown in the table, the United Kingdom is in the second position on this list of most productive countries in regard to gender diversity in healthcare with 36 documents, 489 citations, and 11 total link strengths. Pakistan had a smaller document (5) in comparison with Canada (25). It is possible to state that gender diversity in healthcare research is not completely successful in many countries, despite the significance of this fact. There is a significant difference between quality and quantity.

Table 5: Authors Keywords Occurrences of Gender Diversity in Healthcare

Rank	Keyword	Occurrences	Total Link Strength
1	Cultural Competence	19	32
2	Discrimination	12	25
3	Diversity	81	81
4	Equity	14	29
5	Gender	46	34
6	Gender Diversity	11	6
7	Healthcare	22	24
8	Inclusion	15	33
9	Medical Education	10	15
10	Transgender	13	17

Table 5 shows the author's keyword occurrences of gender diversity in healthcare. This represents that the search strings and the study which is done are perfectly accurate while diversity on the third rank in the listing 81 total link strength and 81 frequency. Aside from the subject term "gender diversity in healthcare", the most used word is "gender", pursued by "healthcare", and "cultural competence". Additionally, Table 5 represents the direction of different research perspectives on gender diversity in healthcare and the composition of gender diversity in healthcare.

Some studies focus on gender, gender diversity, healthcare, inclusion, equity, diversity, and more than meet the eyes. In conclusion, it can be stated that gender diversity research is

important in organizational strictness and that no new branches could be formed except the existing ones. Consequently, it would be appropriate to state that this trend of research might be firm in the upcoming times, with focus points on “gender diversity,” “gender” and “healthcare”.

Table 6: Descriptive Statistics of Gender Diversity in Healthcare

No.	Items	Result in
1	Co-Citation Cited Authors	8971
2	Co-Citation Cited Sources	25184
3	Co-Citation Cited Reference	7
4	Bibliographic coupling Documents	175
5	Bibliographic coupling Sources	3
6	Bibliographic coupling Authors	4
7	Bibliographic coupling Organizations	437
8	Bibliographic coupling Countries	8237
9	Citation Countries	45
10	Co-Occurrence All Keywords	31409
11	Co-Occurrence Author Keywords	148
12	Co-Occurrence Index Keywords	27321
13	Co-Authorship Countries	136

Chart 6 shows the estimate of every single item analysis frequency. Each author keyword 148, index keywords 27321, keywords had 31409, bibliographic coupling organization 437, bibliographic coupling countries 8237, bibliographic coupling sources 3, bibliographic coupling authors 4, bibliographic coupling documents 175, co-authorship countries 136, co-citation cited reference 7, co-citation cited sources 25184, co-citation cited authors 8971, and citation countries 45. This descriptive statistic gives an overview of gender diversity in healthcare literary texts.

Figure 1 represents the map of co-authorship. There is data from 1176 authors. When the minimum number of documents of an author was taken down at 3, only 3 met the thresholds. The three items were Celik h., Jr., and Khosa f. And they had 3, 3, and 4 documents respectively. The first item had 89 citations, the second item had 26 citations and the last third item had 17 citations. The 3 items had 3 clusters and 0 links. There is a distinct colour used for every cluster so that easy identification can be made. In this figure, there are only detached objects.

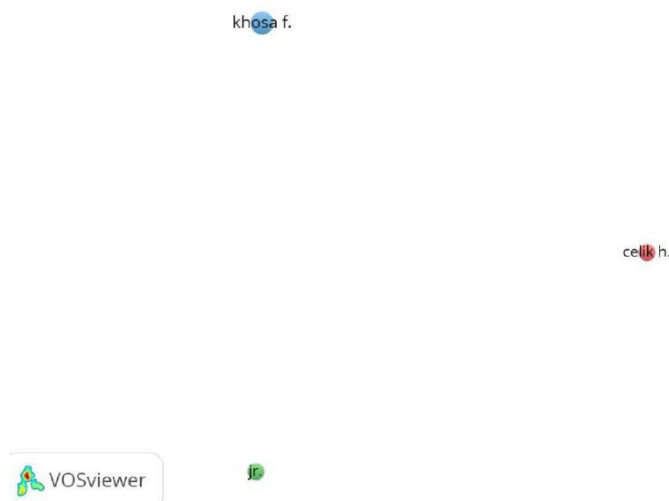


Fig 1: CO Authorship

Figure 2 represents the co-authorship of the organization. Every organization fulfils the norm of one document but when we talk about two thresholds, hardly 11 organizations meet up with the norm. For citation at the single threshold, 921 organizations meet the set criteria but for 2 citations only 11 meet the criteria. Out of 921 articles, hardly 4 articles were attached. The co-authorship survey forms only 1 cluster and 5 links and 2 documents for each item. Organizations were not closely gathered.

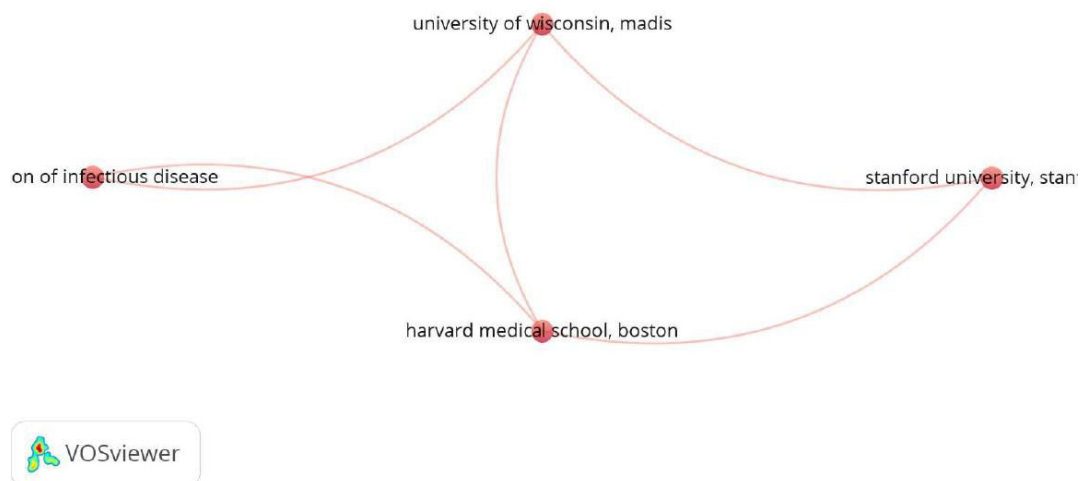


Fig 2: Co Authorship (Organization)

Figure 3 has shown co-authorship countries. 72 countries had no less than 1 document when there was 1 threshold but when there were 5 thresholds, it came down to 15 countries. They have 2 clusters, 61 links, and the total link strength was 136. Items were both intercontinental and international clustered. It can also be noticed from Figure 3 that United States, United Kingdom, Germany, France, and Canada establishments are dominant and are extensively attached via a network.

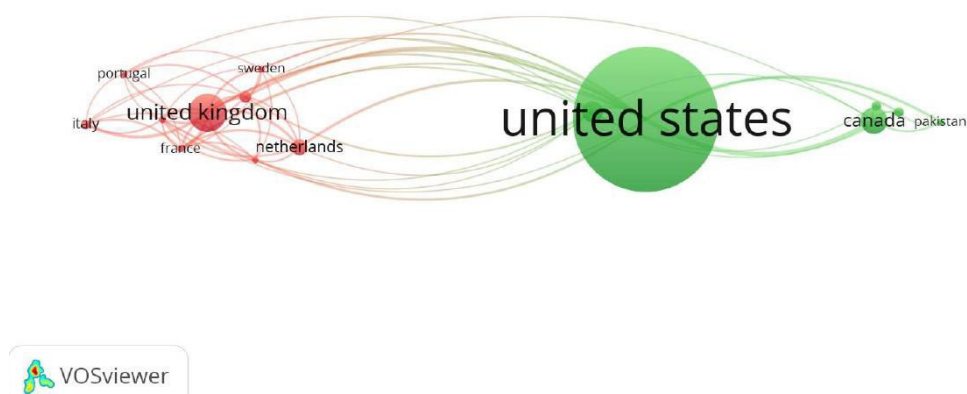


Fig 3: CO Authorship (Countries)

Figure 4 represents the co-occurrence of each keyword. In total, there are 2581 keywords. When there were 10 thresholds, hardly 133 links up the thresholds. Research applies one threshold, and it reported for 4 clusters. 31409 total link strengths were shown and all the keywords are densely clustered.

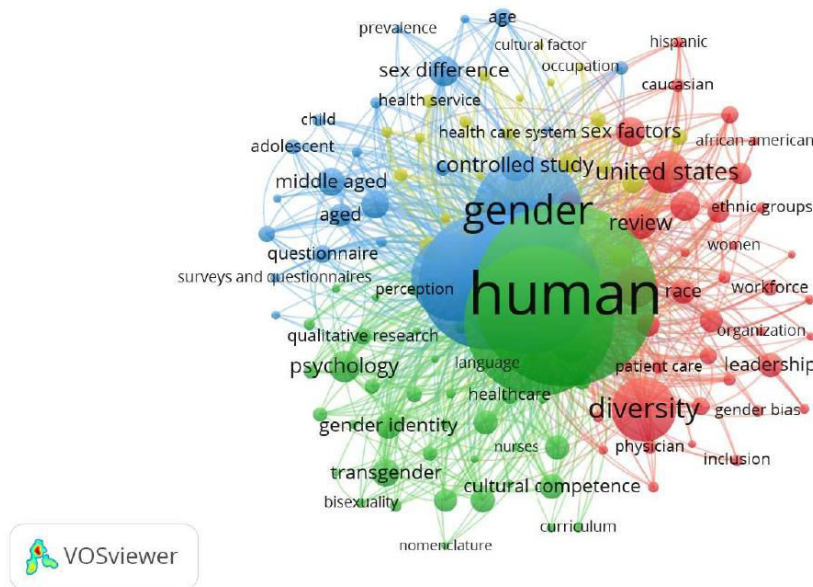


Figure 4: All Keywords

Graph 5 represents the authors' keywords. Reportedly 862 keywords were found when a single threshold was there however when 10 thresholds are in the account, only 10 keywords line up. The connected keywords form 3 clusters. Total link strength was 148 with 35 links. Diversity was a central keyword to the authors' keywords gathered with gender diversity, discrimination, healthcare, gender, equity, inclusion, medical education, cultural components, and transgender.

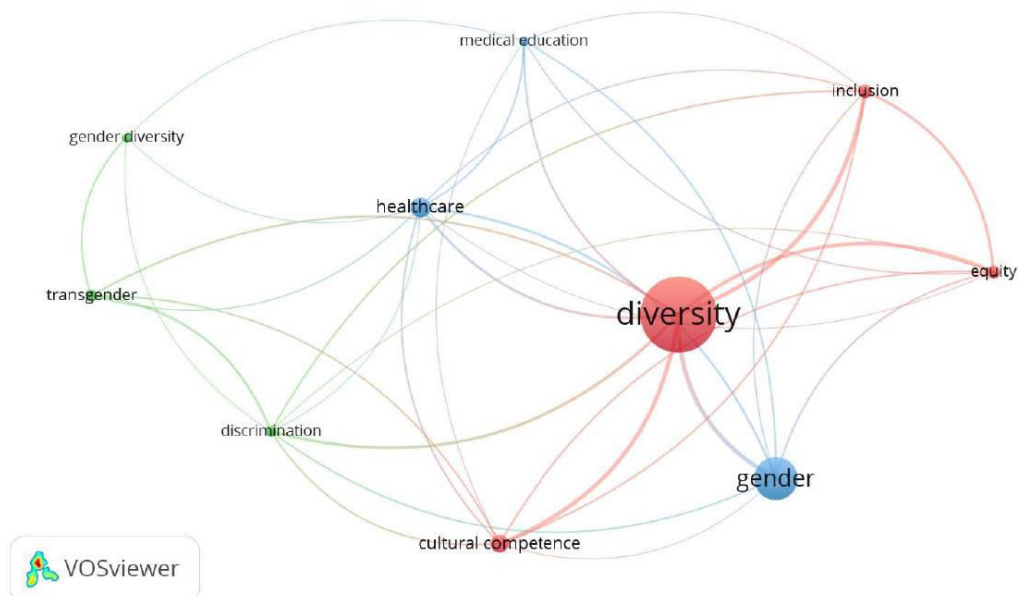


Figure 5: Author Keywords

Graph 6 represents the index keywords. 1979 keywords are found at 1 threshold however regarding ten thresholds hardly 119 keywords lined up. The connected keywords form 4 clusters. Total link strength was 27321 with 5353 links and 119 items.

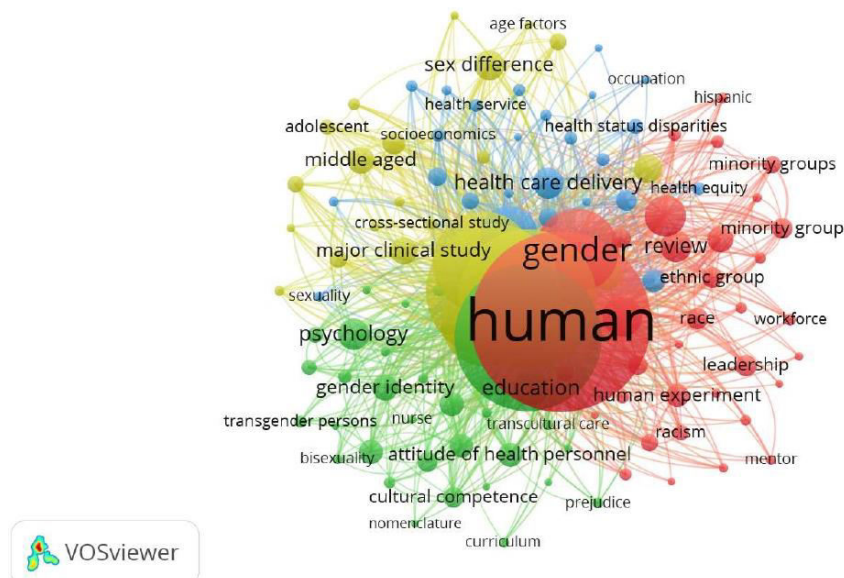


Figure 6: Index Keywords

In regard with documents citation in Figure 7, 92 meet the thresholds of ten. 92 items connected with 89 clusters. The document citation map is densely clustered. In total there were 275 documents.

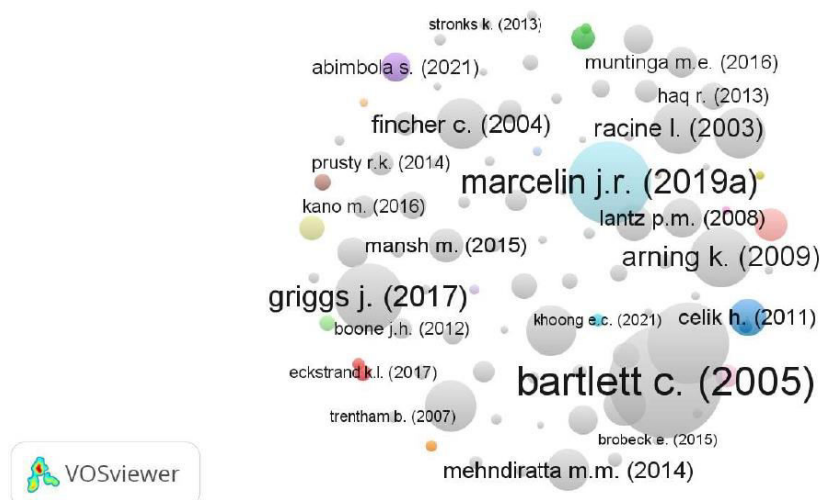


Figure 7: Document Citations

Figure 8, shows the source's citation, Overall, 211 sources were there, only 3 meet the thresholds of five, with zero links and 3 clusters only. The 3 items were the international journal of environmental research and public health, the journal of vascular surgery, and plos one.



Figure 8: Source Citations

As represented in Figure 9, in the company of 1176 authors, hardly 3 meet the thresholds of three. The three authors were Celik h., Jr., and Khoso f.

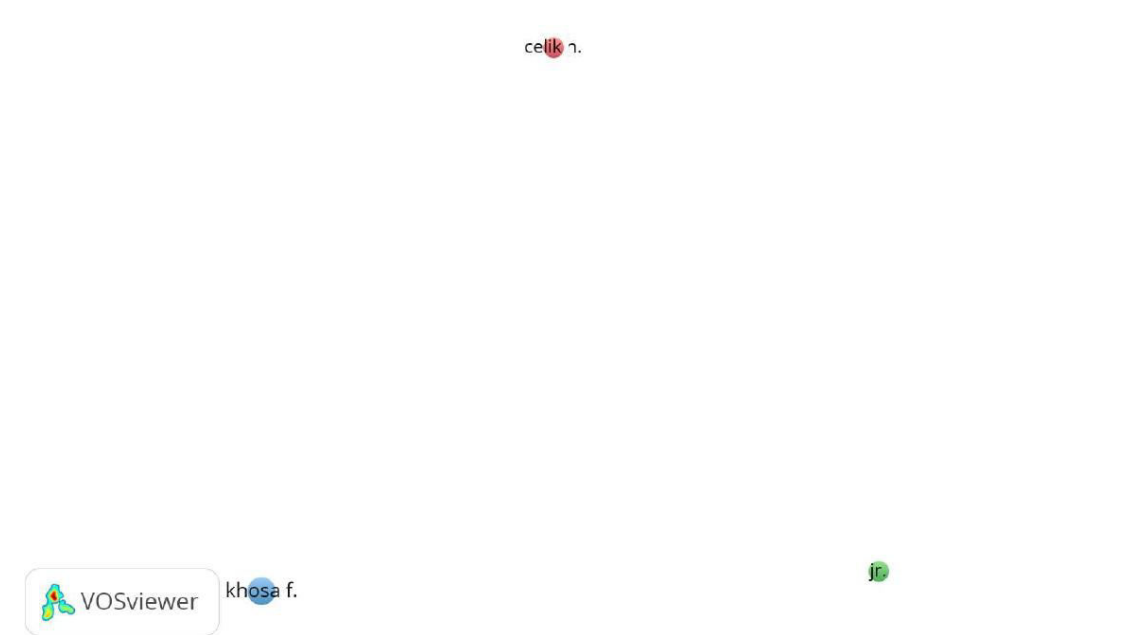


Figure 9: Authors Citations

As can be viewed in Figure 10 depiction of organization citations is done. Among 927, 11 match with the thresholds of two. In which 11 items related to each other.

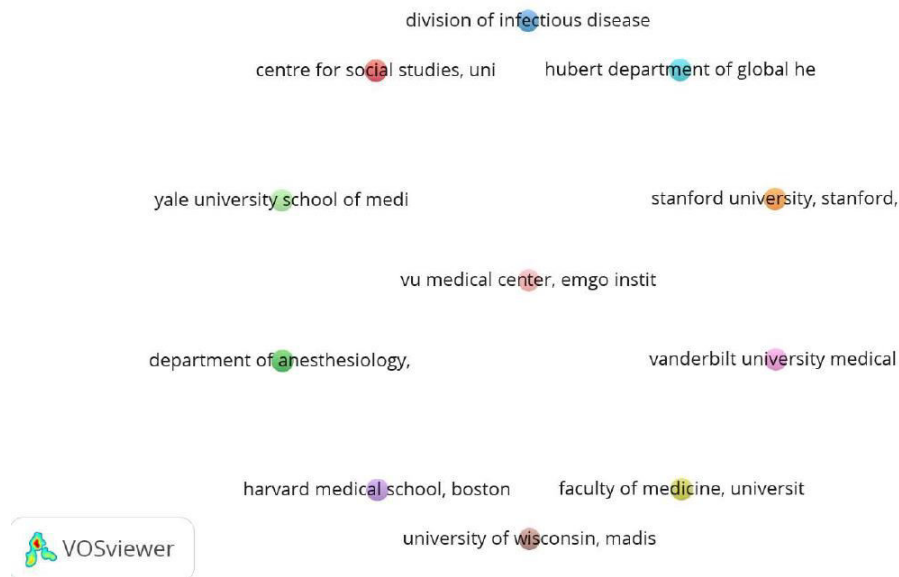


Figure 10: Organizations Citations

Figure 11, have 72 countries and all of them meet the threshold when at one. 29 countries were tied up. United States with densely connected with every country except Pakistan Australia and South Africa while the United Kingdom relates to every country except Pakistan Spain, Italy, and South Africa.

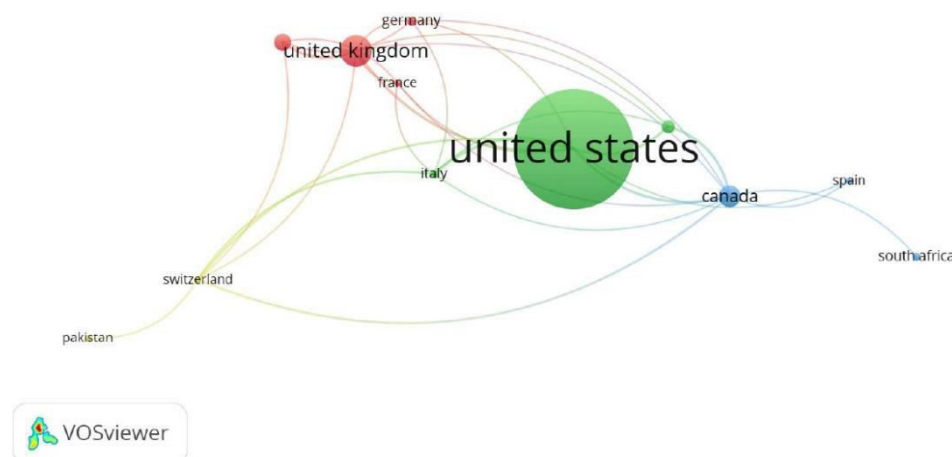


Figure 11: Countries Citations

Figures 12 – 16 reveal their connection and mapping. Graph 12 represents 275 documents and 131 connections, and are dense clusters. In Figure 13, we have 211 sources, 3 meet the thresholds and the total link strength were also 3. Figure 14 represents the bibliographic coupling considering the authors also how are they associated with each other. Graph 15 represents that there were 921 organizations and 11 met the thresholds, between them there were 19 links, and the total link strength was 437. Figure 16 shows that there were 72 countries in which 15 met the thresholds and the total link strength was 8237. Figure 17 represents the collection of cited references; Graph 18 represents the chart of the cited sources and graph 19 convey the cited authors.

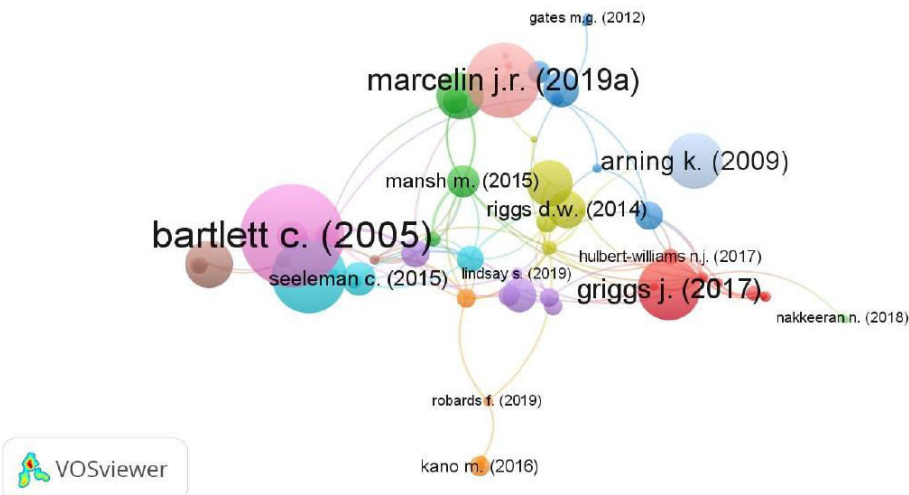


Figure 12: Bibliographic Coupling (Documents)



Figure 13: Bibliographic Coupling (Sources)



Figure 14: Bibliographic Coupling (Authors)

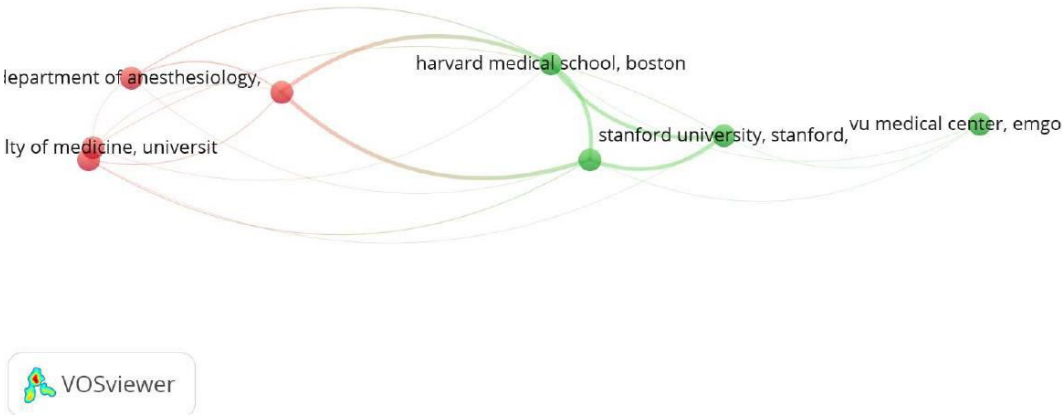


Figure 15: Bibliographic Coupling (Organizations)

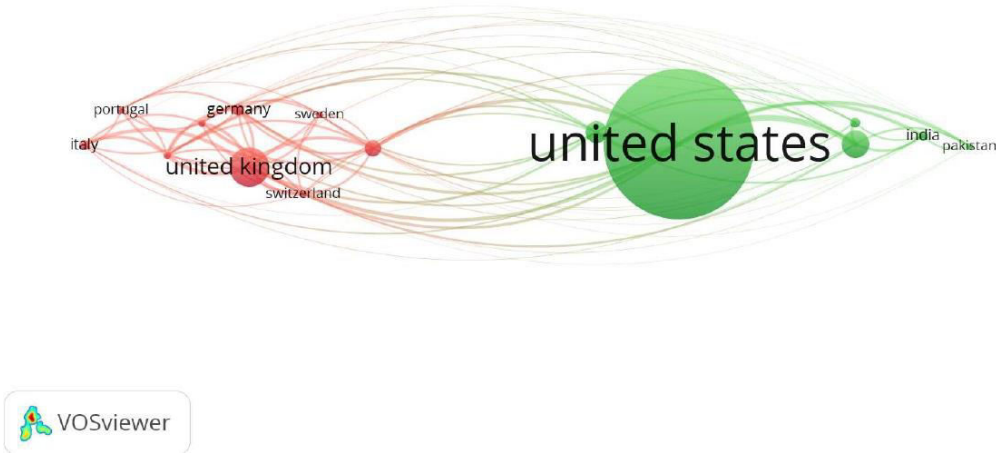


Figure 16: Bibliographic Coupling (Countries)

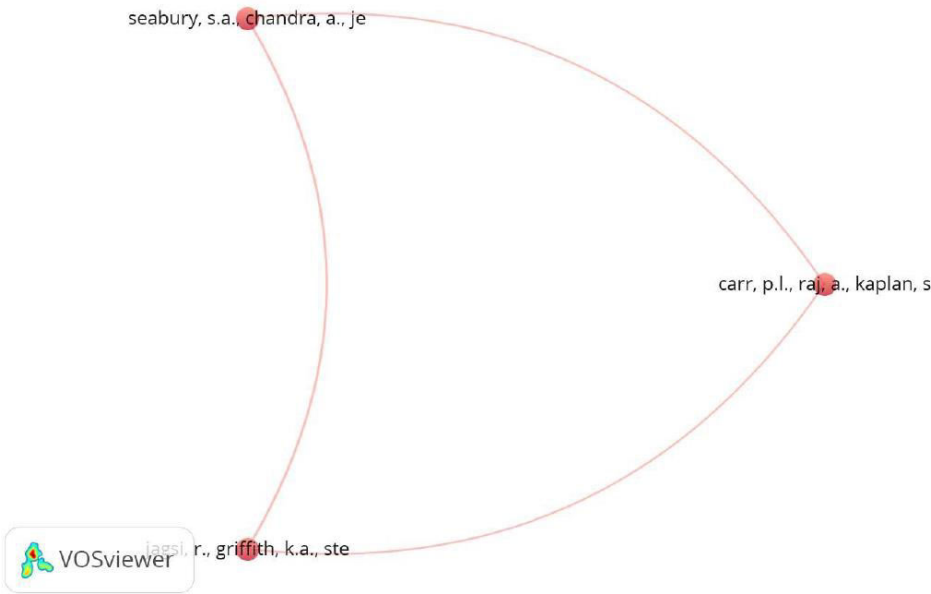


Figure 17: Cited Reference

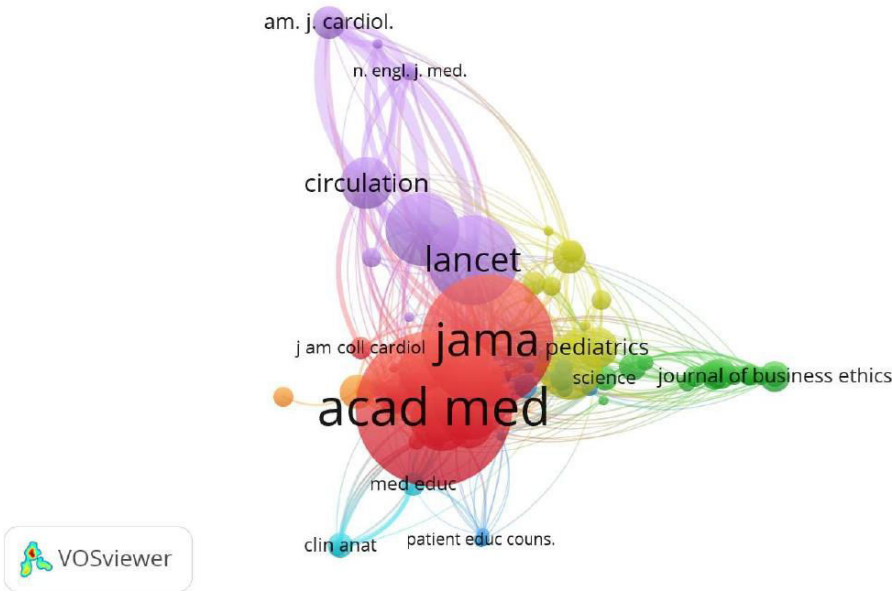


Figure 18: Cited Source

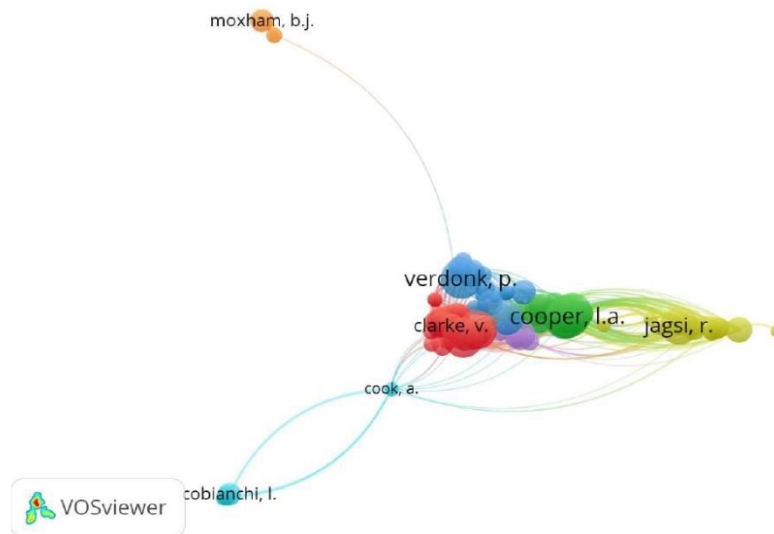


Figure 19: Cited Author

CONCLUSIONS

This paper gets down with the evaluation of literature and theory on gender diversity in healthcare. Built on 275 articles issued in the middle of 1992 -2022, important information came out and a structured summary of gender diversity in healthcare was introduced. The research explores the journal, key authors, keywords, institutions, references, and countries as depicted in the figure and tables above. This study has used a method assisted by VOS Viewer to perform quantitative analyses and in-depth analysis of this fascinating topic. Indeed, to examine a new field briefly and quickly this paper can be used as a reference. Regarding this, gender diversity in healthcare was used as an illustration, which makes a specialized benefit. This method has the upper hand in showcasing how an area is emerging, critical papers visually, and productive authors. Moreover, reference examination by VOS Viewer could minimize the challenges of pointing out the scholars to suitable literature review and papers to review. The current research had few restrictions. Nevertheless, our information includes the most significant papers on gender diversity in healthcare, the Scopus database is not exhaustive, and a few significant articles were not covered. Moreover, we emphasized articles printed in Journals with a pay-off element, in consequence, the articles which were supposed to be examined were deducted. Facts within VOS Viewer along with Scopus are a small foundation for the articles; so, we might have not included a few significant elements within the entire article. Ultimately, the existing study concentrates endlessly on a single issue, gender diversity in healthcare. Therefore, future studies can examine. Nonetheless, our study informs about the importance of gender diversity in healthcare.

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**GENDER IDENTITY, SEXUALITY AND YEARNING OF THE QUEER (LGBT) IN
BENGALI CINEMA: AN ANALYSIS OF GENDER DISCOURSE IN CHITRANGADA-
THE CROWNING WISH, NAGARKIRTAN- THE EUNUCH AND THE FLUTE
PLAYERANDSAMANTARAL-PARALLEL**

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ABSTRACT

Media is a big part of peoples' everyday lives. It can influence how we see ourselves and the world to some extent. There are several types of media, for instance: television shows, cinemas, the radio, newspapers, advertisements which are randomly placed & the internet. In these diverse media, there are images of men, women and the Queer (LGBT) represented in different ways and with different characteristics. Identity is a fundamental factor that makes a difference among people. Queer is one of India's most minor and marginalized communities. Queerrights always face legal and social challenges that non-LGBT people do not experience. They meet this problem due to their sexual or gender identity. We live where the majority wins over the voices of the minority and where homophobia and transphobia still get negligence. In India, we need a space that can raise their voice to mass people. Cinema is a tool that reaches mass people at once, which can represent the yearning of the Queer community. However, the media constantly portrays them in a neglected way. The study attempts to take the queer movement forward through the medium of films. The study will try to bring to the forefront the several myths associated with LGBTQ people in Bengali cinema and explore how their queer desires & aspirations are made visible through queer films.

Keywords: Media, Queer Theory, LGBT, Representation, Homosexuality, Bengali Cinema.

INTRODUCTION

The problem brought forth by this research concerns the representation of the Queer (LGBT) or the discourse of gender. Since media is a massive part of peoples' everyday lives and, in several ways, may influence how people perceive themselves, their thoughts & the world, it is alluring to see how representations in movies portray Queer (LGBT). Currently, media has become the primary education tool. Cinema is the most powerful medium among other media to catalyze social change. Like other forms of art, cinema is a part of social reality and a medium for portraying it. Cinemas have a subtle influence on society's way of thinking. It has undeniably contributed so much to the queer movement in India. Whereas some programs are created to educate the public, they do not always prefer to walk off with that data. The media affects the way we tend to act and assume. It offers a profound influence on the behaviour of its audience. One negative influence will trigger another negative impact & may destroy society's values.

Sexual minority consists of all those who fall under Lesbians, Gays, Bisexuals, Transgenders, and Intersex. Projections of gender stereotypes in movies forms society's perception of gender roles. There are diverse communities that suffer from misrepresentation by the media. One such community is the Queer (LGBT) community, whose representation is often twisted by the portrayal in media. The hostility towards the LGBT community in most of India is so intense that many of them have not disclosed their identities for concern about their safety and rejection. Queer (LGBT) rights always face legal and social challenges that non-LGBT people do not experience. Nonetheless, most queer people in India remain closeted, fearing discrimination from their families, who might see homosexuality or any other form of deviant sexual or gender behaviour as shameful. Homosexuality is not a mental disease but as natural as heterosexuality. Identity is one of the essential variables in a society that makes differences among people. No

particular identity is accepted enthusiastically by our so-called human society. We live where the majority wins over the voices of the minority and where homophobia and transphobia still get negligence. The representation of the third gender or Queer (LGBT) is much less in media, especially in films. While other general issues are becoming the basis of filmmaking, the queer issue has little space compared to other mainstream films. The films have shown them very often only as a part of the film, sometimes to introduce humour content in the films such as hijra, chhakke etc.; but films have not dealt with the queer community, which represents the less acceptability of the third gender in mainstream cinemas. In this light, the Bengali films Chitrangada, Samantaral and Nagarkirtan can be regarded as one of this type which deals with homosexuality or Queer and the issues they face. The research paper thus tries to discuss the portrayal of the queer issue in cinemas, focusing on three Indian Bengali-language films Chitrangada, Samantaral and Nagarkirtan.

Queer Theory: An Insight

The queer Theory arose from lesbian-gay studies, which evolved into the academic side of the LGBT rights movement. Queer Theory is relatively recent. 'Queering' is the process of reversing heterosexuality as the norm. Queer refers now to not only lesbian/gay issues but also includes other identities and communities- all of which have been marginalized in histories- such as bisexuality, transsexuality & transgender. Transgendering, transvestitism, drag & other sexual identities represent the multiple nature of identities that cannot be diminished to one category.

Queer Theory looks at:

- The basic construction of sexuality in discourses of law, religion or medicine
- The popular representation of lesbian or the gay
- The public understanding of alternate sexualities
- The hidden history of homosexual writing & representation
- The link between sexuality-based oppression & other discriminatory forms, such as patriarchy & racism
- The institutional structures that undergird popular representation of Homosexuality

QUEER THEORY SEEKS

- To counteract homophobic identities
- To support people in expressing their homosexual desires & in building lesbian & gay lifestyles
- To resist heterosexual cultures through the carnival, transgression & parody
- To be co-sexual: men & women are on equal footing. Queer is a term which used to mean both lesbians and gays now
- To promote the demand & fight for sexual justice as part of the social justice.

PAST TEXTS & FUTURE POLITICS

Lesbian & gay writing now constitutes a substantial body of work. Extensive critical writings on the area & institutional presence have made LGBT studies a massive multi-disciplinary field, aligned with & drawing from sociology, literary studies, cultural studies, psychology & history. Queer (LGBT) theorists argue that mainstream literary cultures have effectively erased lesbian-gay presence from the canon. K. J. Dover, in his 1978 work *Greek Homosexuality*, traced Homosexuality to the ancient period. Martin Duberman et al.'s 1989 work *Hidden from History: Reclaiming the Gay & Lesbian Past* is another example of such a retrieval-history project. One of these achievements is the evidence they have drawn of sexual dissidence & oppressive social

practices that ensured that Homosexuality was 'closeted'. It can be located in social discourse practices for these historians how exactly the discourses of exclusion worked and Homosexuality disappeared. Reacquiring lesbian-gay text is the centre of queer studies because it provides a history of the queer pasts and the exclusion modes that have ensured the marginalized of the Queer. Ken Plummer & Arlene Stein (1996) both together offers three feasible areas wherein Queer Theory may be merged into cultural & literary studies and sociology:

- a) **Reconsidering the Issues:** To analyze social satisfaction with particular attention to ideologies of heterosexism & homophobia, and erotic hierarchies. They argue that we should grasp sexuality as linked to other factors such as race, age, class and mobility. Queering cultural & literary studies need to reset sexuality within these domains.
- b) **Rereading the Classics:** A modification is needed for the traditional sociological texts (Popper, Giddens, and Habermas) to address queer concerns.
- c) **Rethinking Pedagogy:** A queer pedagogy is needed to break the taboo and heterosexual thinking.

Queer (LGBT) Representation in World Cinema

The visibility of the LGBT community in foreign films has gone through the same stages that the LGBT issue has gone through in gaining recognition in the society. Straight art films have been hostile to gay films since the beginning of the portrayal of homosexuality in films. While homosexuality has been a feature of many films, the frequent portrayal of homosexuality was seen predominantly in the 1970s and afterwards. However, the film on homosexuality began with William Dickson's motion picture in 1895, in which two men were depicted dancing. 'Different from the Others,' which was released in 1919, is regarded as the first LGBT rights film, whereas homosexual issues are portrayed differently in different places at different times. Several film festivals were organized by various associations, including the BFI London LGBT Film Festival, the Sundance Film Festival, the New York Lesbian and Gay Experimental Film Festival, and its counterpart, the New York Lesbian and Gay Film Festival. These festivals have evolved as key platforms for LGBT films and the gay rights movement. Initially, gay films were associated with experimental films. However, the films gained traction in the 1990s, when a number of film festivals were held on a regular basis.

To mention a few gay films from the nineteenth century, consider the following: British films - The Leather Boys(1961), Sunday Bloody Sunday (1971), Nighthawks (1978), French Films - Un chant d'amour, Orphee (1950) Une robe d'ete'(1996), American Films as Longtime Companion(1989) Damned If You Don't (1987) Boys Don't Cry (1999) and Black Swan (2010).The last decades has seen a wide range of homosexual films.

It should be noted that IMDb lists 94 popular gay movies from 2012 and 76 films from 2013. This highlights how the third gender has consistently acquired visibility in many countries. Thus, the popularisation of gay films in terms of production, screening, and viewing indicates the global acceptance of the third gender issue.

Queer (LGBT) Representation in Indian Cinema

Cinema is always considered a reflection of society. Filmmakers in India represent various issues of society in their films but the Queer (LGBT) issue. The filmmakers can portray their life and the rights of the queer community through their films. Defining them in movies can help and make society aware to ensure living in love without neglect. Films have failed to deal with the problems and issues of the queer community, which shows the lack of acceptability of the queer community in mainstream films.

Nevertheless, the representation of the LGBT in Indian cinema is significantly less. Like other countries, India started to produce films on gay issues in the late eighties of the twentieth century. *Bomgay* (1996) was the first film to focus on gay sex & it was a short film. However, the film director could not release the film in India because he believed that the film might not get a certificate from the censor board. The Queer has always been represented as a ridiculous object in cinemas. Their presence in our so-called society is always a question. The film on third gender/queer is predominantly found mainly with 1996. This was the year when *Fire* was produced, but it was released in 1998, which met with massive protests by different organizations & thereafter set a stage to debate on homosexuality. Deepa Mehta's *Fire* can be considered the first mainstream film where lesbianism got clear & comprehensive visibility. In contrast, the twentieth century marked the visibility of a few gay films or other third-gender films as *Fire* (1996), *Daayraa* (1996), *Tamanna* (1997), *Darmiyaan* (1997), *Dostana* (1998), *Bombay Boys* (1998) etc. The twenty-first century progressively added to the queer issue further with its increased number of films & increased representation in terms of dimension & content. It is interesting to note that from 2009 onwards, the number of the third gender has increased.

Bengali Cinemas & Queer (LGBT) Identity-Analysis

Bengali cinemas have tried in their way to reconcile to the gay theme. However, unfortunately, the characterizations remained a spoof of a serious matter even after all these years. The Bengali film industry is one of the largest film industries in India, which can bring Indians together to foster a new public opinion. Unfortunately, the world's largest film industry is often seen as lacking a sense of responsibility towards queer issues. Getting the film based on Queer issue passed by the certification board is the first hindrance since the Film's content is legally opposed to what a country accepts. Filmmakers faced problems getting the financial support needed for the release, and the most significant limitation is the probability that the audience may boycott the film or picket it. Furthermore, many actors are discouraged from coming out of the closet due to social and family stigma, Section 377, and concern that their work will only be perceived as something about LGBT issues. For actors, it might be the fear of being typecast only in LGBT roles, the dissatisfaction that is brought on when one's sexual orientation takes precedence over all other identities in person.

LGBT characters in Bengali cinema are subjected to crude jokes and are frequently depicted as objects of ridicule. In the history of Bengali cinema, filmmakers started making films focused on the queer community to bring them to the media after the decriminalization of homosexuality in India in 2009. Gender played a significant role in Bengali cinema. In Bengal, the cinemas on the queer (LGBT) issue are found mainly in the last decade but significantly less. The first film was *Arekti Premer Golpo* which Rituparno Ghosh directed in 2010. In the last decades, the Bengali cinema industry has brought up many feature films which portray queer characters, such as *Arekti Premer Golpo* (2010), *Memories in March* (2010), *Chitrangada- The crowning Wish* (2012), *Achena Bondhutto* (2015), *Family Album* (2015), *Conditions Apply* (2016), *Maya Mridanga* (2016), *Samantaral- Parallel* (2017) & *Nagarkirtan- The Eunuch & the flute player* (2019). The decade of the 2010s was significant for the Bengali cinema industry because it began to see a shift away from timeless and repeated love and friendship stories and toward more realistic and darker films.

Common Myths about Queer (LGBT) people across Bengali Cinema

Topics	Commonly wrong Associations
Child sexual abuse	a) Gay people are paedophiles and sexual predators. b) Gay men are sexually abused in childhood
Always treated as the other gender	LGBT people consistently portrays as alien

Acceptance of the society	The so-called society cannot accept them as a part of it
Rights to express their desire	No rights to express their wish and desire to live life in the so-called society
Feminine, women-like characteristics	Gay men are feminine; women like.
Men-like characteristics, dressing sense	Lesbians are like men.
Rights	LGBT people are demanding special rights.
Hijra person being born as intersex	Hijras are born with a congenital disability, which is why they have both male & female genitals, hence are cast aside and shunned by society.
Growing trends spread of homosexual behaviour due to the internet	The growing trend of LGBT people
Gayism	Certain people follow this 'ism.'
Rape	Men/ transgender people can never be raped.
Importance of psychiatrist's opinion (which could be negative/positive)	Some psychiatrists consider same-sex orientation a mental disease and may suggest counselling and other therapies to help people change their sexual orientation.

In this scenario, Rituparno Ghosh's filmography becomes a focal point for his exploration of gender and sexuality. Queer played a significant role in Bengali cinemas. Films like 'Arekti Premer Golpo', 'Conditions Apply', 'Chitrangada', 'Memories in March', 'Samantaral', 'And Achena Bondhutto' attempted to take a serious take on the queer. Gay representation has been made in different ways in Bengali films. The first is portrayed as hijra, the second form of humour, the third by mental illness, and the last by the way it reflects the complexities of LGBT people's lives.

RESEARCH OBJECTIVES

This paper will study the representation of the Queer (LGBT) in 3 selected films by three different directors; the objectives of the study are:

1. To study the representation of Queer (LGBT) people in Bengali- language cinema.
2. To study the queer characters, their problems & issues as raised and discussed in Bengali cinema.
3. To study the common myths corresponding with the representation of LGBT people in Bengali cinema.

METHODS

The research methodology used for the research study is Content Analysis. Content Analysis of the Bengali cinemas featuring Queer (LGBT) characters is done. Before selecting the films for the research, a small pilot study was done & all the Bengali films made on the LGBT theme between (2010 and 2022) were observed & studied. The 2010s was when Bengali cinema started the representation of LGBT in films due to the culmination of the queer rights movement in Indian society. Moreover, the various myths associated with queer representation in Bengali cinema were studied and listed.

The selected three films are to be analyzed according to these parameters to answer the research objectives. The parameters are-

1. Character's gender identity (If characters within the show did not state the character's gender identity/sexual orientation, that information was determined by their romantic/sexual behaviour)

2. Characters' profession (If the character's profession was not obvious within the context of the episodes, then no profession was recorded.)
3. Are the family members accepting and supportive of the LGBT character?
4. Do the family members force them to be cis-gender?
5. Are the society shown accepting and supportive of the LGBT character?
6. Are there instances of LGBT characters being teased or humiliated, or abused physically for being LGBT? If yes, how many instances in the film?
7. How does the film ended for the LGBT character?

Chitrangada: The Crowning Wish

Chitrangada: The Crowning Wish (Rituparno Ghosh, 2012) is a film based on the concept that one can choose their gender identity if they wish to.

Character's Gender Identity: Three queer characters are shown in the film: the lead character Rudra and her boyfriends, Rahul and Partho. According to the first parameter character's gender identity, the lead protagonist Rudra has shown as a queer man who wants to be a woman. When she finds her existing sex identity is unpleasant and unbearable, she desires to change her sex through sex reassignment surgery. The character Rudra stated himself as a woman even though she was born as a man with male organs. It is important to note that Rudra's attire, lavish jewellery, extensively kohled eyes and non-masculine behaviour make his gender identity reasonably visible.

Rudra's Ex-Boyfriend, Rahul portrays as a gay person who is also in love with Rudra. This character appeared significantly less in the film.

Partho is a character who portrays a queer character here. Either he is a gay or bi-sexual person who is physically involved with Rudra. Partho represents a bi-sexual because he has a physical relationship with Rudra, a queer man who wants to be a woman. When Rudra was ready to undergo sex reassignment surgery to change the sex, Partho married a real woman Kasturi, another member of their dance group.

Character's profession: The character Rudra, professionally, is a choreographer who has a theatre group and choreographs Rabindra Nath Tagore's Chitrangada, which is based on the concept that one can choose her/ his gender if one wishes to. Rudra's father wanted him to be a cis-gender and an Engineer, but he did not. Rudra stayed with his parents. His father never supported his profession. He forced him to study Engineering, but eventually, Rudra became a choreographer according to his wish. Only his mother supports his profession.

Partho, another queer character, is professionally a drummer, and for that, Kasturi suggests Rudra take him as a backup drummer in their group.

Rudra's other boyfriend, Rahul is professionally a photographer.

Are the Family Members Supportive of the LGBT Character: Only one character is supportive of the LGBT character here, and she is Rudra's mother. She supports them in every way she can. She supports her in the dancing profession and also supports their relationships too. Eventually, when she was going through the sex reassignment surgery, her family members, especially her father, supported her and accepted her as a daughter. He was ready to change his will and ask Rudra to change her name. They even accepted their same-sex relationship with Partho. It is the tale of a desire- a story of the parents' wish versus their child's wish – that one can choose their gender identity.

Family Members Forced Them to Be Cis-Gender: Yes. Rudra's father forced him to be a male. He never goes to any of Rudra's dance or theatre shows as he cannot accept his son as transgender.

Society supportive of the LGBT character: This film shows that he has a theatre group where all the group members respect and accept him as a transgender person.

Being Teased, Humiliated or physically abused: not shown in the film.

What happened at the end for the LGBT character: The film's story is based on the concept that same-sex couples cannot adopt children in India. Therefore, Rudra resolves to undergo sex reassignment surgery to become a woman to adopt a child with her boyfriend, Partho, represented as a bi-sexual character. His mother tries to stop her from getting intimate with Partho as she knows that people take advantage of and abuse her son's loneliness. His parents supported his new journey, but Partho rejected him by saying, "If I have to have a woman, I would rather have a real one than this half-thing. Partho marries another member of the group, Kasturi. It breaks Rudra's heart because it was for Partho that he chose to undergo sex reassignment surgery, despite Partho's objection.

Nagarkirtan: the Eunuch and the flute player

Nagarkirtan: The Eunuch and the flute player (Kaushik Ganguly, 2019) bizarrely dealt with gender fluidity. The film is based on the love story between a transwoman and a gay man.

Character's Gender Identity: There are eighteen queer characters shown in the film. The lead character Parimal was born as a male identify herself as a female; thus, we can identify her as transgender. Her teacher's character portrays either a bi-sexual or gay. It is unclear in the film as, later on, he marries Parimal's elder sister. Parimal's boyfriend, Madhu, hails from Nabadwip and is portrayed as a gay character. Parimal (Puti) and Madhu share a romantic relationship. Another important character in the film is a transwoman, Manabi Bandyopadhyay, who transformed herself into a transwoman through sex reassignment surgery. The other fourteen transgender characters are shown as a part of the film's story.

Character's profession: The lead character Parimal (Puti), is a member of the queer community called the Hijras in Kolkata. Her boyfriend, Madhu professionally, is a delivery boy for a Chinese restaurant. Sometimes Madhu plays flute in a kirtan group based in Kolkata as a part-time job. Another character Subhash portrays as an obscure character whose sexual identity is unclear is a school teacher by profession. Another transwoman in the film is Manabi Bandyopadhyay, a principal of a women's college. The rest of the transgender characters are shown only as part of the film's story.

Are the Family Members Supportive of the LGBT character: Her father never accepted her as a girl and forced her to be cis-gender. There is a scene in the film where she dresses like Ma Sarada and wins first prize. Her mother and sister were happy she got the first prize, but her father was not. However, her father does not appreciate her winning the prize and asks to remove her makeup. She no longer wishes to spend her life as a guy with her family since she believes it is not her true identity. Parimal walks away from home and starts living with a group of transgender people in Kolkata.

Family Members Forced them to be cis-Gender: Her family forced her to be a male even though she identifies herself as female. Her father always forced her to wear clothes like a man.

Society supportive of the LGBT character: In this film, the queer characters are portrayed as unsupportive by society. Parimal was forced to be cis-gender by her father because of the social stigma. There is another scene where Madhu introduce Pari to his family; he hides her sexual identity from his family. When they were attending a kirtan, Pari became emotional, and

Madhu's sister-in-law found her as a transgender person in front of society. Then she ran away from that place. Madhu's family is also unsupportive of the transgender character. The film does not intellectualize gender as a social and cultural construct, nor does it engage in a conflict between the normative and non-normative. Instead, it simply narrates the story of a non-normative couple's love in a heterosexual society. They eloped from where Puti's Guruma and the other transgender person stayed and met a transwoman who changed her gender through sex reassignment surgery. The transwoman told them that even though she had changed her gender, society still could not accept them as women. It represents that even after the sex reassignment surgery, trans women are still neglected by society and treated as men, not women. Madhu accepted her as a woman and agreed to help her on this journey. Madhu took her to Nabadwip to introduce her to his family as a woman. In a scene, Madhu's family and the people of Nabadwip learn her reality that she is not a woman but a transgender person, and they refuse to accept their relationship. Parimal has to run away from Madhu's family too. She could not fight back against society as a society that always neglected queer people. She was humiliated by another queer group of Nabadwip and handed over to the police by that queer group. Thus, she had to hang herself because our society did not accept her the way she was.

Being Teased, Humiliated or Physically Abused: Her father humiliates her several times as he wants her to be a man. She always loved to dress up like a woman since she started understanding her emotional and psychological desire to be a woman inside. Eventually, she turns into a teenager and is physically involved with her teacher Subhash da, who is cis-gender but bi-sexual. In another scene, we can see that she was asking her teacher, Subhash da, to go to America as the country allows gay marriages. However, Subhash betrayed her by marrying her elder sister. Maybe Subash could not fight against the social stigma, so he marries Pari's sister.

What Happened at the End for the LGBT character: This film could not break the taboo that queer people cannot choose their gender identity. Madhu's family did not accept Pari. In these circumstances, she was forced to hang herself as she was neglected by society.

This film depicted diverse shades of the queer community without resorting to cheap gimmickry, as usually depicted in mainstream Bengali films. The film serves as a mirror, reminding us of the hundreds of times we have looked away from the unsettling image of a trans person banging on our vehicle windows or clapping their hands for alms. This film has thirteen transgender characters involved in the movie's context. One day, Parimal (Puti) met Madhu. It is a romantic relationship between a transgender Parimal and a presumably cisgender person Madhu, which is unacceptable in our society. Ultimately, this movie also could not break the taboo that queer people are not free to choose their gender identity.

Samantaral: Parallel

Samantaral: Parallel (Partho Chakraborty, 2017), the film comes across with a message that "everyone deserves love- whomever she/ he is; however, she/ he is."

Character's Gender Identity: Three queer characters are shown in the film Samantaral (2017). The lead character Sujana is an intersex person who appears as a man but from inside a woman. Instead of leading a free life like other family members, they kept locked in a room near to terrace from the rest of the family since childhood. He was born with an intersex personality.

Two actual transgender people have shown in the film in a supportive roles. Although there are no dialogues for them in the film, they still play a vital role.

Character's profession: Since she was kept locked in the house, the character could not get an opportunity to have a profession under these circumstances.

The other two "Hijra" characters belong to the hijra community.

Are the Family Members Supportive of the LGBT Character: He was born as an intersex person. Because of the stigma, the family members cannot accept him and have kept them locked in a room near the terrace since childhood. The family consists of nine members, including him. All the family members try to hide him from society. Only her nephew Arko supported her because he was unaware of her sexual identity. However, Arko learned the reality of her sexual identity by seeing him in a saree and makeup like a woman; he could not accept him as a woman. She tries to make Arko understand her emotions and urges for his support, as other family members never accepted her as a woman.

Family Members Forced Them to Be Cis-Gender: Yes, family members forced them to be cis-gender. They are forced to dress like a man and keep beards and moustaches. The family does not allow draping saree and makeup on faces as a woman. In the whole film, the character Sujana is represented as a man; only two times she appears as a woman draping with a saree and makeup.

Society Supportive of the LGBT Character: Society is not supportive of the LGBT character. In this film, instead of giving him a free life, his family hid from society and kept him locked and isolated in a room since childhood. They do not allow him to go out and meet people around.

Being Teased, Humiliated or Physically Abused: The character being teased, humiliated and physically abused several times since childhood. She got molested by a fourth-class staff in school after the staff knew her sexual identity. Once her father beat her because she came out by draping her mother's saree on her during Saraswati puja. She used to be beaten by her younger brother several times. In a scene, she was singing at midnight with her nephew; her younger brother shouts at her with bad manners, calling her a pervert. In another scene, she goes outside without letting people know when she finds her door unlocked. They searched for her everywhere and found her at kumudpuri. When she returns with her nephew, her younger brother starts beating her and warns her that if he sees her around in the house, he will kill her. There is another scene where Arko finds her touching his girlfriend's body then Arko also humiliates her by calling her a pervert dirty mind. That is how she always gets teased, humiliated and physically abused.

What Happened at the End for the LGBT Character: At the film's end, Sujana kills herself and leaves a letter for her nephew with her crowning wish. she urges Arko to stand by helpless people like her. It represented how the mental condition of the third gender and what treatment they get from society. Society forced them to kill themselves.

CONCLUSION

Times have changed. Thus, sexual minorities or the Queer community gradually find a place in Bengali cinema. Positive representation of lesbians, gays, bisexuals, transgender people, hijras and those who identify as queer in films has been a salve for the community. Indian society is evolving, and so is the people's thinking about the queer community. Few directors have attempted to make films about LGBT people and their issues, but many issues remain obscured. The commercial failure of queer films also raises the issue of whether people's attitudes toward the LGBT community have changed, are changing, or are about to change. The question of whether or not the gender discourse has accommodated them remains a challenging one. The community is looking into a more holistic portrayal in films. It is crucial to acknowledge and highlight the new challenges that our society is facing. Many people in India are hesitant to publicly discuss their gender identity and sexual orientation for fear of discrimination by mainstream society. Much greater representation in movies is required to create the much-needed platform for communication among people who are still in the dark.

Chitrangada may be described as a film that puts up a mirror to a liberal society that is still trying to figure out how to deal with homosexuality. The movie depicts the daily challenges of a queer man, his connection with his parents, and the community around him in a brilliant way. When his final surgery approaches, he realizes why he is doing all of this and what his real identity is. Does he truly have an identity? Did Chitrangada, the character he has been portraying in the play, really have an identity? At this critical juncture, he asks his surgeon to remove the implants and stop the surgery at the movie's end. The movie depicts the daily challenges of a queer person.

This research paper attempted to highlight the plight of India's LGBT community, which has long been denied their true identity and representation in the social and cultural spheres of society, as well as the active role that Bengali films can play in promoting them into the mainstream discourse through realistic and authentic screen representation. The community can achieve widespread recognition until LGBT film characters are treated fairly. The future is both fascinating and terrifying. It is joyful because LGBT rights are at the forefront of the fight for justice and equality for all peoples on this earth, but it is also terrifying because we're being driven back by the rise of irrational forces from all religions. The future is both fascinating and terrifying. As the prominent Indian hagiographer of homosexuality, Ruth Vanita has repeatedly warned mainstream India; "The British did not bring homosexuality into India; instead, they introduced homophobia".

The LGBT community's engagement must be proactive, whether with the political class or through art or Film. They will not be capable of achieving equal rights until they go out and insist on it from political parties. Why is there such secrecy when it comes to sexuality? Why is it necessary to conceal one's sexual orientation? If one does not have to hide if they are straight, why should they have to hide if they are lesbian, gay, bisexual, or transgender? This is essential for human existence, to live one's life with dignity. This neutrality is not benefiting the queer community, and it has to end. Being out matters!

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STUDY ON RECENT DEVELOPMENTS IN MERCHANT BANKING IN INDIA

Harshil Sharma

ABSTRACT

An institution that offers financial services to businesses is known as a merchant bank. The Securities and Exchange Board of India's laws and regulations for merchant banking enable the industry not only offer financial services but also point investors in the proper way. A significant part in today's economic climate is played by merchant banking. Investment banking is another name for a merchant bank. In contrast to investing, merchant banking takes a more long-term perspective. An institution that provides a broad range of services or operations, such as underwriting of shares, Project Counseling and Insurance, is referred to as a Merchant Bank. Trading with multinational corporations is a specialty of these institutions. Buying and selling stock on the stock exchange may also be assisted by Merchant Banks. Two terms, Banking Services and Consultancy Services, are used to describe Merchant Banking. The information in this paper may be used to better comprehend Merchant Banking's core concepts, primary goals, various roles, market position, and most recent developments.

Keywords: Merchant Banks, Financial Institutions, Portfolio Management, C counseling.

1. INTRODUCTION

1967 was the first year that National Grindlays provided merchant banking services in India. The State Bank of India was the first commercial bank in India to create a merchant banking section in 1972. In 1973, various other commercial banks, including ICICI and many others, such as Canara and Bank of India and Baroda Punjab National and UCO banks, followed suit. A "commercial bank" is a financial institution that loans money and offers financial guidance. A merchant banker serves as a go-between for businesses and investors alike. Bank, corporation, and firm are all acceptable forms of the Merchant Banker. Commercial loans and investments are the primary focus of merchant banks. **According to Dr Singh & Saxon (2017):** Many financial markets and organizations are involved in Merchant Banking, which is a blend of consulting and banking services. Shares may also be purchased and sold with the help of a merchant bank. Banking Services, etc. is a combination of two terms known as "merchant banking." **According to Dr. Jyoti Lahti (2016):** Merchant banks provide a number of services, including portfolio and problem management as well as project and business consulting, among others. Merchant banks are required to register with the Securities and Exchange Board of India in India (SEBI). The Indian capital market is governed by the SEBI Rules, which were established in 1992. Unlike dealers and brokers, merchant banks are referred to as commission agents. The basic purpose of merchant banking is analyzing issue management guidelines. Capital markets rely heavily on merchant banks. Their actions have the potential to influence market trends and developments. Corporations, international corporations, export houses, and other such entities are among the most significant clients of merchant banks. **According to Tarzana Huda (2017):** The growth of the economy relies heavily on merchant banking. The merchant bank's efficiency in achieving growth in the investment sector, such as capital gain, capital loss, brokerage, and portfolio management, etc., has been tested and verified. The merchant bank is the sole organization that has direct access to both domestic and international policy changes. **According to CS Gotham (2017):** In the field of merchant banking, companies provide securities to their customers in the form of stocks, bonds, and bank loans. In addition to providing capital, merchant banking also directs SEBI in the proper path. A merchant banker serves as a go-between for companies looking to raise capital and potential investors. A bank, corporation, or other business entity may serve as a merchant banker. **According to wag mare Shiva (2015):** Underwriting, loan syndication, and project marketing are just a few of the

services provided by merchant banking. When a merchant banker is aware of the needs of a company, they may place financing orders with financial institutions such as banks and money markets. Financial services for both businesses and individuals are included in merchant banking. Different sorts of services, such as those offered by merchant banking, include:

- Project Counselling and Issue Management
- Portfolio Management and Loan Syndication
- Underwriting of Public Issues and Broker in Stock Exchange
- Lease Finance and Mutual Funds
- Non-resident investment Counselling and Corporate Counselling

Features of Merchant Banking:

There are various types of Characteristics in Merchant Banking as follows:

- A large fraction of the entire workforce is comprised of people who have authority to make important decisions.
- Quick Decision Process.
- Low rate of Profit Distribution.
- High Liquidity Ratio
- Low rate of Profit Distribution
- Concentration of short term and medium-term contract.
- High density of information.
- Changing Policy of Foreign Investment.
- Provides Quality Information.
- Emphasis on Fee and Commission Income.

2. Research Objectives

The main objectives of this study were:

- To learn more about merchant banking and its goals.
- To learn more about merchant banking's offerings.
- Analyze the most current changes in the world of business banking.
- To Study the SEBI regulations framework on Merchant Bankers.

3. Research Hypothesis:

After thoroughly research, it lies on the research to make following hypothesis.

Null Hypothesis (Ho):

- In Merchant Banker the development are up to the Mark.

Alternative Hypothesis (H1):

- In Merchant Banker the development are not up to the mark

3. METHODOLOGY OF STUDY:

The current study, which relies on descriptive research and secondary data, is often the most practical and economical choice. Literature reviews, research papers, and academic journals provide the foundation of this study. The data is also collected from Government Websites.

4. Concept of Merchant Banking:

Merchant banking may be described as a skill-oriented professional service offered by merchant banks to their customers in exchange for compensation in the form of commissions or fees. Banking and consulting services are combined in Merchant Banking. Those who desire to lend, borrow, or invest in a financial institution may rely on the services provided by banking. Providing advise, counsel, and services is what a consulting firm is all about. It aids a new company owner in getting their venture off the ground. It aids in the collection of funds and the expansion of the company. The term "merchant banker" refers to any individual engaged in the issue management industry, either as a manager or consultant, or as a manager or consultant of a corporate advisory service. When it comes to international and domestic policy, merchant banks are the only institution that has a direct impact on each other. The team of experts will maintain latest information on tax policy, trade policy, and exchange policy etc. Merchant banks are the store houses of great information. They provide the latest information with high quality. The information will be the most authentic and suitable to corporate sector. The Corporate Sector is usually composed of business bigs, big industries, large companies of domestic & foreign, major banks, finance and insurance companies, service industries etc. Thus the corporate sector is the life provider to the fast economic growth. The significance of corporate sector lies in its huge financial resources, large size business dealings, adoption of high technology, employment of great skills and maintaining international quality standards. Thus, the sector is responsible for the nation's development. All the advanced countries are able to achieve the progress through the corporate sector. Merchant banks are international in nature. Merchant banking includes a wide range of activities with a large variety of services. All these services are primary functions of merchant banks. The list of modern merchant banks functions are very long with an increasing addition of new functions frequently Merchant bankers are the institutions established only for the corporate sector. Their role in country's development is significant.

5. Aims of Merchant Banking:

1. To analyse issue management regulations.
2. Merchant banking functions are examined in regard to SEBI laws, as well as their relationship to other financial institutions.
3. To assess the operational and monetary performance.
4. examination of merchant banking's contribution to the evolution of financial markets
5. To provide long-term funds to clients

6. Services of Merchant Banking:

There are various types of services offered by Merchant Banker:

1. **Portfolio Management:** The goal of portfolio management is to minimize risk and maximize profit. The term "portfolio management" refers to the practice of managing a portfolio of stocks and bonds.
2. **Corporate Counseling:** Merchant banking services is a wider range of services that comes under the corporate Counseling such as Project Counseling, Project Management, Working Capital Management and Fixed Deposit.
3. **Management of Capital Issues:** Merchant banking services comprises selling securities, equity shares, bonds and preference shares to the investors.
4. **Credit Syndication:** Merchant bankers specialize in preparing projects, loan applications, and generating short-term and long-term credit from a variety of institutions in order to finance the project or satisfy working capital needs.

7. Function of Merchant Banking:

1. By providing shares, bank loans, and debentures, merchant banking assists its customers.
2. Managing dividends and interest on debentures is made easier with the aid of merchant banking.
3. Short-term money market instruments issued by the Reserve Bank of India (RBI) are used by merchant banks.
4. Advise on securities market transactions such as purchase and disinvestment
5. A merchant banker is a stock trader who works in the stock market.
6. A merchant banker is someone who provides financial services to businesses and individuals in both the domestic and foreign markets.
7. Clients of merchant banking might also get assistance in planning for future growth.
8. As a result of merchant banking, capital may be sourced from both local and foreign markets.

8. Recent Development of Merchant Banking in India:**○ Setting up of Banks Subsidiaries:**

All businesses need to have a strong financial foundation. Corporate sectors need a wide range of financial services in order to compete in today's market. A growing number of businesses are turning to finance to meet their ever-increasing needs. Nationalized banks' commercial banking divisions are creating independent companies to meet this growing demand.

○ Reorganization of Private Firms:

The merchant banking divisions of the nationalised banks are forming separate subsidiaries to accommodate the increased demand for diversified financial services from companies. As a result of this intense competition, private merchant bankers have begun to shift their focus.

○ Establishment of Stockbroker Underwriters Association:

Established in 1984, the Stockbroker Underwriters Association (SUA) aims to protect investors' interests, disseminate information about the capital markets, and develop standards of conduct for underwriters and other services for its members and the general public. The SUA is a non-profit organization. Members of the Stockbroker Underwriters Association cooperate with merchant bankers to promote capital market activities.

○ Securities and Exchange Board of India:

This board was founded on 12 April 1992 to safeguard investors' interests, encourage the growth of the securities market, and to regulate securities markets. Board approval is required for people in the securities market to do their business. This includes merchant bankers, underwriters and subbrokers as well as portfolio managers, mutual funds, and so on. For the most part, Indian merchant bankers operate under Securities and Exchange Board of India's purview (SEBI).

○ Discount and Finance House of India (DFHI):

The Reserve Bank of India (RBI) established DFHI in April 1988 in order to expand India's money market by collaborating with public sector banks and all of India's financial institutions. This organization's principal purpose is to establish a thriving secondary market for money market instruments to address their existing liquidity restrictions.

○ Credit Rating Information Services of India Ltd. (CRISIL):

The first credit rating agency in India, CRISIL, was established in 1988 with the goal of improving the functioning of the Indian financial markets. Many corporations and financial

institutions rely on its ratings, research, risk, and advice services. In addition to financial, commercial, and technical information, CRISIL publishes reports on public and private sector firms on a regular basis. Services from CRISIL are designed to give investors with unbiased and credible evaluations of new public issues' basic strengths.

○ Stock-Holding Corporation of India Ltd. (SHCIL):

To guarantee the safe storage, distribution, and recovery of assets, the All India Financial Institutions (AIFI) founded SHCIL in 1986. India Services Limited, a stock holding company. Three subsidiaries of stock holding company are stock holding document management services ltd and stock holding securities ifsc ltd.

9. SEBI Regulations Frameworks on Merchant Bankers:

According to the Merchant Bankers' Regulation Act of 1992 (SEBI), any person involved in the issue management business of selling, purchasing or subscribing to securities is a commercial banker. This definition is consistent with SEBI's definition of a "merchant banker." The SEBI's certificate of registration is now required for any company wishing to serve as a merchant banker. Keeping in mind that a corporation must be registered in order to protect any merchant banker activity, such as managing issues, consulting or advising on them, underwriting or managing a portfolio. One had to fill out an application form and complete two conditions in order to get a certificate of registration.

- (i) **Operational Capabilities:** As per operational capabilities, merchant bankers are divided as per their roles.
- (ii) **Capital Adequacy norms:** All registered merchant bankers are categorised into four categories by the Securities and Exchange Board of India (SEBI). It is computed by subtracting the amount of money that has been invested in the company from the amount of money that has been left over. SEBI's Capital Adequacy Norms are based on these categories.

“Category of Merchant Banker	Description	Minimum Net Worth
Category 1	These Merchant bankers can act as issue manager, advisor, consultant, underwriter and portfolio management.	Rs 5 Crores
Category 2	Such Merchant bankers can act as advisor, consultant, underwriter and portfolio manager. They cannot act as issue manager of their own but can act co-manager.	Rs 50 Lakhs
Category 3	They are allowed to act as underwriter, advisor and consultant only. They can neither undertake issue management of their own nor they act as co-manager. They cannot undertake the activities of portfolio management also.	Rs 20 Lakhs
Category 4	Merchant banker can only act as consultant or advisor to an issue of capital	NIL”

10. CONCLUSION

Indian commercial banking has a substantial effect on the economy. Merchant banking services include project and issue management, portfolio management, loan syndication, underwriting of public issues, stock exchange brokerage, leasing financing, mutual funds, non-resident investment advice, and corporate assistance. They also facilitate the dissemination of issues. The Securities and Exchange Board of India (SEBI) registers all commercial banks in India

(SEBI). Merchant banking supports the development of India's economy. It serves as a safety net for businesses entering foreign markets. Both investment and non-investing actions aid the entrepreneur in launching new enterprises and advancing the industrial sector. Improving investment climates and growing capital markets are two of merchant banking's key objectives. Consequently, Merchant banking is an integral part of the Indian financial system.

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SUPPORTING STORYTELLING TO ENHANCE TEACHING- LEARNING FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS IN AN INCLUSIVE CLASSROOM SETTINGS

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ABSTRACT

The current study explores supporting storytelling to enhance teaching-learning for students with special educational needs (SwSENs) in an inclusive classroom setting. The viewers are always captivated by a storyteller with an intriguing narrative. This study aims to determine if and how storytelling as a teaching-learning strategy might help SwSENs acquire new information. It would be best if you interested people in what you are discussing until you can keep your listeners engaged. Persons who hear their stories are profoundly affected by them. Using this technique to tell a story is an everyday practice. Generations upon generations of storytellers have shared their secrets. During this session, learn to tell stories and perform them in front of live listeners. SwSENs take this course in the classroom or as an extracurricular. Storytelling can easily be mixed because it is only a few minutes long. The study aimed to see if a narrative storytelling technique may help first-graders better accept and understand SwSEN. The book's material will be utilized in storytelling activities to help children better comprehend and identify their educational aspirations. Our humanity may be conveyed via the art of storytelling. It is impossible to emphasize the importance of storytelling. The cornerstone of all communications is interpreting and analysing ordinary happenings and the more considerable aspects of reality. In addition to the original text, the art of storytelling is a vital part of our culture. Identity is an ongoing procedure that encompasses sharing, evaluating, and offering stories—the estimated significance and content of a report by the audience members. A film or play's storyline, aesthetic qualities, or even the lyrics and stage management of space cannot express immediacy and vibrancy. To tell a story, you need both words and movement. Much activity is required in your story. Arms and legs are expected to be involved. The story will continue with your hands and voice. An excellent approach to enhance your narrative skills is to do this practice. Storytelling exercises based on the book's content will help pupils understand and acknowledge exceptional educational needs. Students in first class, one of whom had, were tasked with acting out a storybook about a tiny turtle born with the condition as part of the program. Whenever a listener and a storyteller work collaboratively, the story evolves. Comparable arguments can be made for employing storytelling as a teaching-learning strategy in a wider variety of school settings, given that most SwSENs struggle in more inclusive environments.

Keywords: Storytelling, Teaching-Learning, SWSENs, Supports, and Inclusive Classroom Settings

INTRODUCTION

Since storytelling and its impact on societies precede historical facts, it was the only way individuals could retain and convey social practices, ideas, and heritage. Storytelling has been proven to be the most responsible way for humans to recall things, and storytelling comprehension has proven the most reliable approach for people to recognize things (Abrahamsen, 1998). As a result, storytelling has shown to be a highly effective teaching method in folk tales, as it renders information accessible and portable. In actuality, he thinks storytelling has aided societies in surviving by conserving feelings and concepts for future

generations. A story is frequently far more complicated than a simple example. A story is about what happens when a specific event occurs regarding a particular set of individuals. Storytelling stimulates our minds and emotions and might lead to severe image formation (Green & Brock, 2000). Persons exposed to storytelling react almost intuitively as if they participate in the story's actions (Polichak & Gerrig, 2002). Using all these tactics to help pupils learn the subject in your class is essential. Students are awake and focused, anxious to determine what will happen next and how the story will end. Bruner (1986) contrasted the paradigms (logical, scientific) and storytelling thinking styles, albeit these are not mutually exclusive for inclusive classroom settings. In the classrooms, storytelling would stimulate students' attention, increase educational pacing, allow students to recall information, decrease pupil hesitancy or concern, and create teaching methods between students. Caine et al. (2005) argue that storytelling should be used in classrooms since it is consistent with the cognitive scientific study on how well the mind absorbs knowledge. According to Atta-Alla (2012), storytelling is a technique to convey and evaluate dynamics. Storytelling is essential since it can cross linguistic, societal, and intergenerational divides. Storytelling is a strategy employed by persons of different ages, eliminating the notion of age distinction. In instructional support, storytelling is compelling because it helps children construct inclusive classroom settings, develop psychologically, and become more aware of environmental aspects. Storytelling can also help children strengthen their reading ability. We all know that storytelling always has played an essential role in child behaviors. Storytelling can encourage students to develop their creativity, try to make sense of concepts, improve their vocabulary knowledge, and establish a passion for learning. Storytelling can also teach society's norms, morality, and differences using storytelling. Storytelling is a method of teaching-learning for SwSENs how to improve their language skills by increasing their vocabularies, increasing their inventiveness, improving their articulation, and structuring their ideas. This research aims to see how storytelling helps students communicate and react to stories that deliver events in an inclusive classroom setting.

Students with Special Educational Needs

Whenever we say "special needs," what exactly does this mean? It comprises cognitive, learning needs, language and communication, and social and sensory necessitate (visual and hearing impairments). Physical standards are demands that affect a developing brain and function well in society. A few are merely temporary; for instance, a pupil may experience specific emotional requirements due to this issue or physical challenges as a disease condition, which will also subside. Some provisions will remain, causing people to classify themselves as impaired individuals or be branded by others. Many students have held positions with kids and adults. This new perspective on disability as a component of societal diversity boosted disabled people's independence by allowing their organizations to actively advocate for human privileges, culminating in a paradigm change for students with special needs (Harpur, 2012). Estimates put the total of children with SEN has risen significantly over the world in recent years. The movement towards inclusive education has modified the SEN criteria, which has significantly impacted incidence rates. Under inclusive education, the focus has switched from poverty, wherein the issue is with the particular kid, to a social model. The surroundings, the education sector, and the school atmosphere are all considered (Kinsella & Senior, 2009). Governments collect information about children with SEN in various ways based on their policy on SEN, leading to substantial disagreement about how to characterize SEN and classify kids so that comparisons can be more relevant (Florian & McLaughlin, 2008). The description of SENs has evolved, and as a result, our estimates of how many pupils will still have them have also developed. Issues with defining SEN, integrating, and even including SwDs, among the most disputed, debated, and controversial concerns in today's modern education plan assessment, prompted those changes (Meegan & MacPhail, 2006). The procedures were tested on kids and adolescents with mild, moderate, and severe intelligence or learning difficulties, adolescents

with developmental speech impediments, acquired brain damage, or autistic disorder, and those who had been abused mentally. In some way, intellectual, cognitive, sociological, creative, relational, bodily, and spiritual development are all influenced. Whether we treat hearing loss or deafness, all therapists advocate using many languages and multidisciplinary techniques in an inclusive classroom setting.

Importance of Storytelling

Storytelling is narration or a story to evaluate, communicate, and profit from a particular skill. Storytelling is a powerful paradigm, setting, and design tool for dealing with problems, self-education and accomplishing success. As textbooks, storytelling may be a powerful instrument for communicating effectively (Ohler, 2013). The capacity to capture a listener by conveying a tale through comments and gestures is described as storytelling (Soleimani & Akbari, 2013). Storytelling may fill a need, provide a basis, and provide a selection of plausible solutions for tackling complex tasks, teaching oneself, and accomplishing specific goals (Ohler, 2013). Lessons in storytelling can entice even the cruelest readers to pick up a book. "By word and action, communicating the story to one or more spectators" (National Council of Teachers of English, 1992). To put it another way, it is not like exchanging books; it creates a beautiful story based on memories (Dujmovi, 2006). The narrative uses the emotional aspect of communication to include both the spectator and the teller. Experts believe that the most excellent way of teaching early reading abilities is through community engagement and discourse with all community members (Dugan, 1997). Due to its obvious massive benefits, storytelling is among the finest strategies to help children develop the four talents in their first and second grades. It also aids in developing children's verbal abilities (Mokhtar, Kamarulzaman, & Syed, 2011). To start, a story is a written account of actual or imagined events and a storytelling structure with its manner and characters. Learners can also communicate, discuss their experience and gain from the information, ideas, and beliefs by employing the 'storytelling' technique. Moreover, stories are essential knowledge components and a basis for memory consolidation. Ultimately, storytelling connects the previous, current, and potential (Barzaq, 2009). Storytelling is communication surrounding historical events to pass along experience and knowledge from successive generations. The use of storytelling techniques can help to make education more humane. They enable learners to express themselves in creatures with solid views. Storytelling stirs students' emotions, causing them to smile, cry, fear and become outraged (Rossiter Maynard, 2005). Storytellers use multiple stimulating sentiments of an event in storytelling and inventiveness in delivering a sequence of stories, body position, and body language to grab a listener's focus (Stanley & Dillingham, 2009). Defined storytelling as a channel through which people share their experiences and learn about other people's perspectives. Maynard (2002) claims that storytelling is essential for societies, governance, and education. Storytelling helps us to understand ourselves and our inclusive classroom settings.

Storytelling and Teaching-Learning

Storytelling is a means for sharing and interpreting experiences. Peter L. Berger says human life is narratively rooted; humans construct their lives and shape their world into homes in terms of these groundings and memories. Stories are universal in bridging cultural, linguistic and age-related divides. Storytelling can be adaptive for all ages, leaving out the notion of age segregation. Storytelling can teach ethics, values, cultural norms, and differences (Davidson, Michelle, 2004). After then, the listener can interact with the material and imagine unlimited possibilities. Together, the storyteller and the audience can uncover best practices and develop new ideas. Because stories often have varying degrees of importance, viewers must pay close attention to grasp the story's main points. Through listening, storytelling teaches children the value of respect (Jo-Ann Archibald, Jo-Ann Archibald 2008). By connecting children with their surroundings through the story's theme, children are given more independence through repetitive words, which aids in their education and competence acquisition (Gail Ellis & Jean

Brewster, 2002). Playing this game teaches children to respect all living things, value interconnection, and endure in the face of adversity. Students will be engaged by using the sensation of contact learning strategies like singing, dream interpretation, or dancing (Beth Fisher-Yoshida, Kathy Dee, and Steven Geller, 2009). Learning is most effective when it takes place in environments that provide authentic social cues about how knowledge is applied (Andrews, Dee; Hull, Donahue, 2009). Stories function as a tool to pass on learning in a social context. So, every story has three parts—first, the setup (The Hero's world before the adventure starts). Second, the confrontation (The hero's world turned upside down). Third, the resolution (The hero conquers the villain, but it is not enough for a hero to survive. The hero or world must be transformed). Any story can be framed in such a format. As a result, storytelling is a valuable teaching tool since it engages the audience and helps them retain information. Using stories as a basis for teaching-learning can be a powerful tool.

When people are absorbed in a tale, they can envision other points of view, allowing for a transforming and empathic exchange (Marsha Rossiter, 2002). Minimum coaching allows the client to stay engaged in the story while observing and engaging (Marie Battiste, 2002). Forging long-term relationships, developing new problem-solving strategies, and creating a shared understanding of the potential outcomes can be achieved by engaging in storytelling (Stephen Denning, 2000). Human knowledge is based on stories, and the human brain consists of the cognitive machinery necessary to understand, remember and tell stories (Schank, Roger C.; Robert P. Abelson, 1995). Humans are storytelling organisms that lead storied lives individually and socially (Connelly, F. Michael; D. Jean Clandinin, 1990). Stories mirror human thought as humans think in narrative structures and often remember facts in story form. Points can be understood as smaller versions of a larger story. Thus storytelling can supplement analytical thinking. Because storytelling requires auditory and visual senses from listeners, one can learn to organize their mental representation of a story, recognize the structure of language, and express their thoughts (McKeough, A.; et al., 2008). Stories tend to be based on experiential learning, but learning from an experience is not automatic. Often, a person must attempt to tell the story of that experience before realizing its value. In this case, it is not only the listener who learns but the teller who also becomes aware of their own unique experiences and background (Doty, Elizabeth, 2013). This storytelling process is empowering as the teller effectively conveys ideas and, with practice, can demonstrate the potential of human accomplishment. Storytelling taps into existing knowledge and creates cultural and motivationally bridges toward a solution in an inclusive classroom setting.

Digital Storytelling Approach

In the digital world, the art form of storytelling has taken on a new record. Since the dawn of time, tales have been used to spread consciousness, ideas, and ideals over the globe. There are various ways of telling a story. Storytelling has been adopted for each medium, from the bonfire to the tiny television to the laptop screen. When digital storytelling captivates kids, they are more inclined to attempt education. By incorporating new and fantastic technology into the classroom, it has been found that students' levels of achievement and enthusiasm improve. Academics used digital storytelling to produce an outstanding performance for their students, which they thoroughly liked. In some instances, integrating children's stories into music is beneficial. No one underestimates the importance of storytelling for kids when it comes to having a small quantity of fun and learning things surrounding them! In 2008, (Wright et al.) Because O'Byrne et al. (2018) examined kids partaking in preschool digital storytelling programs, it is possible that its students cannot even build its unique digital storytelling. The preponderance of primary education is administered by for-profit, non-profit, or community-based organizations. The academics were provided with a set of schools judged acceptable or excellent. SwSENs could not produce digital storytelling because of a shortage of pupil laptops that every classroom can use.

According to experts, new technological breakthroughs have made storytelling easier. The offered noises are used because they should not need to understand how and where to generate monsters and other noises. The use of recorded creature sounds bolsters this film's realism and emotional depth. By providing visual clues, such as moving images, music, and emotional responses, digital stories are more compelling than traditional ones. Digital storytelling may be used in many school contexts because of its many instructional functions (Wang & Zhan, 2010). According to Choi (2018), entertainment educational standards have been used to boost students' engagement and enhance their efficacy for both educators and pupils. When additional varied teaching strategies, such as digital storytelling, are combined, classrooms can be transformed into places where kids are deeply and emotionally engaged in their studies (Smeda et al., 2014). They are in school, and digital storytelling is used to its actual ability. This method has the potential to promote student participation and boost school achievement. For art, scientific, and ethical disciplines, this study found that students who used digital media to tell stories had a higher degree of storytelling than those who did not. They talked to each other before, during and after the storytelling event. Storytelling in digital technology is based on the idea of educating students (Bromberg et al., 2013). This results in a higher student level of engagement and better academic outcomes (Dupain & Maguire, 2007). Studies have demonstrated that reading comprehension is a great way to learn new material (Roussou, 2004). It was discovered that youngsters felt a deep connection to their favorite performers, storytellers, and other listeners when using digital storytelling technologies. With audio and video snippets, teachers can engage their students deeper. He asked students for an explanation, and they provided it. We all jumped right in whenever our heroes did. Children enjoyed interacting with the performers and were mesmerized by the show's vibrant graphics, throbbing soundtrack, and sound. SwSENs creativity and identity are fostered by digital storytelling in an inclusive classroom setting.

Multisensory Storytelling Technique

"Stories are nonetheless delivered but may be enjoyed with everything our senses," as the term "multisensory storytelling" puts it (Fornfeld, 2013). Devices commonly used but chosen for their sensory attributes (e.g., smell and noise) constitute a significant storytelling element. During the late 1980s, MSST was developed by Best as a unique technique (Fuller, 2013). Fuller (1999) suggests the MSST as among the most pleasant exercises for children, teens, and those with SEND (Boer & Wikkerman, 2008). Again for the past couple of years, MSST has been widely popular in America and Europe, primarily in special education (Lawson et al., 2012; Grove et al., 2015). Sensory storytelling can help persons with cognitive difficulties, such as SwSENs, engage more effectively with others. By adding a broad array of sensory input into the multisensory method, we seek to improve social relationships and aid cognition for SwSENs. For persons with SENs, unique and effective multisensory storytelling techniques could have therapeutic effects. Individuals with special needs can benefit from multisensory techniques because they present new and fascinating challenges and opportunities for exploration. It is necessary to send this therapeutic environment by using multisensory surroundings (Pagliano, 1999), multimodal pedagogies (Longhorn, 1988), and basal activation (Frölich, 1998). A team of ten people studied the behavioral patterns during storytelling sessions. (Young, Lambe, Fenwick, and Hogg, 2011). Sensory item containers, sensory object excursions, and sensory object experience books improve all areas for children with SENs who begin to write and speak. There is, therefore, no evidence supporting the usefulness of the techniques, which has led to a wide range of application methods in the classroom.

Visual and auditory associated with several SENS-affected bilingual persons were tested using multisensory storytelling. Children with SENS can generally learn speech using the multisensory storytelling approach, but the results were different based on each characteristic. Multisensory storytelling has a variety of beneficial uses and ideas for thorough studies.

Multisensory storytelling methods were analyzed by parents and principals using behavior genes and subjectively brief videos. After conducting several multisensory storytelling sessions, we noticed that the storytelling had a beneficial impact on peer interaction. The storyteller's movements and vocal tone drew some audience members. Teachers and parents agree with these findings. Most parents and teachers thought that their parental social goals had been met. People's opinions can tell us a lot about their achievements. Some parents and teachers have reduced "difficult behavior," such as severe physical aggressiveness. Teachers have discovered that the multimodal approach is a successful teaching strategy in the classroom. Parents and teachers are comfortable interacting while learning more about their children because of the SwSEs. This show is a big success for listeners and storytellers in an inclusive classroom setting.

Benefits of Storytelling

Storytelling has been around for many years as a system of teaching. Individuals all over the globe have used storytelling for centuries to pass down their beliefs, culture, and experiences. A listening person's feelings and intellect are piqued and enlivened when a story is narrated. Every point made in a tale or demonstration will have a more significant effect on this. Among the numerous advantages, the following stand out as particularly important:

- Learning a language can be made more fun by storytelling to children. Such individuals can motivate young folks to continue their education.
- Storytelling requires much mental energy. Authors fresh to the craft may become immersed in a story whenever they identify with a character's voice or try to make sense of a story through its story and pictures. The children's ingenuity grows as an outcome of this creative meeting.
- In a classroom, children feel more connected whenever stories are read out loud. Children's social, financial, and cognitive talents can benefit from storytelling in the home.
- Repetitive listening to tales is a favorite pastime for the child. Some concept elements are becoming commonplace, while some were exaggerated as an outcome of the constantly exposed. Search terms that are frequently used in tales are frequently researched. Children know to foresee the future in a story by remembering each element to use this strategy. By reiterating key points, you can pique the interest of a reader. Understanding and anticipating a language's content is an essential aspect of learning a fundamental language.
- Teaching youngsters a wide array of words in various significant and acknowledged settings through storytelling can help them better understand the world around them and eventually become a component of their speech.

CONCLUSION

Storytelling is a team endeavor by definition. Those stories are not going over well with the public anymore. You can learn the plot by watching television series or films and absorbing the substance. The presenters do not provide any visual representation of the individuals or the historical era they discuss. Children should be exposed to well-written stories. Teachers can use props to bring the story to life for their students. Tables and chairs are not the only things that can tell stories. Puzzles, numbers, facts, and a calendar can all be used to help children understand new concepts. Because of this, active student participation will rise. Teachers can use the outcomes of this study to design new teaching methods. Education for new people with SENs is critical to their well-being. This art form is essential to creating a personal and global story. A storytelling theatre practice was determined to help first-graders better understand and accept children with SENs. As a beginner, starting with a book, you are already acquainted with is best. You are operating when you dislike the floor, which can be challenging. Here are a few things to remember as you read the story. To assist pupils in improving their verbal language,

stories could be utilized. Gender has no bearing on a teacher's view of storytelling in a lesson on oral comprehension. When it refers to adopting storytelling to help learners know oral competency, it does not rely on the teacher's experiences. Irrespective of the teacher's background, storytelling is a valuable teaching verbal skill. Storytelling was emphasized as an effective teaching-learning technique throughout the program. This has been the case throughout history and will continue to be the case in the coming. They believe that sharing stories is a beautiful technique to convey and absorb new information since it helps us understand our own stories and activities. In today's fast-changing, SwSEns must create strategies to swiftly acquire and execute new knowledge to keep pace with their competition. Thus, learners can enhance their general communication skills in an inclusive classroom environment by using this method in inclusive classroom settings.

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TEACHER EDUCATION IN INDIA: THE WAY FORWARD

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ABSTRACT

From time immemorial teachers have played an important role in shaping the socio-cultural practices of the society, by enriching the values and ethics regularly. In the pre industrial revolution period, teachers and Philosopher's like Aristotle, Plato, Socrates, Confucius, Chanakya, and others, played an important in shaping the society, After the industrial revolution in sixteenth century, the very nature of the human society changed drastically, and the teachers, Philosopher's and social reformers were side lined, because the market controlled the society, and scientists, engineers, and technicians, became the first preference of the society. The earlier assumption that the teachers are born, not made started changing and the teachers were trained in the institutes as the number of schools multiplied and demand for teachers increased, the new education policy 2020 emphasis is on the technical and vocational training of children and the skill India program, so that the child after completion of studies, becomes a skilful member of the society and instead of becoming a jobseeker, becomes a job creator. the seeds of this vocational training of students were sown before independence in 1937 when the Wardha committee on education in India headed by Dr. Zakir Hussain proposed vocational training for children in various trades. The paper deals with the history of teacher education in India and also the developments in the field of vocational training of the students during their schooling. The secondary sources of data were used for the study, that is Government of India publications, another sources.

Keywords: Values, Philosophers, Engineers, Vocational, Skilful.

INTRODUCTION

Indian society has always honoured the teachers for their selfless contribution, by placing the guru above the level of God, the success of a guru was measured with the success of the pupils as the pupils after completion of their education, performs in the specific skills , having learnt from the Guru used to be the seat of power, and institution unto himself, later, with the passage of time the authority receded and the responsibilities also changed, during the colonial rule, the teacher became the paid servant, or say salaried employee of the British government which still continues.

The education system which used to be independently innovative had become an instrument to ensure loyalty to the ruling class, and plays second fiddle, instead of being the main priority the whole system of education became a means to save the interests of the rulers, as the curriculum /syllabus was prescribed according to the policies of the government of the day and whatever suits the interest of the government was only allowed to be taught in the schools and colleges as teachers had no freedom of choice and were merely reduced to be the mouthpiece to pass on the instructions prescribed in the form of curriculum and the government machinery tried to ensure not only the 100% implementation of the curriculum, but also to reduce the chances of any deviation from the curriculum.

The Britishers could not bring teachers from Britain, to teach the Indian people as it was not their prime concern, and also not feasible economically ,and from the safety and security point of view also, Specially after the first revolution of independence in 1857, they only occupied the key posts at the research level ,as professors ,so that they can use those reperches ,and innovations for their own benefit ,the monetary help and grants were given to those universities and colleges which were acting as the instrument to serve the interests of the British empire .the

school teachers and school education was almost neglected, the British establishment deliberately gave an impression that school education in India is a burden for them. The school staff specially the head master and the teachers were used more as an educated labour, and besides maintaining their own school records teachers were to perform other duties assigned to them.

The continued deterioration of the education system in India made the leaders of the freedom movement lead by Mahatma Gandhi, Dr Zakir Hussain to form a committee to study the status of education, which proposed the system of basic education, which suits the needs and requirements of Indian people this committee was known as the Wardha committee, gave its report in two phases in 1937 and 1938 separately, the basic education plan proposed by the Zakir Hussain committee was known as “Nai Talim” proposed vocational training for every student in the age group of 6 to 14 years simultaneously during the school education period, or the basic education, Zakir Hussain committee also proposed free and compulsory education for all, not only this the teachers were to be trained in various crafts, and skills so that they can train their students. The seeds of the vocational training were sown during the pre-independence period by the Dr Zakir Hussain committee, although the report could not be implemented as the World War II broke out, but the vocational and commercial education, which our new educational policy 2020 proposes has its seeds in the Wardha committee report itself.

THE BACKGROUND

There is a popular saying in the intellectual and research circles, the teacher is the most resourceful person, which clearly means that a teacher can teach even without the necessary infrastructural facilities, to be more specific, it means a teacher can write without the chalk by using raw coal, a teacher can write even without the blackboard by using land as the blackboard, in a nutshell it is declared that a teacher can teach like a one man army, provided the teacher has the desire or the instinct to teach and the teacher is made solely responsible for teaching learning and achievement of the students, the administration or government has no responsibility of providing infrastructural facilities in the schools with this kind of mindset the overall condition of educational system can easily be understood, as it functions in a haphazard manner, directionless, unfocused, aimless because the poor teacher is made the scapegoat for non-performance or underachievers etc.

the bureaucracy in India is working with the colonial mindset that the teachers do not generate any revenues like the banking, tourism, railways, generate therefore educational sector is a burden for the economy and should get the least allocations of funds and resources and must be handed over to private sector.

The erstwhile governments merged the Ministry of Education with the human resource development deliberately ignoring the heterogeneous character of the country where education and health sector should have got special priority, and prospects of separate planning and implementation in the educational sector are also finished. there is urgent need to concentrate on educational sector separately, given the diverse nature of society, physiography, and the children of various age groups. the teacher education institute should evolve a strategy to cater to the needs of the diverse sections of the society including females, tribals, socially disadvantaged groups, minorities and also the disabled children.

There has to be a centralised task force working to coordinate among various States, and their teacher training institutes so that the gaps can be reduced and a uniformity can be brought in teaching, teacher training throughout the country.

Proposals for separate cadre for educational administration has been discussed and debated many a times in the media and the educational circles also, that is the proposal for Indian educational services, on the lines of newly formed Indian judicial services has been discussed

time and again, the formation of the separate cadre for educational planning, implementation, and administration the I.E.S should have experts from the educational research background, those who can understand the intricacies of the educational problems, as the I.A.S. officers are already overburdened with administrative problems so the educational system remains neglected and given the heterogeneous character of our country specialised cadre is the need of the hour.

These are some of the key factors which are responsible for the worsening condition of educational sector across level be it primary or secondary, higher secondary, even the university level and also the teacher education or teacher training, which is reflected in the statistics related to the various infrastructural facilities for educational sector at every level as we compare the outcome or achievement of students in terms of enrolment, retention and achievement, then it comes out that we may have been successful in increasing the enrolment part, but dropout rate is still quite high.

METHODOLOGY

The data for the study is used from the government publications that is the Government of India. National council of educational research and training, and other secondary sources.

OBJECTIVES

1. To understand and correlate the far sightedness of our leader's mahatma Gandhi, Dr. Zakir Hussain reflected in the wardha committee.
2. To understand the legacy of the colonial rule and infrastructural facilities provided for teacher education.
3. To understand the expectations and challenges for teachers across levels from the society, after the implementation of new education policy 2020.

Delimitations: the study mainly focuses on the government and recognise teacher training institutes.

Teacher Education: The Aimless Journey.

The teachers in the pre-colonial rule were the successors of the various gurus, who used to be the student of some gurukul and during their education, they were scrutinised by the gurus from every angle and those students used to be the undisputed successor of these gurukul. later during the colonial rule, the Britishers started teacher training colleges to be used for teaching for training the teachers, which were to be appointed in the schools, as the schools were used as an instrument to implement and achieve the goals for the Britishers in India. The Britishers very smartly adopted the fragmented or patchy approach in terms of providing education in Indian subcontinent the teacher training colleges were opened by keeping in mind the interest of the British Empire Their main concern was not to educate Indians or make them Skilful, but to recruit only the clerks, and soldiers hence they didn't try to adopt uniform approach for whole of the India in terms of providing education across levels, starting from primary up to the higher levels.

Education specially school education was placed in the concurrent list after independence, hence different states adopted different strategies, and content was also not the same, which were to be implemented in their schools. teacher education probably remained the most neglected, unfocused, aimless, mainly in terms of providing skill education, vocational training, and physical education also the teachers were only trained to teach the prescribed syllabus inside the classes.

Today we are having more than 200 universities, and about 8000 colleges in India, but still, we are struggling in terms of formulating the criteria for selection or recruitment of trainee teachers,

whether it should be only interview, or written test of the subject concern, or it can be the aptitude and intelligence test.

Even the time period for the teacher training courses was also not the same, some of the courses in states were of very short Duration, and there was no uniformity in terms of the content to be taught to the trainee teachers and the duration also.

Today many of the surveys declared the young generation does not opt to become teacher as the profession has probably lost its glory, which it had earlier even the salaries are also not able to draw the youngsters to this profession, in most of the cases male teachers who are joining this profession are mainly coming from the rural background and as they have their own ideology and social values, most of them are reluctant to adopt to new methods of teaching in new surroundings, remain indifferent to children, and most of the time non serious towards their profession. The trainee teachers which are selected have poor academic background and as they have no other alternative to earn their livelihood, join this profession.

Different states have different criteria for selecting trainee teachers, and the content which is taught to them is also, not the same everywhere not only this many of the training teachers are incompetent and have no liking for this profession, many of the trainee teachers lack in terms of subject knowledge, which they teach in the schools and adopt faulty methods of teaching.

The teacher training departments in most of the universities are also running in isolation that is they remain cut off from the main university as their schedule is totally different and for some unknown reasons in the metro cities like Delhi. the school teaching has become the exclusively reserved field for the females as the number of male teachers is reducing day by day, the condition of teachers of private schools is also not so good both in terms of salary and the working conditions.

Research and development in the field of teacher training or teacher education all over India has been directionless, unorganised and there is no uniformity in the researches, so that concrete suggestions can be generated from these researches, most of the researches focus for the local level problems, or regional level problems only, and ignore the research for all India teacher education.

As far as the statistics is concerned the overlapping boundaries create the kind of a confusion as in some states elementary education and secondary education are counted twice in elementary education also in secondary education also, which creates a kind of a confusion in terms of the number of schools.

In 1947 there were only 650 training schools with 38770 students. Also 42 secondary training colleges with 3100 trainee teachers. there is long list of various commission reports but nothing concrete has come out. Some of these worth mentioning here are Kothari commission, national policy of education 1986, acharya ram murti report, national curriculum framework 2005 and the new educational policy 2020.

The constitutional and legal provisions: the right of children to free and compulsory education act 2009 (R.T.E) emphasises the right of a child between the age group of 5-14 years of age, for compulsory education.

The national curriculum framework 2005 (N.C.F.) made several recommendations on all the concerned aspects of education in India

Justice Verma commission report (J.V.C) 2014 reviewed the whole paraphernalia of teacher education in India and made several recommendations for both the pre-service teacher training and the in-service teacher training in India.

There are around 10,000 or more teacher training institutes/colleges in India providing training to the trainee teachers in different states of India, preparing teachers for teaching at different levels of school education, unfortunately, there is no uniformity in the curriculum /syllabus of these teacher training institutes. The irony is that our country ,has time and again claimed to regain the status of “Vishwa guru” that is the country which leads the world ,and we are still struggling to develop a universally ,applicable comprehensive teacher training curriculum/syllabus for our institutes and colleges, and till now all the initiatives and researches have proved to be looking for a needle in a haystack, in other words we have not been able to provide a useful ,well-knit framework for our teacher training institutes ,which together can be applied in the whole country ,without further deviations and distortions, and satisfies, the needs and requirements of all the regions and groups ,for a period of minimum ten years or more ,and can become the foundation for our future teacher training programmes.

The new education policy 2020, has brought sweeping changes in the field of teacher education as it proposes internship for the teachers to visit the various sections of the society.

Secondly, the program known as Nishtha outlines the training for the teachers, to learn the various ways and methods to teach the disabled children in the regular schools.

students in the schools will be provided opportunities to innovate through the Atal innovation centres, and the skill India, programs these skilled students will be provided all sorts of information to avail the Mudra loans, and join the start-up India, program to become the job creator and not the jobseeker, the whole idea behind this is to change the very attitude of the young generation to do something for the society, and the country, instead of running for the government job only, this will initiate a new work culture in India and the young generation will understand the dignity of labour, and the gap between white collar and blue collar jobs, will automatically be finished. the merger of various courses from the school level to the university level is the milestone and the issue of credit scores to students dropping out of the schools or colleges will enable them re-join the studies again as and when they want.

The professional development of the teachers across levels can be ensured with focussed in service training, on different aspects of teaching as well as the problems in the schools and colleges on a case study basis must be taken up so that the hurdles can be removed with the help of the administration, and other agencies.

The performance-based incentives can also be helpful in improving the teaching learning practices and will help in creating congenial atmosphere, as there is long term stagnation of the teachers on same post, or in same grade, which frustrates the teachers.

The teachers should have regular interaction with the teachers of other institutes, states, regions in the whole country, to share their experiences, with each other, whether online, or offline, in other words, a network must be established to provide a platform to teachers, to discuss their ideas and problems.

CONCLUSION

The condition of teacher education all over India presents a picture of fragmented approach, by various governments, as there is no uniformity in teacher training institutes, in terms of the selection criteria of the trainee teachers, the content to be taught to the training teachers, and also the qualification say the minimum eligibility conditions, and the aptitude towards this profession is just done by various states according to their own parameters. the PPP model of education which incorporates private agencies or corporate houses in the field of education,h as although raised the infrastructural facilities, but the teachers remined insecure about their jobs, and the government has no control on the day today activities of these private institutes, specially the content which is being taught in the institutes, these private institutes for the sake

of profits affiliate substandard institutes in the remote areas with them which later on becomes problem for the government also, and aspiring teachers also. many of the private institutes are issuing fraud diplomas and degrees in the name of teacher training which need to be curtailed immediately, so that the common people are not cheated again and again.

SUGGESTIONS

Teacher education in India has been ignored since independence no concrete policy has been formed to bring uniformity at the All-India level, therefore immediate steps should be taken to form such an All-India level policy.

Separate cadre must be formed to implement and administer the policies of the government as has been discussed and debated earlier, also the Indian educational services like the Indian judicial services, should be formed which should have specialised educators and technocrats looking into the various aspects of teacher training and school, and college education also.

The provision of lateral entry, should also be made for qualified and experienced teachers and researchers, to be elevated to the I.E.S. levels and other key posts, related with the educational administration.

An all-India level task force has to be formed to coordinate with the states in terms of formulating the policy of teacher training and its implementation and administration also. And all teacher training institutes in the country must be connected with each other at the zonal as well as national level.

The vertical mobility of the teachers has to be ensured in terms of their academic and professional progress ,at a regular interval of time ,specially in terms of routine promotions ,a mechanism must be there to promote the teachers automatically, as it has been observed for example, a nursery teacher ,retires as nursery teacher only, even if she has the necessary qualification to teach at the primary level, as there is no provision for promoting nursery teachers to primary level, which certainly creates frustration among the deserving teachers.

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THE DETERMINANTS OF ECONOMIC GROWTH IN INDIA: THE ARDL BOUNDS TEST APPROACH

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ABSTRACT

The Indian economy has emerged as one of the fastest growing economies of the world.

There are various factors, both economic and non-economic, which affect the process of economic growth. This paper is an attempt to analyse the major determinants of economic growth, namely, capital, labour force, government expenditure, net FDI inflows and trade volume, for the Indian economy in the post-reform period, i.e., 1991-2019. Using the Autoregressive Distributed Lag (ARDL) bound cointegration technique, it is found that all variables have a positive impact on GDP, except for trade volume. Also, GDP is quite responsive to capital formation, but the percentage impact of FDI inflows on GDP is quite low. Thus, India needs to focus on accelerating the rate of capital formation. At the same time, such government policies which provide a conducive environment for boosting investment and generating employment (with skill development), will significantly contribute to economic growth of the country. Moreover, greater emphasis has to be placed on export promotion and import substitution, so that the export earnings can further reinforce the growth process.

Keywords: Economic Growth, Capital Formation, Labour Force, Government Expenditure, India, Trade Volume, FDI Inflows, ARDL model

1. INTRODUCTION

Indian economy has been showing significant process in economic growth. The growth activity has started accelerating after the pandemic. Owing to different reforms undertaken by the government, like GST, skill development programs, focus on Ease of Doing business, provision of infrastructural facilities, rationalization in banking regulations, etc., had a positive impact on the economic activity. However, there is still a long road to go as fiscal consolidation, reduction in public debt, a robust financial system, an accommodative monetary policy and greater focus on green growth initiatives can pave the way for a more inclusive and sustainable growth.

There have been significant changes in the economy since the liberalization, privatization and globalization (LPG) reforms were introduced since 1991. The government has also come up with various poverty eradication and employment generation schemes to improve the standard of living of the people. As it is well known, India has witnessed a service-led growth, with the share of agricultural sector in India's GDP continuously falling and that of service sector increasing. There are regional differences in economic growth, with some states growing faster as compared to other states. The age structure of India's population is such that it gives the advantage of demographic dividend to the economy. Growing population and urbanization have always posed a challenge to the economy, and there has been increasing pressure on the natural resources and infrastructural facilities.

An analysis of the past performance of the Indian economy reveals that since 1991, there have been wide fluctuations in the per capita real GDP growth rate between 1 per cent to 8 per cent, the lowest being 1.15 per cent in 2002 as evident from Figure 1.

Figure 1: Per capita real GDP growth rate

As far as the average decadal per capita real GDP growth rates are concerned, Table 1 shows that from 2001-2010 and 2011-2019, the Indian economy performed in same quantitative terms, and better as compared to the period 1991-2000. For the overall time period, i.e., 1991-2019, the average growth rate was approximately 5 per cent.

Table 1: Decadal Per capita real GDP growth rate (in %)

1991-2000	4.3
2001-2010	5.5
2011-2019	5.5

Source: Authors' calculations

The process of economic growth is affected by a variety of factors, both economic and non-economic. There are various studies, both theoretical and empirical, which focus on the determinants of economic growth. The rate of capital formation, labour force growth, government spending, foreign investment, exports and imports, are some of the key factors affecting the growth process. Different economists have outlined the various factors affecting the growth process. Harrod (1939) emphasized on capital accumulation, whereas later theories talked about growth in labour force, technological progress, performance of external sector, role of government policies, and various other non-economic factors (like educational and health attainment).

The present study is an attempt to analyse the determinants of economic growth for the Indian economy in the post-reform period, using the Autoregressive Distributed Lag (ARDL) bound cointegration technique. Based on the existing literature, the determinants selected are: gross fixed capital formation, labour force, government final consumption expenditure, foreign direct investment net inflows and trade volume (exports + imports). These are some of the key economic factors which substantially affect the GDP growth of the country.

The remaining paper is divided into five sections. Section 2 comprises of selected review of literature based on time series data. The data and methodology used has been discussed in Section 3. Section 4 comprises of data analysis and the results obtained. Conclusion has been given in the last section.

2. SELECTED LITERATURE REVIEW

Kharusi & Ada (2018) investigated the relationship between government's external borrowing and economic growth in Oman for the period 1990-2015, employing the Autoregressive Distributed Lag cointegration approach. It was found that there is a significant and negative influence of external debt on economic growth in Oman. In addition, gross fixed capital was found to be positively significant in determining growth performance. Thus, it can be inferred that external debt fund should be used for more productive purposes to improve the growth rate.

Ali & Saif (2017) assessed the causality between economic growth, foreign direct investment, agriculture rate, energy consumption and trade openness for Pakistan from 1976 to 2015. The econometric techniques like ADF unit root test, Johansen and Johansen & Juselius maximum likelihood estimation approach, VECM, impulse response function, variance decomposition and granger causality were used for the analysis. The study concluded that GDP is affected by agriculture growth rate, energy consumption, trade liberalization and FDI. Also, in short run, trade openness, agriculture growth and energy consumption have positive impact on economic growth, but FDI has negative impact on GDP.

Chizonde (2016) has analysed the growth process in Zambia on the basis of factors of government spending and taxes, inflation, exchange rate, employment and physical capital stock, for the period 1961 to 2015. In addition to these factors, copper prices and crude oil prices have been included as external factors and agricultural sector contribution to GDP as a control variable. The study is based on the Bounds test approach to Cointegration. It has been concluded that government spending, exchange rate, inflation and level of agricultural development are the main determinants of economic growth in Zambia. Copper prices have affected economic growth fluctuations in the short-run only. As a result, there is a need to shift the focus from international copper prices to planned economic policies. For attaining higher sustainable growth, the emphasis should be on increased agricultural development, public investment and devaluation of currency. The effects of external shock resulting from copper price fluctuations can be managed through sound fiscal and monetary policies.

Das et al. (2015) developed a macro-model of five sectors- output(real), prices, monetary, government and external; to analyze the inter-sectoral linkages and policy transmission channels using a set of structural equations for India. The time period was 1980-81 to 2012-13 and method of ordinary least squares was used. It was found that monetary policy instruments affect the real economy. Exchange rate had a direct impact on prices and indirectly affected the net exports and real GDP.

Ismalia & Imoughele (2015) examined the relationship between economic growth (real GDP) and macroeconomic variables like gross fixed capital formation, labour force, Foreign Direct Investment, ratio of export and import to gross domestic product (for trade openness), inflationary rate and government expenditure for Nigeria. The time period of the study was 1986-2012 and econometric techniques of Augmented Dickey-Fuller (ADF) test and Johansen's co-integration test were used. The main determinants of economic growth were found to be gross fixed capital formation, foreign direct investment and government expenditure. The analysis shed light on the policy implications that tight monetary and fiscal policies need to be used since inflation had a negative influence on growth. At the same time, infrastructure for lowering the cost of doing business and stringent policies to minimize labor strike are required to tap the growth potential of the economy.

Jain, et al. (2015) used the technique of multiple regression analysis to examine the effect of variables like FDI, net FII equity, net FII debt, import and export on the components of GDP, namely manufacturing, industry and services for the time period 2000-2001 to 2011-2012 for India. It was found in the study that there was a significant effect of FDI, Net FII equity and import on GDP components. But net FII did not have a significant impact on the components. In addition, there was no effect of export on manufacturing and industry but on services, there was a significant effect.

Biswas & Saha (2014) analyzed both the short run and long run determinants of growth of India, for the time period 1980-81 to 2010-11. They used techniques of Johansen and Juselius multivariate co-integration test and the Vector Error Correction (VEC) model. It was found that in the long run, factors like employment, capital formation, export, FDI and money supply have

a positive impact on the country's growth whereas inflation and fiscal deficit negatively impact the growth process. In the short run, the GDP growth rate was majorly influenced by capital formation.

Divya & Devi (2014) studied the effect of macroeconomic variables like inflation, exchange rate, foreign exchange reserves, FII's, Sensex, balance of payments and current fiscal deficit on the GDP of India. The time period selected for the study was from 1997-2014 and the methods of correlation and ANOVA were used. It was revealed that exchange rate, Sensex and Balance of Payments are the significant predictors of GDP. Thus, appropriate policy measures regarding value of rupee, fluctuations in Sensex and adverse BoP situation need to be framed.

Ghosh (2014) explored the dependence of Indian GDP growth rate on macroeconomic variables like Current Account Balance, interest rate, gold reserves, government spending and the exchange rate of currency. He used the techniques of Principal Component Analysis and multiple regression analysis for 2000 to 2014. Out of all the variables, interest rate turned out to be the most important variable affecting GDP growth.

Rahman & Salahuddin (2010) assessed the impact of determinants of economic growth with special focus on stock market development in Pakistan for the period from 1971 to 2006. For the empirical analysis, the methods of Auto Regressive Distributed Lag (ARDL) bounds-testing for the long run relationship and Error Correction Model (ECM) for the short run dynamics were used. The study concluded that both in short run and long run, there is a positive relationship between efficient stock markets and economic growth. There were negative effects of financial instability and inflation whereas human capital, foreign direct investment and stock market liquidity have positive effect on economic growth.

Daga, et al. (2004) examined the trend in Indian GDP before and after the economic reforms, and also attempted to formulate a forecast model. It was found that GDP is a stationary process and economic reforms did not lead to a sufficient boost to GDP. The important factors in the model which significantly contributed to GDP were trade, transport, storage and communication while financing, insurance, real estate and business services did not have a significant impact.

Iqbal & Zahid (1998) have examined the impact of major macroeconomic variables on Pakistan's economic growth using a multiple regression model for the period 1959-60 to 1996-97. The study concluded that primary education, increasing the stock of physical capital and openness of the economy are major factors for accelerating growth. At the same time, the budget deficit and external debt are negatively related to both output growth variables. Thus, the government should focus on providing primary education, provision of adequate physical capital, lowering the budget deficit and rely on domestic resources to finance economic growth.

It can be seen that a variety of studies have been conducted to analyze the determinants of economic growth for India and other countries. But the present study is an attempt to examine the major economic factors affecting the real GDP of India in the post reform period using the Autoregressive Distributed Lag (ARDL) Bounds test cointegration technique.

3. DATA AND METHODOLOGY

For examining the dependence of GDP on various factors, the technique of regression analysis is used, and the following model is deployed:

$$RGDP_t = \beta_0 + \beta_1 CF_t + \beta_2 LAB_t + \beta_3 GE_t + \beta_4 FDI_t + \beta_5 TR_t + \mu_t$$

Where,

RGDP is Real Gross Domestic Product is the dependent variable and the independent variables are: CF denoting gross fixed capital formation; LAB representing no. of persons engaged (in

millions), i.e., labour force; GE denoting government final consumption expenditure; FDI representing Foreign Direct Investment net inflows; TR is trade volume (Exports + Imports).

Also, β_0 is the intercept and μ_t is the stochastic disturbance term.

Since it is desirable to take the variables in log form (natural logarithm), the above model is modified as:

$$LGDP_t = \beta_0 + \beta_1 LCF_t + \beta_2 LLAB_t + \beta_3 LGE_t + \beta_4 LFDI_t + \beta_5 LTR_t + \mu_t$$

The above equation is an equation for a log-linear regression model, where both the dependent and independent variables are in logarithmic form.

Since we are dealing with time series data, in order to estimate the long run relationship among the variables, the Autoregressive Distributed Lag (ARDL) cointegration technique or bound test of cointegration (Pesaran and Shin 1999 and Pesaran et al. 2001) has been used. This technique can be applied when variables are integrated of different order, I(0), I(1) or combination of the both and also when there is a single long run relationship between the variables for a small sample size, and it is based on the OLS method. Most of the variables in economic analysis are integrated of order 0 or 1. The ARDL model includes lagged values of both the independent as well as the dependent variables as the regressors in the model. It is based on a single reduced form equation to estimate the long run relationship between the variables. Moreover, this approach also allows for the use of different lags for different variables. This technique uses the Wald test, which is based on the F-statistic. The log run relationship is said to exist if the calculated value of F-statistic exceeds the critical value band. But this technique is not applicable when the variables are integrated of order 2.

For examining the relationship between India's real GDP and its determinants, an ARDL model of the order $(p, q_1, q_2, q_3, q_4, q_5)$ has to be estimated, where, p is the number of lags for log of real GDP and $q_1, q_2, q_3, q_4, \text{ and } q_5$ are the number of lags for log of capital formation, log of labor force, log of government expenditure, log of FDI inflows and log of trade volume, respectively.

To test the existence of a long run relationship between GDP and its determinants, the following long-run form or the conditional error correction regression is used:

$$\begin{aligned} \Delta LGDP_t = & \alpha_0 + \lambda_1 LGDP_{t-1} + \lambda_2 LCF_{t-1} + \lambda_3 LLAB_{t-1} + \lambda_4 LGE_{t-1} + \lambda_5 LFDI_{t-1} + \lambda_6 LTR_{t-1} \\ & + \sum_{i=1}^{p-1} \gamma_i \Delta LGDP_{t-i} + \sum_{j=0}^{q_1-1} \beta_{1j} \Delta LCF_{t-j} + \sum_{j=0}^{q_2-1} \beta_{2j} \Delta LLAB_{t-j} \\ & + \sum_{j=0}^{q_3-1} \beta_{3j} \Delta LGE_{t-j} + \sum_{j=0}^{q_4-1} \beta_{4j} \Delta LFDI_{t-j} + \sum_{j=0}^{q_5-1} \beta_{5j} \Delta LTR_{t-j} + e_t \end{aligned}$$

Here, the λ 's are the long run multipliers. The null hypothesis is the absence of long run relationship, i.e., no cointegration or

$$H_0: \lambda_1 = \lambda_2 = \lambda_3 = \lambda_4 = \lambda_5 = \lambda_6 = 0$$

The null hypothesis is rejected if the value of F-statistic obtained is more than the upper bound critical value. If the value of F-statistic is less than the lower bound value, null hypothesis is not rejected. However, if the value of F-statistic lies between the critical value band, the test becomes inconclusive.

After cointegration is established, the next step is to estimate the Error Correction Model (ECM), which combines the short-run adjustments along with the long-run equilibrium. The

short-run coefficients are provided by the error correction form of the estimated ARDL model, which, in the present case, is defined as:

$$\Delta LGDP_t = \alpha_0 + \sum_{i=1}^{p-1} \gamma_i \Delta LGPD_{t-i} + \sum_{j=0}^{q_1-1} \beta_{1j} \Delta LCF_{t-j} + \sum_{j=0}^{q_2-1} \beta_{2j} \Delta LLAB_{t-j} + \sum_{j=0}^{q_3-1} \beta_{3j} \Delta LGE_{t-j} + \sum_{j=0}^{q_4-1} \beta_{4j} \Delta LFDI_{t-j} + \sum_{j=0}^{q_5-1} \beta_{5j} \Delta LTR_{t-j} + \delta ECM_{t-1} + \varepsilon_t$$

The term ECM_{t-1} is the lagged value of the residual term obtained from the cointegrating equation and its coefficient δ gives the speed of adjustment.

4. DATA ANALYSIS AND RESULTS

4.1 Descriptive statistics, trend and growth rates of selected variables

Table 2 shows some of the key descriptive statistics for the selected variables.

Table 2: Descriptive Statistics of Selected Variables

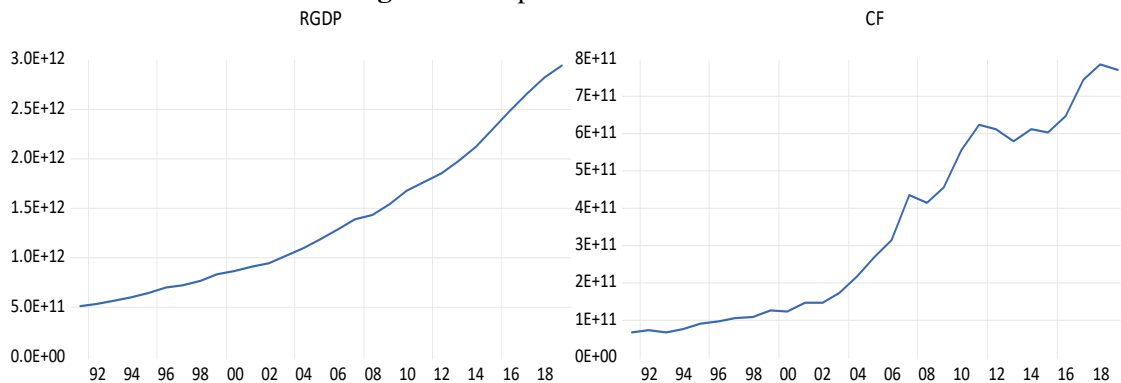
	RGDP	CF	LAB	GE	FDI	TR
Mean	1.39E+12	3.46E+11	437.7422	1.25E+01	1.87E+10	4.89E+11
Median	1.19E+12	2.69E+11	457.6381	18.50E+10	7.27E+09	3.45E+11
Maximum	2.94E+12	7.86E+11	497.6157	3.45E+11	5.06E+10	1.18E+12
Minimum	5.13E+11	6.61E+10	354.106	2.99E+10	73537638	4.59E+10
Std. Dev.	7.40E+11	2.55E+11	44.67958	9.31E+10	1.77E+10	4.18E+11
Skewness	0.673251	0.359443	-0.42955	0.787348	0.392038	0.363896
Kurtosis	2.267463	1.555099	1.743608	2.442403	1.518105	1.461126
Jarque-Bera	2.839196	3.14715	2.799179	3.37195	3.396371	3.501527
Probability	0.241811	0.207303	0.246698	0.185264	0.183015	0.173641
Sum	4.02E+13	1.00E+13	12694.52	3.62E+12	5.41E+11	1.42E+13
Sum Sq. Dev.	1.53E+25	1.81E+24	55895.4	2.43E+23	8.78E+21	4.89E+24

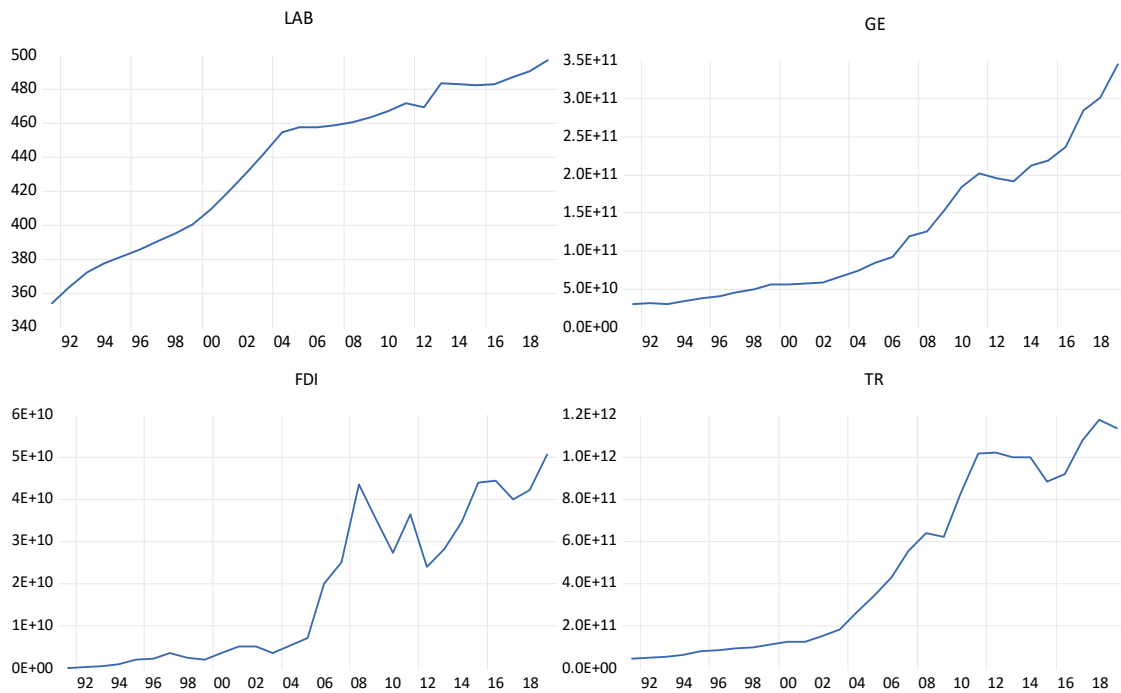
Source: Authors' calculations

From Table 2, it can be observed that all variables are moderately positively skewed, except labour force. Also, all variables have a positive coefficient of kurtosis. According to the Jarque-Bera test for normality, all the variables are normally distributed.

Figure 2 displays the trend of the selected variables.

Figure 2: Graphs of selected variables





It can be seen that all variables have an upward trend, but there have been some fluctuations in the levels of FDI and trade volume since 2008.

Table 3 gives an insight into the decadal growth rates of the variables.

Table 3: Average Annual Growth Rates (in %) of variables

VARIABLE	1991-2000	2001-2010	2011-2019	1991-2019
Real Gross Domestic Product	5.9	6.5	6.2	6.2
Gross Fixed Capital Formation	6.7	15.2	3.6	8.8
Labour Force	1.6	1.3	0.7	1.2
Government Final Consumption Expenditure	7.0	11.9	7.0	8.7
Foreign Direct Investment net inflows	43.2	20.3	6.8	23.3
Trade Volume	11.2	18.8	3.5	11.5

Source: Authors' calculations

It can be seen that FDI net inflows have recorded tremendous growth after the reforms. During 2001-2019, the economy performed quiter well as compared to the other two decades, since all variables recorded the highest growth rate during this period.

4.2 Correlation Matrix

To examine the degree of association among different variables, the correlation matrix is used, as shown in Table 4.

Table 4: Correlation matrix for variables

	RGDP	CF	LAB	GE	FDI	TR
RGDP	1	0.97289	0.89827	0.98887	0.92299	0.95455
CF	0.97289	1	0.90821	0.9785	0.94262	0.99377
LAB	0.89827	0.90821	1	0.86329	0.86248	0.89569
GE	0.98887	0.9785	0.86329	1	0.92281	0.96432
FDI	0.92299	0.94262	0.86248	0.92281	1	0.92746
TR	0.95455	0.99377	0.89569	0.96432	0.92746	1

Source: Authors' calculations

From Table 4, it is clearly evident there is strong positive correlation among all the variable under study. One of the reasons for this high positive correlation is that different economic variables keep affecting one another, and mostly share the same common trend. Moreover, the dependent variable, real GDP is strongly positively correlated with all other independent factors, the correlation coefficient being approximately 0.9 in all cases.

4.3 Unit Root Tests

Though the ARDL technique does not require necessary testing for the stationarity, it is appropriate to check for the order of integration of the variables since this method breaks down in the presence of I(2) time series. For checking stationarity or the order of integration of variables, the Augmented Dickey Fuller (ADF) test, Phillips-Perron (PP) test and KPSS test have been used, the results of which are presented in the tables 5 and 6.

Table 5: Values of test statistic for Stationarity tests at level

Variable	ADF test		PP test		KPSS test	
	Intercept	Intercept & trend	Intercept	Intercept & trend	Intercept	Intercept & trend
LGDP	0.589	-2.522	1.721	-2.401	0.694	0.162*
LCF	-0.802	-1.084	-0.796	-1.356	0.671*	0.105
LLAB	-2.998*	-1.090	-2.737	-1.253	0.667*	0.170*
LGE	0.493*	-2.123*	0.455*	-2.303*	0.685*	0.092
LFDI	-3.888*	-3.731*	-3.888*	-3.637*	0.671*	0.152
LTR	-1.234	-0.973	-1.264	-0.842	0.667*	0.114

Note: * indicates the test statistic is significant at 5% level of significance

Source: Authors' calculations

From Table 5, it can be seen that as per the ADF test and PP test, all variables are nonstationary at level except log of government expenditure and FDI inflows. However, the KPSS test concludes that all variables are stationary at level either in the intercept form, or intercept and trend form, or both.

Table 6: Values of test statistic for Stationarity tests at first difference

Variable	ADF test		PP test		KPSS test	
	Intercept	Intercept & trend	Intercept	Intercept & trend	Intercept	Intercept & trend
LGDP	-4.477*	-4.379*	-4.516*	-4.389*	0.246	0.357*
LCF	-4.824*	-4.791*	-4.823*	-4.787*	0.177	0.142
LLAB	-3.448	-3.783*	-3.434*	-3.820*	0.390	0.072
LGE	-4.534*	-4.508*	-4.520*	-4.500*	0.130	0.082
LFDI	-4.629*	-4.721*	-4.666*	-4.721*	0.384	0.109
LTR	-3.130*	-3.284	-3.078*	-3.249	0.225	0.127

Note: * indicates the test statistic is significant at 5% level of significance

Source: Authors' calculations

From Table 6, it can be seen that as per the ADF test and PP test, all variables are stationary at first difference. However, the KPSS test concludes that all variables are nonstationary at first difference.

Table 7 concludes the results of the stationarity tests.

Table 7: Results of stationarity tests

Variable	ADF test	PP test	KPSS test
LGDP	Stationary at first difference	Stationary at first difference	Stationary at level
LCF	Stationary at first difference	Stationary at first difference	Stationary at level
LLAB	Stationary at first difference	Stationary at first difference	Stationary at level
LGE	Stationary at level	Stationary at level	Stationary at level
LFDI	Stationary at level	Stationary at level	Stationary at level
LTR	Stationary at first difference	Stationary at first difference	Stationary at level

Source: Authors' calculations

From Table 7, the nature of variables as regards their stationarity and order of integration has been summarized in Table 8.

Table 8: Order of integration of the variables

Variable	Order of integration
Log of Real Gross Domestic Product	1
Log of Gross Fixed Capital Formation	1
Log of Labour force	1
Log of Government Final Consumption Expenditure	0
Log of Foreign Direct Investment net inflows	0
Log of Trade Volume	1

Source: Authors' calculations

From Table 8, it is clear that since the variables are both I(0) and I(1), it would be appropriate to use the ARDL model.

4.4 Lag Length Selection

Before estimating the ARDL model, the appropriate number of lags for the variables have to be determined. For this purpose, the Akaike Information Criterion (AIC) is preferred since it provides more robust results as compared to Schwarz Criterion (SC) and Hannan-Quin (HQ) information criterion. From the table IX, based on the results of Final Prediction Error (FPE), Akaike Information Criterion (AIC), and Hannan-Quin (HQ) information criterion, lag length of 3 has been selected.

Table 9: VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	123.7035	NA	4.71E-12	-9.05411	-8.76378	-8.97051
1	322.5402	90.6075*	1.86E-17	-21.58	-19.54770*	-20.9948
2	368.782	46.24182	1.41E-17	-22.3678	-18.5936	-21.281
3	438.71	37.65356	6.28e-18*	-24.97769*	-19.4614	-23.38921*

* indicates lag order selected by the criterion

Source: Authors' calculations

4.5 ARDL Estimation

On estimating the ARDL model of the order (3,1,2,3,2,3), which is chosen on the basis of the Akaike Information Criteria, the results obtained are given in Table 10.

Table 10: ARDL Model estimation results

Dependent variable: LGDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	1.032251	0.144675	7.134973	0.0004
LGDP(-2)	-0.401338	0.209510	-1.915602	0.1039
LGDP(-3)	0.690324	0.181492	3.803597	0.0089
LCF	-0.085438	0.078102	-1.093926	0.3159

LCF(-1)	-0.452101	0.095502	-4.733958	0.0032
LLAB	-0.575865	0.300037	-1.919310	0.1034
LLAB(-1)	-0.271944	0.314130	-0.865706	0.4199
LLAB(-2)	0.608459	0.296533	2.051912	0.0860
LGE	-0.118389	0.057106	-2.073154	0.0835
LGE(-1)	0.169711	0.066772	2.541636	0.0440
LGE(-2)	-0.035066	0.048681	-0.720325	0.4984
LGE(-3)	-0.149615	0.054883	-2.726046	0.0344
LFDI	-0.016496	0.008429	-1.957005	0.0981
LFDI(-1)	0.028064	0.013101	2.142184	0.0759
LFDI(-2)	-0.014563	0.008703	-1.673297	0.1453
LTR	0.189397	0.076598	2.472607	0.0483
LTR(-1)	0.139323	0.037294	3.735818	0.0097
LTR(-2)	0.002274	0.033333	0.068212	0.9478
LTR(-3)	0.055101	0.023329	2.361976	0.0561
C	-0.016895	0.555684	-0.030404	0.9767

Source: Authors' calculations

From Table 10, it can be seen that, some of the coefficients of different independent variables, in different lags are significant, as evident from their p values.

Some of the key statistics related to the above model are given in Table 11:

Table 11: Model Statistics

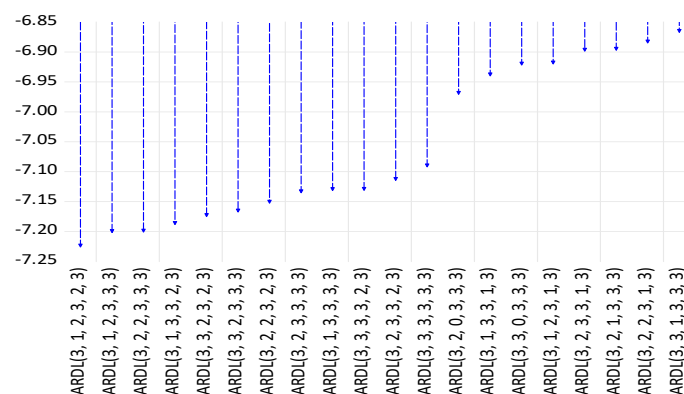
R-squared	0.99996	Mean dependent var	27.91332
Adjusted R-squared	0.999834	S.D. dependent var	0.488867
S.E. of regression	0.006304	Akaike info criterion	-7.223233
Sum squared resid	0.000238	Schwarz criterion	-6.255466
Log likelihood	113.902	Hannan-Quinn criter.	-6.944551
F-statistic	7913.32	Durbin-Watson stat	2.526571
Prob(F-statistic)	0		

Source: Authors' calculations

It can be seen from Table 11 that the value of coefficient of determination is high, and the F statistic is also significant, the overall significance of model is good enough.

In order to examine how the above selected model is preferred over the other models, the criteria graph is obtained. Based on the Akaike Information criteria, the least value is for the model ARDL (3,1,2,3,2,3), thus it is the most suitable model, as depicted in the Figure 3.

Figure 3: Criteria Graph
Akaike Information Criteria (top 20 models)



4.6 Bounds Test

To test the existence of long-run relationship between India and its determinants, the Bounds test is performed, results of which are shown in Table 12.

Table 12: Bounds Test results

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	16.83383	10%	2.08	3
k	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

Source: Authors' calculations

The F statistic obtained (16.83) is much greater than all the upper bound significant values, at all levels of significance. Thus, the null hypothesis is rejected. It can be stated that there does exist a long-run relationship between GDP and its determinants.

4.7 Cointegration Equation and Long-run Form

Since the Bounds test confirms the presence of a long run relationship, the cointegration equation for the long run relationship between GDP and its determinants, as defined by the above ARDL estimation is:

$$\text{LGDP} = 0.0526 + 1.6733\text{LCF} + 0.7451\text{LLAB} + 0.4151\text{LGE} + 0.0093\text{LFDI} - 1.2019\text{LTR}$$

The coefficients in the above equation show the long-run impact of a change in the independent variables. Also, since the variables are in log form, these coefficients can be interpreted as the long run elasticity coefficients. The following interpretations can be made from the above equation:

Effect of Capital Formation on Real GDP:

The elasticity of GDP with respect to capital formation is high. Real GDP is highly responsive to capital formation. Holding other factors constant, a one percent rise in capital formation will lead to 1.67 per cent rise in real GDP.

Effect of Labour Force on Real GDP:

Real GDP is positively related to labour force. A one percent increase in labour force leads to 0.7% increase in real GDP, holding other factors constant.

Effect of Government Expenditure on Real GDP:

It can be seen that government expenditure positively impacts real GDP. If government expenditure increases by 1%, then it leads to 0.4% increase in GDP, other factors remaining constant.

Effect of FDI Inflows on Real GDP:

FDI net inflows also have a positive impact on real GDP. However, the percentage impact of FDI inflows on real GDP is quite low.

Effect of Trade Volume on Real GDP:

Trade volume is the only factor which has a negative impact on real GDP. Keeping other factors constant, a 1% rise in trade volume will lead to a decrease in real GDP by 1.2%. Since trade volume includes both exports and imports, the volume of imports has a negative effect on real GDP.

The statistical significance of the above estimated coefficients is carried out using the t ratios of the coefficients and their p-values. These values are shown in the Table 13.

Table 13: Statistical Significance of the Long-run form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LCF	1.673339	0.599713	2.790234	0.0316
LLAB	0.745087	0.533324	1.397063	0.2119
LGE	0.415141	0.199883	2.076927	0.0831
LFDI	0.009323	0.041220	0.226189	0.8286
LTR	-1.201899	0.295512	-4.067176	0.0066
C	0.052594	1.730973	0.030384	0.9767

Source: Authors' calculations

It can be also observed from Table 13 that the long run coefficients of capital formation and trade volume are also statistically significant at 5 per cent level. The coefficient of trade volume is highly significant. This clearly brings out the importance of capital formation in GDP growth of India, and the detrimental impact of imports on the economy. Moreover, the coefficient of government expenditure is significant at 10 per cent level.

4.8 Error Correction Mechanism

For the short-run relationship, i.e., the error correction model, the results obtained are given in Table 14.

Table 14: Results for Error Correction Model

Dependent variable: D(LGDP)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDP(-1))	-0.288986	0.098380	-2.937443	0.0260
D(LGDP(-2))	-0.690324	0.093589	-7.376120	0.0003
D(LCF)	-0.085438	0.023480	-3.638767	0.0109
D(LLAB)	-0.575865	0.123036	-4.680471	0.0034
D(LLAB(-1))	-0.608459	0.128212	-4.745721	0.0032
D(LGE)	-0.118389	0.022832	-5.185141	0.0020
D(LGE(-1))	0.184681	0.024591	7.510074	0.0003
D(LGE(-2))	0.149615	0.025895	5.777789	0.0012
D(LFDI)	-0.016496	0.003321	-4.966535	0.0025
D(LFDI(-1))	0.014563	0.003714	3.921095	0.0078
D(LTR)	0.189397	0.024843	7.623682	0.0003
D(LTR(-1))	-0.057375	0.013448	-4.266323	0.0053
D(LTR(-2))	-0.055101	0.012334	-4.467374	0.0042
CointEq(-1)	0.321238	0.020925	15.35166	0.0000

Source: Authors' calculations

The error correction term, or the speed of adjustment parameter or feedback effect, is positive and statistically significant. This indicates a divergence from equilibrium, or instability from long-run equilibrium. Also, its value indicates that 32 per cent of the adjustment takes place each year. Also, the coefficients of all the variables are statistically significant in the short run.

Table 15 shows the model statistics for the above Error Correction Mechanism.

Table 15: Model Statistics for ECM

R-squared	0.963195	Mean dependent var	0.063319
Adjusted R-squared	0.923322	S.D. dependent var	0.016097
S.E. of regression	0.004457	Akaike info criterion	-7.684771
Sum squared resid	0.000238	Schwarz criterion	-7.007335
Log likelihood	113.9020	Hannan-Quinn criter.	-7.489694
Durbin-Watson stat	2.526571		

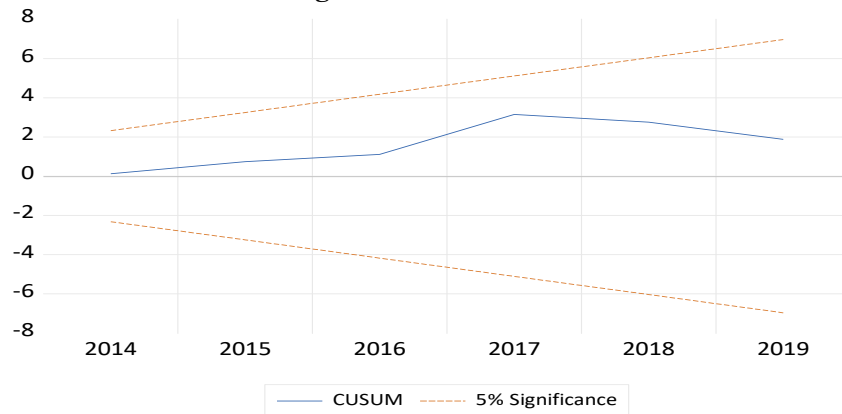
Source: Authors' calculations

According to the R^2 value, the overall fit of the model is good.

4.9 Stability of Estimated Model

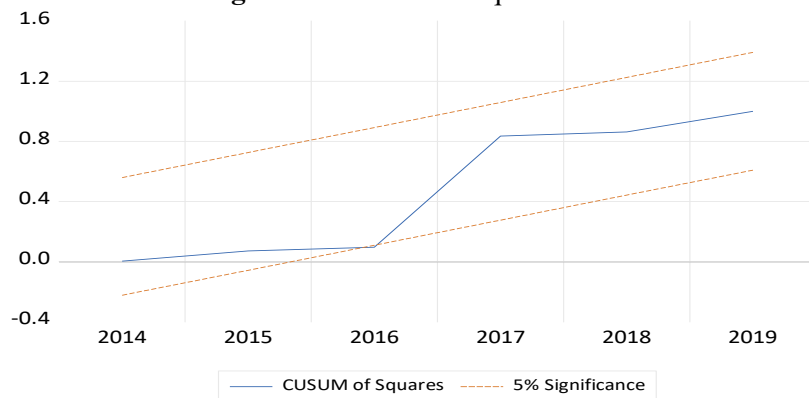
For further testing the stability of the model, the CUSUM test is performed.

Figure 4: CUSUM Test



The model is stable since it lies within the 5% significance boundaries during the sample period.

Figure 5: CUSUM of Squares Test



On performing the CUSUM squares test, the stability of the model is established, since it lies almost within the 5 per cent significance boundaries.

It can be concluded Figures 4 and 5 that both the CUSUM Test and CUSUM of Squares Tests suggest stability of the coefficients of the short run and long run coefficients of the estimated ARDL model.

4.10 Residual Diagnostic Tests

In order to determine the robustness of the model, some standard diagnostic tests are conducted on the residuals. The results of these tests are presented in the Table 16.

Table 16: Results of Diagnostic tests on residuals

Test	Test statistic	p value	Conclusion
Jarque-Bera Test for Normality	JB = 0.888	0.641	Residuals are normally distributed
Breusch-Godfrey LM test for Serial Correlation	F = 2.382	0.208	No serial correlation in residuals
Breusch-Pagan-Godfrey Test for Heteroscedasticity	F = 1.237	0.429	No heteroscedasticity in residuals

Source: Authors' calculations

From Table 16, it is clear that the residuals of the estimated ARDL model are normally distributed, and are free from the problems of serial correlation and heteroscedasticity.

From the results of stability tests and residual diagnostic tests, it is clear that the estimated ARDL model is appropriate for analytical purposes.

5. CONCLUSION

The Indian economy has shown significant progress in the post-reform period, with the average per capita growth rate being around 5 per cent. To examine the relationship between India's real GDP and its determinants, namely capital formation, labour force, government expenditure, FDI inflows and trade volume, the ARDL model is used. The stationarity of the variables is determined using the ADF, PP and KPSS tests. Since the variables are both $I(0)$ and $I(1)$, ARDL model is appropriate for the analysis. The results of Bounds test indicate that there is a long run relationship between real GDP and its above-mentioned determinants. The stability of the model parameters and its robustness is further established using various standard tests. Except trade volume, all other factors have a positive impact on India's real GDP. As regards the responsiveness of real GDP to its determinants, in terms of elasticity, is quite responsive to capital formation, but the percentage impact of FDI inflows on GDP is quite low. Thus, India needs to focus on accelerating the rate of capital formation. At the same time, such government policies which provide a conducive environment for boosting investment and generating employment (with skill development), will significantly contribute to economic growth of the country. Moreover, greater emphasis has to be placed on export promotion and import substitution, so that the export earnings can further reinforce the growth process.

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THE ECONOMIC CRISIS OF INDIA: UKRAINE-RUSSIA WAR

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ABSTRACT

The Russia-Ukraine War has created a wide disequilibrium in global trade. Many countries are facing the drastic consequences of this ugly war. It is not only leading to global warming but is also resulting in a huge number of deaths worldwide, injury, sexual violence, global hunger, depression and other physical and emotional traumas. This war has taken the lives of many innocent lives

India is also facing the wrath of the war. Being a developing country, India is heavily dependent on international trade. The economy is badly suffering in edible oil (especially import in the sunflower oil) and crude oil. Thus, oil forms one of the biggest components of import items. This paper tries to focus on the stand of the Indian Economy in this imbalanced situation and tries to find out some ways where the economy can find a way to overcome the problems.

Keywords: Russia, Ukraine, Indian Economy, Global Economy

INTRODUCTION

The Russia-Ukraine war which started on Feb 24th has accelerated over the past few months. The world can face its stress- let that be economically or geographically. Countries face the aftereffect in various ways. Global growth slows down significantly which results in a long time recovery and a high inflation rate. Also, the resources and the infrastructures are adversely affected. Things like the lack of food commodities, life-saving drugs, normal drinking water and dying hunger and family losses only add up to the already existing challenging problem to bring the world's economy to its normal pace.

India is also one such economy which is facing the brunt of the war. The normal consumer can feel the rising inflation rate as inflation is now creating a big hole in the pockets of the end users.

The imbalance between imports and export is widening the disequilibrium of the Balance of the Payment of the Economy.

With the war still going on, the import of necessities is low like sunflower oil. Other important manufacturing products like the pharmaceutical industry or the automobile manufacturing sector are facing a negative graph. The bilateral ties with both countries have a huge currency exchange worth.

The India-Ukraine bilateral trade For FY 22, till now it is \$2.3 billion - which includes \$372 million in exports and about \$2 billion in imports. Whereas, India-Ukraine bilateral trade in FY21 is about \$2.5 billion.

India-Russia bilateral trade

For FY 22, till now it is \$9.4 billion which includes \$2.55 billion in exports and \$6.9 billion in imports. Whereas, Indo-Russian bilateral trade in FY21 is \$8.1 billion.

Thus, it is clear from the above figures that India is heavily dependent on these two countries for oil and wheat and semi-precious stones. It also imports fertilizers, mineral oil, and nuclear reactors to name a few.

OBJECTIVES OF THE STUDY

- 1) To identify the factors responsible for creating an impact on the Indian economy.
- 2) To study the situation resulting from the Russia-Ukraine War.
- 3) To study the rise in oil prices.
- 4) To study the food disequilibrium due to war
- 5) To find ways helpful for India to overcome the pressure of the war.

RESEARCH METHODOLOGY

This study is based on secondary data such as the articles published by RBI and other related articles.

ANALYSIS OF THE PAPER

India is going through many unpredictable phases related to oil, food items and foreign investment. Though India's response to Russia's invasion has been distinctive, New Delhi has adopted a neutral stand and has abstained itself from the successive votes in General Assembly, UN Council and other such international forums. Though India is maintaining its friendly stand it cannot ignore the impact of the war which is creating a very adverse impact on the Indian Economy.

IMPACT ON OIL

India's trade with Russia is approximately 1.3% of its total trade which is nearly \$10 million. India is the 3rd largest consumer of oil, the U.S. and China being the first and second respectively. It imports 2% of its oil needs and nearly \$1 billion of coal per year from Russia.

The prices of diesel and petrol are increasing at a rapid speed. Fuel and power have 13% weightage in the wholesale price index resulting in cascading effect in the rise of the price index in the economy.

IMF has also projected a slowdown of the economy from 7.2% to 6.6% mainly due to the hike in oil prices.

IMPACT ON FOOD PRODUCT

The world is experiencing the wrath of war between two major world leaders in various agricultural goods like oilseeds, wheat and other Agri-commodities like fertilizers. Russia and Ukraine contribute around 25% supply of the world's wheat requirements. With this ongoing war, the world is looking toward India for filling up the gap between demand and supply. It is predicted that India will be able to fill the gap in the wheat market by supplying 10-12 million metric tonnes this year.

Also, there is a huge scope for Indian exporters, especially in nuts, confectionaries, fruits and pulses. This war is also creating a big market for select Indian agricultural export such as maize, millet and processed food. As the price of these commodities is reaching new heights, it is opening new markets for such products in the global market.

IMPACT ON FOREIGN INVESTMENT

The ongoing war has affected the flow of foreign investment in India. In March and April, India witnessed the outflow of foreign institutional investors due to the fluctuations in the global market and insecurities in the economy due to the uncertainties spreading at the onset of war. This is leading to severe implications for the Balance of Payment.

In this volatile condition, India is trying to balance its import deficiency- let that be in food, oil, fertilizers, and coal which are being imported from Ukraine and Russia. In such a situation, the outflows from FII will create economical pressure on the already-trying-to-stand-on-its-feet India.

INDIA FIGHTS IN THIS CRISIS SITUATION

- **Agricultural Products**

There are some silver linings amidst such a depressing and uncertain situation. The wheat and rice market requirements have increased globally. Though the wheat will be supplied by Ukraine and Russia, it is quite difficult to predict its quality due to the soil damage done in the war. The other competitive market i.e., Australian wheat will be ready by November. This gives ample time for the Indian wheat exporters to encash the global market requirements.

There are other agricultural products such as oats, millets, sugar, onion, fish and sea foods and other cattle products to supply to Ukraine and other required countries.

- **Discounted Oil Price**

India is looking out for lower price oil market to fulfil its crude oil requirement as it is the most expensive import item. Due to its huge demand and requirement, India imports 80% of crude oil. The country imported 193.5 million tonnes of crude oil during this financial year.

The country has struck a deal with Russia at a discounted rate. Russia is ready to sell the oil to India for \$35 to \$45 per barrel as per a Bloomberg report. Russia expects India to place an order of 15 million barrels in the first lot of the deal.

In a big move, Russia has offered rupee-ruble-denominated payments as Russia has been banned from SWIFT as per Bloomberg Report.

- **Indian Airlines Get a Tailwind**

With the ongoing war, domestic airlines remain unaffected by international restrictions.

In a price-sensitive country like India, high airfares could prove highly detrimental to the already precarious airline and travel & hospitality sector.

With fuel accounting for anywhere between 25 and 45% of total operating costs for airlines in India, it looks difficult for the sector to escape unharmed from the evolving situation.

- **Tech Jobs Expected to Shift to India**

With the Russia-Ukraine faceoff turning volatile, IT companies have triggered business continuity plans in India.

As per the experts, the current scenario could lead to more off-shoring jobs in India. Recently Tech Mahindra and Wipro have expanded their business to Ukraine. This war can help India to generate more employment opportunities as many countries are now turning towards India as its employment base and boost growth in India.

Peter Bendor-Samuel, CEO of IT advisory Everest Group, said, “the war in Ukraine is going to cause the demand shift of production and labour in India as no one can absorb such a big shift on short notice”.

- **Indian Railway**

For the first ever, the Indian Railways has invited tender from the private sectors to set up a state-of-art wheels manufacturing plant for semi-high-speed trains as the current requirement is 80000. India saw an opportunity in this requirement and now within its manufacturing on its roll, it plans to export this product worldwide.

CONCLUSION

The War of Ukraine Russia has been going on for some time now. There has been a major cause of concern for India regarding the rise in oil prices and the defence sector. This conflict has forced India's hand while formulating policy. The rise in defence spending with the rising price of crude oil has an impact on the Indian economy. But as every dark cloud has a silver lining, amidst all these uncertainties of the Ukraine-Russia war, India can find opportunities to stabilize itself and help the world to grow towards betterment.

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THE IMPACTING FACTORS OF DIGITALIZATION ON HR, SCOPE FOR DIGITAL SKILLS AND RETENTION

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ABSTRACT

The Digitalization of HR has revolutionized the entire process of its operation across the globe. There is a notion that digitization substitutes human. Humans cannot be replaced through digitization. The customized technological support towards the HR sector is paving a way for both existing and future organization to switch over to a new or updated technical knowhow to achieve the targets of the organizations. The primary purpose of this paper is, to sift meticulously the impacting factors in digitalization on the human resource, which manifests digital skills to be collaborated with human resource, to appertain and accomplish its purpose. Incorporating digital HR will allow the organizations to accelerate to cloud hosted HR applications and platforms. The technology can intervene to improve the employee's way of work, improve the employee's productivity and satisfaction by retention.

Keywords: Digitalization of HRM, Innovation, Knowledge transfer, Autonomy, Teamwork and Retention.

I – INTRODUCTION

The Digital Revolution (also known as the Third Industrial Revolution) is the shift from mechanical and analogue electronic technology to digital electronics which began in the later half of the 20th century, with the adoption and proliferation of digital computers and digital-record keeping that continues to the present day. Implementation of the HR technology is one of the biggest factors positively affecting the human resource management in any organization.

“Digitalization is the usages of digital technologies that are digital, which helps in changing a business model, provide new revenue and value producing opportunities; it is the process of moving towards digital business, as given in Gartner IT Glossary”. It is evident that there will be a change in the tools that is adapted to carry out the work of HR in digitalization. Digitalization can be elucidated as the technological blending along with the data and automating the same either fully or partially for the paramount purpose. The technological phenomena have certainly contributed in transforming HRM by providing the digital tools. It is apparent that, the digitalization brings digital knowledge which is new to the HR, changing the method of work with the help of ICT tools.

Implementing the digital technology needs to fill the skill gap by training, to ensure the use of new tools in removing the common hurdle of, lack of willingness and preparedness to adopt the new technologies.

There is a need of transformation among the employees with the way they function, by adapting and developing into new digital skills that contributes to the welfare of both the employees as well as the organization to endure in the digital generation.

II – LITERATURE REVIEW

The apt version to elucidate the meaning of digitalization can be incorporated from Henning Kagermann. ‘According to Kagermann (2015) digitalization may be defined as’ “the networking of people and things and the convergence of the real and virtual worlds that are enabled ICT”. Digital transformation is process of changing the culture of work with technology by winning the hearts and minds of the human resource. Increase in the use of Information and communication tools (ICT) has given plenty of opportunity in all the organizations to seek and to find wealth and welfare.

To implement the digital transformation, the organization must be transparent and be clear with the process and its effects in convincing, and gaining the trust and confidence of the employees. Sophisticated digital technology with its customised structure and ramification has succoured all the departments of every organization in which HRM is also included. The incorporation and the application of digital technology in human resource are to bring the transformation in HR proficiency and to conquer all the impediments. Embracing to digital HR reduces the strenuous manual work as the technology is connected with the information which can be self operated. The guidelines of human resource can be well catered and administered by digitalizing the human resource management.

There is a need of change in the functions of human resource professionals as the digitalization requires proficiency with the digital skills which would result in enabling the capability of the employees to be successful in the digital age. The organizations will be redesigned, renewed, and made better in its performance by digitally transformed human resource management. The use of information and communication technologies helps in maximising the digital competence of the human resource, resulting in increased output.

Further, digitalized human resource management not only influences the organization with its better output but it also turn out to be a beneficial factor to the human resource, in self governance and composure in the chain of commands leading to contentment in job.

OBJECTIVES OF THE STUDY

The Study Has Been Undertaken to Achieve the Following Objectives:

- (i) To explore the traits of digitalization on influencing the human resource.
- (ii) To grasp the exigency of digital skills
- (iii) To accentuate the benefits of digitalization on human resource

There are various factors in digitalization. But, the foremost factors without which the digitalization cannot operate are discussed below.

The Factors Influencing Digitalization of Human Resource

The Technology

One of the important attributes of technology is to explore new possibilities. The core functions of human resource, such as, recruiting, training, and development, was done in the traditional way before the impact of technology in human resource management. The major drawback in the traditional human resource management was its limited domain and agility. The information and communication tools greatly impacted employees and the management in a numerous way.

Digitalization puts an end to the traditional way of human resource function. Technology has not replaced the human resource, rather replaced the traditional method of work. So, "Technology is "a means to fulfill a human purpose".(Brian, 2009). The combination of technological application for the process of gathering, storing, disseminating, resulted in Information Communication Technology, brought a radical change in the HR.

The ICT tools like, computers, laptops, software programs, printers, scanners, etc., and its adoption with the human resource, assures the efficiency of HR because of its ubiquity, accessibility, re-productivity etc. The information and communication tools help in well organizing the organizational information. The use of internet in the organization has greatly impacted in the organizational information being passed on multiple stages without any hurdle leading to a productive teamwork. There is an instantaneous and collaborative communication in the work place with use of social media. Systematic and innovative atmosphere is created by the application of technology in human resource, resulting in, doing things faster with precision, improving productivity and performance. Technology improves its internal processes, core

competencies, and performance in the organization. Training and development program for employees with the sophisticated technology is the key factor for the success of an employee and the performance of an organization. On the other hand, research has proved “IT tools in the HR not only help to hire the best potentials, but also retain it”. The companies use the IT HR tools containing all the HR processes, which are coupled with “Recruit to Retire” function within the company. The branding of the company is important in retaining the employees which is the proven result of technological tools in the HR; subsequently leading to low recruitment and on boarding cost and sustains high productivity. There is professional development, efficiency among employees and the improved retention rate with digital technology.

Technology Can Influence the HR Management in Three Ways

- a. **The Digital Employees-** Is an inception of technological tools in the organization to create new ideas, distribute the ideas, and to come up as a digitally skilled human resource in an institution.
- b. **Digital Workplace-** It is a customized atmosphere in accomplishing the tasks with the help of information and communication technology crossing all the geographical boundaries but digitally connected with multiple work stations.
- c. **Digital Governance-** It is an effective, efficient manifestation in the management of digitally skilled human resource in solving the problem in an innovative way.

The Innovation

“Digital HR is built on innovations and experimentation”. Innovation is an improved product or process, whose technological characteristics are significantly different from before is an extended concept of, the technological concept of innovation. The blend of creativity and competence connected with the information and communication technology is the source of institutional progress. Innovation means the implementation of new technological ideas, methods, to better meet the ever revolving requirements of the organization and its workforce. Creating new ideas are made possible by incorporating the prevailing technology into an organization impacting the lives of human resource and the management of the organization. Innovation in the HR, manifest to, identify solutions quickly and flexibly. Digitally driven human resources, use technology in creating new ideas for the development of the institution. The creative ideas are rooted to the digital technology and it is dynamic in nature. Digital technologies have the potential to boost innovation in enhancing services. An innovative idea, with the help of technology, empowers the organization in making complaisant and quick resolution. Flexibility and autonomy are the significant contribution from technological innovation in the field of digital HR. “Innovation also may encourage retention”. To sum up, advancement of digital technology, supplements the innovations and impacts HR positively paving a way for success in retaining its employees. It is often necessary for organizations to adapt and overcome challenges of change with innovation.

The Knowledge Transfer

The knowledge transfer can be explained in simple terms as, sharing or disseminating of knowledge by providing the inputs, thereby solving the problems. The digital technologies have seasoned and simplified in acquisition of knowledge. Knowledge sharing is increased with the help of information and communication tools to accomplish the digital tasks. The steady advancement in the technology, demands a continuous training or knowledge transfer in accomplishing the day today tasks at the work place. The technological development is an important activity in innovation, which include acquiring knowledge to train the employees to promote and retain with competitive skills and making a career path for the employees. Knowledge transfer makes the HR more independent with their enhanced skills and abilities. The more knowledgeable employees are in the organization, more the competitive that the

organization would be. The knowledge sharing has been made simple with the help of information and communication tools reaching the various virtual work places in resolving issue of physical work place. Digitalization impacts the entire organization with creative ideas, by sharing the knowledge within the organization enabling the human resource and the human resource management to be digitally skilled. Knowledge transfer is incredibly effective to gain deeper visibility into performance, approaching the shift as a means which revolutionize the process that helps the team in fulfilling the work even from the remote workplace.

The Autonomy

The digitalization transforms the jobs in accordance to the convenience of the employees, giving them the state of equilibrium to accomplish the assigned tasks even from remote location. This factor of digitalization has shown better effectiveness and outputs in different stages of the organization. With the impact of digitalization there are various transformation in the organization with relate to the quality of work being carried out, the level of output, and the accomplishment of the organization. Furthermore, digitalization also resulted in employee gratification, self governance and purpose driven work at in the organizational structure. Integrating of creative ideas in alliance with the information and communication technology in the institution and motivating the human resource in utilizing the information and communication tools has given liberty to accomplish the task even from remote area, according to their convenient time. Autonomy at workplace, the employees are less stressed and learning of work is eased. Flexibility to work, form wherever is most convenient, has shown better accomplishment, effectiveness, and directly linked to job satisfaction. Autonomy allows workers to carryout innovative tasks in the work place. Digitalization gives the freedom in the network to be creative, to work from any location. Worker autonomy, work life balance is the effect of digitalization. Autonomy encourages, to be independent at work in a virtual team with innovative ideas from technology and knowledge sharing.

The Teamwork

Technology has infiltrated even the HR in the form of virtual teams. An organization can function beyond the geographical boundaries; and regular working hours independently being virtually connected. The main domain of human resource management is to hire, select, train, reward, participate and unifying the employees to achieve the common goal of the organization. The advancement of technological tools in the recent years, connected individuals to work under one network, forming, virtual teams in accomplishing the tasks even from the different geographical locations. Remote work and virtual work would not have been made possible without the digital collaboration. The technological evolution has transformed the way the wok is carried out from individuals to teams; these teams are connected virtually, creating digital net work of individuals in the digital world working as digital team. The team has the access to information, interaction, communication and improved productivity with the help of digital technology. In this digital era, the human resource by adapting the technology have become digitally skilled human resource to work innovatively, sharing the knowledge, having autonomy and working as a team. Working as team, being digitally connected gives the employees the sense of freedom and satisfaction. Employees are constantly being encouraged to work in teams as they are virtually connected leading to increase in HR productivity and efficiency, improved quality and skills.

CONCLUSION

It is crystal clear that, the digitalization is carrying innumerable hallmarks of benefits which impacts the employees and to the organization to a very positive path in digital enlightenment. The long term dreams and visions are camouflaged in digital tools, which add value, brings credentials to individuals, and goodwill to the organization. The organizational support in motivating the existing employees with its blueprint is the need of the hour to pursuit in mastering factors of digitalization benefiting and befitting in HR and HRM.

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THE LINK BETWEEN BRAND CO-CREATION AND BRAND LOVE: THE MEDIATING ROLE OF BRAND TRUST

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ABSTRACT

The purpose of this study is to explore the impact of brand co-creation on brand love. In addition, this paper also aims to examine the mediating effect of brand trust on this relationship for skincare brands. Data was collected from 184 respondents and analyzed using structural equation modeling. PROCESS MACRO was used to estimate the mediating effect. Findings revealed that brand co-creation results in enhanced brand trust which further leads to brand love resulting in long-lasting consumer-brand relationships. The study also highlights the importance of a positive co-creation experience for a brand to sustain itself. Digitalization has opened platforms for consumers to share the brand's content and interact with the brand. Therefore, marketers should aim to strengthen brand trust to engender brand love which can provide a competitive advantage. The findings will also help academia and marketers understand the importance of consumer engagement in new product development and innovation process to co-create a superior value proposition.

Keywords: brand co-creation; brand trust; brand love; skincare

INTRODUCTION

The Indian market for skincare brands has grown rapidly over the past few years. Skincare products account for 37 percent of the cosmetic industry (Sanny et al., 2020). Nowadays, consumers prefer products that are personalized and customized. They wish to have complete control over what they want, how to get it, and when they want it. In an attempt to gauge the dynamics between brands and consumers Prahalad and Ramaswamy (2000), introduced the concept of co-creation. Since skincare products are in great demand, brands continue to develop innovative products in order to meet consumers' needs (Piriyakul, 2022). Brands that seek innovation engage with consumers to create new products and services (Iglesias, 2013). In order to reap benefits from the brand, consumers acquire information about it. The service-dominant logic emphasizes the importance of customer involvement in the value-creation process. Thus, in order to maximize the impact of customer involvement in business processes, marketers are increasingly utilizing principles of service-dominant logic (Vargo & Lusch, 2016).

The current study considers love as a consequence of brand co-creation. Hence, brand love is observed as a dependent variable for brand co-creation. Further, we propose to inspect brand trust as a mediator of the relationship between brand co-creation and brand love.

The majority of research on co-creation focused on the service sector. Therefore, the study contributes to the existing literature by advancing the understanding of brand co-creation for skincare brands and adds to the limited knowledge base of brand love.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

BRAND CO-CREATION AND BRAND TRUST

Co-creation, a collaborative process (Oriol, 2020) aims to develop a relationship of trust with their customers. Customers can interact much more directly with brands in the new digital and connected environment (Ramaswamy & Ozcan, 2016). Embracing co-creation can lead to competitive advantage, better insights, and risk reduction through collaborative customer-brand

interactions (Kazadi et al., 2016; Hatch & Schultz, 2010). Moreover, it is possible for customers to develop a warm and deep relationship with the brand and the community of co-creators.

Brands thus provide value to their customers by engaging them in the innovation process. A co-creation process involves inviting customers to provide feedback on existing brand offerings and to contribute their ideas and knowledge to the development of new products (Fuller et al., 2008). Various scholars have suggested that interpersonal interactions during the creation of new products build trust among participants. Customer trust is further enhanced by positive brand-customer interaction (Iglesias et al., 2013; Massey & Kyriazis, 2007). Therefore, we hypothesize that;

H1: brand co-creation will have positive effect on brand trust

BRAND TRUST AND BRAND LOVE

Brand love has emerged as a significant consumer brand relationship construct. It consists of passion, attachment, and positive emotions toward the brand (Carroll & Ahuvia, 2006). A brand's relationship with its customers is influenced by the feelings and emotions of its customers (Batra et al., 2012). According to (Albert & Merunka, 2013) brand trust is a determinant of brand love. Customers who love a particular brand tend to form and develop an emotional connection with it. Kumar et al. 2013, considered consumers' trust in the brand as an important element for a long-lasting relationship with the brand. Moreover, trust influences customers' behavior towards the brand. Also, trust is empirically associated with love (Larzelere & Huston, 1980; Sarkar & Sarkar, 2016) and is a determinant of brand love (Drennan et al., 2015). Therefore we propose that;

H2: brand trust will have positive effect on brand love

BRAND CO-CREATION AND BRAND LOVE

In the new marketing approaches where the role of consumers is shifting from passive users to co-creators, a relationship develops over time and love is the result of the process (Langer et al., 2016). The relationship between a brand and a consumer can be as strong, enduring, and powerful as love when the brand represents values that match the consumer's belief system and enhances the consumer's self-image (Hans et al., 2016). As a result of the brand's self-expression, there is brand love (France et al., 2015).

Furthermore, when consumers identify with a brand they develop positive feelings about it (Harrison-Walker, 2001). According to Ahuvia (1993), consumers must see the brand as a part of themselves to love it. Therefore, incorporating consumers' ideas into product design increases consumers' love for it (Deng et al., 2021). Thus, we hypothesize that;

H3: brand co-creation will have positive effect on brand love

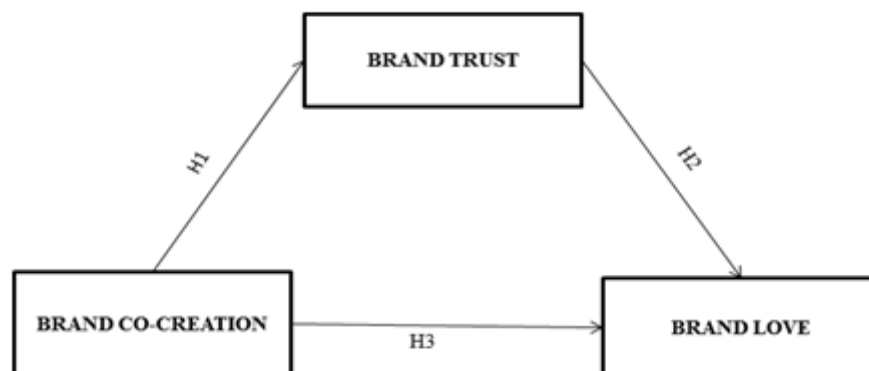


Figure 1: Research Model

RESEARCH METHODOLOGY

The current study examines the relationship between brand co-creation and brand love with brand trust as the mediator (Figure 1). A quantitative approach was used to verify the conceptual model. A survey was conducted with Indian consumers who used skincare brands. A questionnaire was drafted based on identified scales adapted from the previous study with minor revisions to fit our research objective. The Scale of brand co-creation was adapted from Nysveen and Pedersen (2014), the mediating variable brand trust was adapted from Chaudhuri and Holbrook (2001), and the dependent variable brand love was adapted from Carroll and Ahuvia (2006). There were a total of 210 respondents; however, the final sample was composed of 184 usable responses as 26 participants were not familiar with any skincare brand. There were 74% females and 26% males, and most of the respondents were aged between 20-29 years (62%). Also, most of the respondents were graduates (Table 1).

Table 1: Descriptive Statistics	
Descriptive Statistics	%
Gender	
Male	26
Female	74
Age Group	
20-29	62
30-39	26
40-49	12
Education	
High school or less	12
Graduate	43
Post-Graduate	34
Doctorate	6
Other	5

ANALYSIS AND RESULTS

For the examination of collected data, validated tools and procedures were employed. An exploratory factor analysis was performed in SPSS, followed by a CFA to confirm the findings. To test the mediation impact of brand trust on the relationship between brand co-creation and brand love, we used process macro (Hayes Model 4). Cronbach's alpha was used to measure the variable's internal consistency (Cronbach, 1951). The obtained values are more than the acceptable limit of 0.7 (Nunnally, 1978). Overall, the value for the reliability coefficient was observed as 0.893. We used Herman's single factor to determine biasness. Kaiser Meyer Olkin (KMO) is used for examining data's appropriateness, which is 0.838. Hence, meets the cut-off criteria of 0.60 (Kaiser & Rice, 1974). Bartlett's test of sphericity value is calculated as 0.000, which is less than 0.05; hence, the given factors are considered as zero correlated. Under factor analysis; principal component analysis, and varimax rotation in SPSS 26.0 indicated that three factors explained approximately 66% of the variance. Data exhibit adequate convergent validity as composite reliability (CR) and average variance explained (AVE) were above acceptable limits. AVE was also more than the acceptable limit of 0.5. Additionally, all the AVE values exceed the maximum shared variance (MSV) and diagonal values (square root of average variance explained) exceed non-diagonal values (correlation between constructs) confirming the discriminant validity (Table 2). Also, model fit indices met necessary requirement ($\chi^2/df=2.112$, GFI= 0.983, NFI= 0.927, CFI= 0.960, RMSEA= 0.078) (Table 4)

Table 2: Validity and Reliability

Constructs	Mean	SD	α	CR	AVE	MSV	BCC	BT	BL
BCC	3.33	0.681	0.878	0.881	0.599	0.31	0.774		
BT	3.89	0.586	0.877	0.877	0.642	0.231	0.313	0.801	
BL	3.93	0.627	0.909	0.913	0.724	0.31	0.557	0.48	0.851

HYPOTHESES TESTING

Hypotheses H1 to H3 are evaluated with the help of a simple mediation model (Model 4) in SPSS 26. The results indicated that all hypotheses were found to be significant (Table 3). Brand co-creation has a positive and significant effect on brand trust ($\beta=0.301$, LLCI=0.7832 & ULCI=0.4189), brand trust has a positive and significant impact on brand love ($\beta=0.383$, LLCI=0.2623 ULCI=0.5045), and brand co-creation also show a direct and positive impact on brand love ($\beta=0.441$, LLCI=0.3366 & ULCI=0.5450).

Table 5 summarizes the result of the indirect effect of brand co-creation on brand love through brand trust. The indirect effect (0.1154) is significant because the confidence interval is above zero (0.0526-0.186). The findings support the mediation effect of brand trust. Thus, shows that brand co-creation will result in enhanced brand trust, which in turn is associated with a higher level of brand love for skincare products.

Table 3: Result of hypotheses testing

No.	Relationships	Path estimates	t-statistics	Outcome
H1	BCC→BT	0.301	5.0415	Supported
H2	BT→BL	0.383	6.2456	Supported
H3	BCC→BL	0.441	8.3494	Supported

Table 4: Model fit indices

Model Fit	Cut off	Model Statistics
CMIN		120.41
df		57
CMIN/df	≥ 4.00	2.112
GFI	≥ 0.900	0.983
NFI	≥ 0.900	0.927
IFI	≥ 0.900	0.96
CFI	≥ 0.909	0.96
RMR	≤ 0.100	0.0539
RMSEA	≤ 0.80	0.078
ECVI	Smaller the better	1.172

CONCLUSIONS AND IMPLICATIONS

The purpose of the study is to investigate the mediating impact of brand trust on the relationship between brand co-creation and brand love for the skincare product category. This study concludes that brand co-creation has a significant and positive impact on brand love. Furthermore, the direct impact of brand co-creation on brand love in the presence of the mediator was also found significant. Hence, brand trust partially mediates the relationship between co-creation and brand love which indicates the importance of trust in building long term relationship with customers. Additionally, it can be a powerful tool for brand sustainability. Brands must invest in co-creation experiences that keep customers engaged and enhance brand love. The findings of this study will also help the marketers to understand the importance of positive and enriching co-creation experience in establishing long lasting relationship with their customers.

Table 5: Indirect effect				
indirect effects				
Indirect effect	Effect	BootSE	BootLLCI	BootULCI
BCC → BT → BL	0.1154	0.341	0.0526	0.186
Total effect	0.5563	0.0544	0.449	0.6636
Direct effect	0.4408	0.528	0.3366	0.545

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Despite the rigor and relevance there exist some limitations in the present study. Data were collected for only the skincare sector therefore in the future, researchers can include products from different categories as it may provide a different outcome. The study findings should be replicated in different cultural contexts to confirm and improve generalizability. The consequences of brand co-creation can be further analyzed by researchers for a more comprehensive picture. The study suggested that brand co-creation leads to brand love but it is also possible that a negative co-creation experience may result in brand hate and negative word-of-mouth. Longitudinal studies with larger sample size should be conducted in the future for a more comprehensive picture.

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THE RELEVANCE OF ACADEMIC SUPERVISION OF TEACHERS IN SCHOOLS

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ABSTRACT

“AS IS THE KING, SO ARE THE SUBJECTS” a famous proverb depicts the influence of an administrator to the followers. The aim of this article is to understand the relevance of an eagle eye approach of an administrator on the teachers in schools with the main focus on ability of supervisors, purpose of academic supervision, and the policies or the rules for the implementation of academic supervision of teachers in schools. It has been noticed that most of the time academic supervision of the teachers is performed by the head teacher or the supervisor but sometimes these are not effectively administrated due to (i) work load of other administrative tasks (ii) lack of understanding about importance, concept and the outcomes of academic supervision (iii) lack of effective policy of state and central government. This article will throw the light on its broad spectrum and therefore, contributes to better learning culture in schools, intrinsic motivation among the teachers and can bring change in the academic supervision styles too. Academicians and policy makers should keep in mind about the importance of academic supervision while framing the parameters.

Keywords: Academic supervision, Administrator, Teacher, Policy makers

INTRODUCTION

Education is fundamental right for achieving ultimate goal of life, developing an equitable, impartial society, and promoting national development. Universal high-quality education is the best way forward for developing and maximizing our country's rich talents and resources for the betterment of the individual, the society, the country, and the world. In the development of any country education plays a vital role. Education imparts awareness, which has the ability to transform a learner's life and provide him a broad prospective to explore the world from various dimensions. . The most suitable, specialized and formal agency set up by the society for imparting education to the rising generations is school. In this web of educational system teaching acquire a paramount place .Without teacher the circle of education cannot be completed. Changing time has added new dimensions to this profession, which requires specified competencies and right attitude towards their responsibilities with ethical behavior .No doubt favourable attitude ,competencies are necessary for maintaining the professional standards among teachers but to fulfill the changing demands of educational system like new policies ,rules and regulations ,needs of learner, stakeholders etc a right kind of academic guidance ,directions and supervision is needed for teachers too.

WHAT IS ACADEMIC SUPERVISION

Academic supervision is one of several activities carried out to ensure the quality of a teaching process. It is an activity which is conducted to monitor the teachers' performance in the teaching learning process, starting from planning the lesson, teaching, and evaluating the implementation. Academic supervision is carried out by a principal or a supervisor within the school area on a regular basis. To strengthen teachers various proficiencies, Academic Supervision is an adequate motivational and multi-dimensional tool which acts as a catalyst to improve teacher effectiveness, accountability and his organizational behaviour etc. Adepoju (1998) defines Academic supervision as the process of bringing about improvement in instruction by working with teachers who are working with pupils.

DEFINITIONS

Hay, Jay, and Clements (2011) explain that academic supervision is an activity conducted by teachers to ensure the learning quality.

Bernard & Goodyear in Moyer (2011) defines supervision as a continuous evaluative intervention carried out by the senior members of a profession to the junior members of the same professions, improving the professional capabilities of the juniors, to monitor the services provided, and to select those who will take the profession.

Meanwhile, Supardi (2013) defines supervision as the service to help, encourage, assist, and guide the teachers to increase their ability and skills in performing the tasks.

Ambarita (2014) and Behlol (2011) mention that the basic function of supervision is to help teachers develop their ability to manage the teaching process.

(Leniwati & Arafat, 2017) Supervision activities in education are necessary to improve the learning process and the learning outcomes.

(Zulfikar, 2017; Suwartini, 2017; Akhmad et al., 2014) Academic supervision is the teachers' ability to manage the classroom as a whole such as planning, implementing, and evaluating the students' learning outcome.

IMPORTANCE OF ACADEMIC SUPERVISION

Academic Supervision provides equal importance to students and teachers by having constant interaction between the supervisor and the teacher to improve teaching and learning processes (Al-Saud, 2007). Teachers' continuous learning assists them to be more accountable and effective. Academic supervision is one way of evaluating teacher performance through a systematic planning cycle, and careful observation. Through supervision it is expected that teachers will provide feedback with the improvement of the quality of performance.

Issue of orders and Instructions: Academic Supervision has multi faceted qualities. Primarily it is used to issue an orders and instructions giving feedback for the improvement of the teaching learning process.

- **Facilitates Control:** It is also helpful tool to maintain the control in the organization. It facilitate head to use all type of controlling power.
- **Maintain Discipline:** Academic Supervision helps maintain discipline in an institution. It regulates activities in the school as well as teachers working on different posts.
- **Provides Feedback:** Academic Supervision facilitates the teachers to improve their teaching skills with the feedbacks provided by the head of the institutions and other higher authorities.
- **Improve Communication:** Academic Supervision helps to minimize the gap between the authorities and the teachers through the communication they can interact with each other and solve many problems without delay.
- **Provides Motivation:** Rewards and appreciation is the main tool to motivate the teachers among the institutions. On the basis of assessment of Academic Supervision it can evaluate the performance of the teachers and gave recognition to him or her according to his or her abilities.
- **Maintains Group Unity:** It helps to maintain the unity among the institution with the valuable suggestion and the feedback. One can communicate the problem with each other and find the solution immediately. This helps to promote group unity.

FACTORS AFFECTING ACADEMIC SUPERVISION

- **Technical and Managerial Knowledge.** Competency and ability of supervisor affects supervision in the organization.
- **Leadership Skill.** Supervisor is a operating manager who academically supervise and uses his/her leadership skills and different methods to keep a check on teachers.
- **Effective Communication.** This is the one of the main tool of academic supervision with his/her conversation with the teacher, a supervisor can diplomatically explore the drawbacks and shortcomings of the teachers and motivate them to resolve that.
- **Impartiality.** Dominating tool of academic supervision is being impartial. Irrespective of any caste, religion, favoritism, a supervisor can effectively conduct supervision on the teachers, because this impartiality build trust among the teachers.
- **Clear Instruction.** Instructions should be legible, clear and easily understandable to each and everyone. It should be properly communicated among all the teachers weather in written form or verbal form.
- **Proper Working Condition.** Working conditions in any institution should be comfortable and moderate. All the basic facilities should be properly maintained to enhance the efficiency of the teachers.
- **Human Relation Skills.** Relation among colleagues should be impartial, diplomatic and ethical.

TECHNIQUES OF SUPERVISION

In general, there have been three supervision techniques applied in education supervision are, directive, non-directive, and collaborative . **A directive approach** is a direct approach to a problem. Supervisors or school principals provide direct supervision by explaining, presenting, directing, giving examples and strengthening. This direct supervision can be individual, such as class visits, class observations, private conversations, interventions, selecting various sources used for teaching and seeing the processes and results of the evaluation. The supervisor also can apply this technique in groups through teacher meetings, teacher group studies, and workshops.. **A non-directive approach** does not directly show problems, but the teacher tells stories about the problems they experience. The supervisor or principal concludes the teacher's problem then provides guidance and directs. Meanwhile, **a collaborative approach** is taken between the supervisor and the teacher together to determine the structure, process, and criteria for the learning implementation.

DIMENSIONS OF SUPERVISORY PRACTICES

According to EDWARD PAJAK (1990) there are twelve dimensions of supervisory practice;

- **Community Relations** - Establishing and maintaining open and productive relations between the school and its community;
- **Staff Development** - Developing and facilitating meaningful opportunities for professional growth;
- **Planning and Change** - Initiating and implementing collaboratively developed strategies for continuous improvement.
- **Communication** - Ensuring open and clear communication among individuals and groups throughout the organization.
- **Curriculum** - Coordinating and integrating the process of curriculum development and implementation.

- **Instructional Program** - Supporting and coordinating efforts to improve the instructional program;
- **Service to Teachers** - Providing materials, resources, and assistance to support teaching and learning;
- **Observing and Conferencing** - Providing feedback to teachers based on supervision
- **Problem Solving and Decision Making** - Using a variety of strategies to clarify and analyze problems and to make decisions;
- **Research and Program Evaluation** - Encouraging experimentation and assessing outcomes;
- **Motivating and Organizing** - Helping teachers to develop a shared vision and achieve collective aims;
- **Personal Development** - Recognizing and reflecting upon one's personal and professional beliefs, abilities, and actions.

QUALITIES OF SUPERVISOR

According to Smriti Chand following qualities are required to be a good supervisor are;

1. **Knowledge of the Organization:** The Supervisor should have full knowledge of his/her organization for all respect Academic, Managerial, Non Academic etc.
2. **Technical Knowledge:** Present era is of technology. So we must have technology knowledge to handle the departmental queries or other technical problems within the organization.
3. **Ability to Communicate:** Communication is the key to success. He\she must know how to communicate with each and every member of education process like parents, teachers, students, management etc.
4. **Ability to Listen:** He\she must have patient to listen the problems of the stakeholders, teachers, students, non-teaching workers also. He is responsible to make a healthy environment in the organization.
5. **Sharp Memory:** He\she must have good memory to recall the situation back on the behalf of feedbacks, he must move ahead.
6. **Ability to Secure Co-Operation:** Without cooperation, an organization can't grow. Cooperation between teachers, non-teaching staff members, parents, society, management etc. He\she acts as a link between all these.
7. **Orderly Thinking:** His\her vision and thought process effects the school culture as a whole.
8. **Ability to Judge Subordinates:** He\she must have ability to judge the co-workers in the organization. The judgement should not be depend upon the others words. He\she should have his\her own abilities to analyse or to judge others on the basis of their work, behaviours, attitude etc.
9. **Emotional Stability:** He\she must have emotional stability. He\she has to balance his heart and mind both to run organization effectively.
10. **Miscellaneous qualities:** Other than above qualities, he\she must have his own ethics and believes. He\she is the iconic person in the organization. Others try to follow him\her so in all we can say he must have balanced personality, physically, emotionally, mentally, socially etc.

PURPOSE OF ACADEMIC SUPERVISION IN EDUCATIONAL CONTEXT

- ❖ The scope of academic supervision extends to all the areas of educational activity with the larger purpose of improving the productivity of education through upgrading the quality of instruction and other school practices by the teacher.
- ❖ Purpose of Academic Supervision is to achieve the ultimate goal and values of education which is determined democratically through the participation of all the people concerned with the educative process specially teachers because only teachers can bring desirable changes in the education system. Academic supervision is to achieve improvement in teaching learning situations.
- ❖ The aim of the supervision is not only to administer, to control or to dominate rather it's a matter of improvement in education system as whole i.e. teachers, pupils and organization.
- ❖ Moreover the purpose of academic supervision is to give feedback which facilitate teachers to develop or to improve their abilities to achieve the learning goals which ultimately Benefits their students as well as themselves.
- ❖ The aim of the academic supervision is not only be conducted to assessing the drawbacks of teachers rather it identifies the areas of improvement like where the improvement is needed ;in demonstration part, in using teaching aids , in class control during lecture ,in handling queries ,attracting learner towards studies etc.

CURRENT PROVISIONS AND POLICIES

Academic Supervision is done by supervisor, administrator and head of different institutions .As far as schools are concerned academic supervision of teachers is also well knitted in the curriculum. The concept of academic supervision is woven in academic inspections also which has been carried out by CBSE. Academic inspection is a wider term as compared to academic supervision but academic supervision is an integral part of it. It is also observed after review of affiliation byelaws of CBSE that in academic inspection many parameters like infrastructure, land, legal documents and human resources are to be checked and verified by the CBSE paneled committee members and the academic supervision of the teachers is also carried out at that time by nominated members. Moreover academic supervision is day to day activity of school but academic inspection is conducted by CBSE nominated members once in three to five years. The more broader concept is that academic inspection is external and academic supervision is internal. As per Pedagogical Leadership: A Handbook for Leading Learning in Schools, a Format for Principal's Daily Schedule is suggested in which to observe lessons of the teachers is a daily activity of a school head.

(http://cbseacademic.nic.in/web_material/Manuals/Pedagogical-leadership-Handbook.pdf)

As far as the trends of academic supervision of teachers are concerned , government and private educational institutions both conduct academic supervision of teachers to improve the teaching learning process. In educational institutions (both private & government), schools promote regular academic supervision. As far as government educational institutions are concerned in case of schools specifically, teachers promotions and incentives are based on the assessment of academic supervision. In private schools, academic supervision is the integral part and parcel of daily school activities. Academic Supervision has its practicability and importance in educational institutions among government schools too eg. APAR (Annual Performance Appraisal Report) & ACR (Annual Confidential Report) (<http://rpsssharyana.in/wp-content/uploads/2018/04/APAR-TGT-PRT.pdf>) of every regular teacher is conducted by the heads and submitted to the higher authorities of PSSB and HBSE as well. On this report, promotions and grade improvements are done. In Kendriya Vidyalaya, the supervision of the teachers is also carried out on the regular basis and the report submitted by the head of the

institution by Kendriya Vidyalaya Sangathan. (https://ivribareilly.kvs.ac.in/sites/default/files/Admission%20Guidelines%202021-22_216.pdf).

In private schools affiliated with any board (CBSE, PSSB or HBSE) academic supervision is done on the regular basis which provides the feedback in the written as well as verbal form. It will help the management to reframe/upgrade the academic supervision methods or practices which will further increase the effectiveness and accountability of teachers towards their job.

Hence Academic supervision is a cooperative enterprise in which everyone has the right to contribute. Supervision provides full opportunity to discussion, free expression of views and opinions, enlists participation of all persons and welcomes and utilizes their contribution for the improvement of the teaching-learning situation and process.

CONCLUSION

Academic Supervision should be planned collectively by all educational policy makers. Its programs should be flexible and related to the situation, moreover analysis and improvement of the situation too.

Academic Supervision employs various techniques such as observation, demonstration, visits, workshops, seminars, conferences, teacher's guides, handbooks of suggestions, professional journals and in-service educational trainings etc

It has been also observed that the NEP 2020 more emphasis is given on the cluster making of the school and on the strategies of requirement of the teachers as compared to developing the curriculum frame work strategies and academic supervision of the teachers. so this article is helpful to attract the attention of the policy makers and high authority of education towards the importance of the academic supervision.

A systematic academic supervision can bring desirable changes in the process of teaching and learning. Academic supervision should be woven in teaching learning process as a routine mandatory activity performed by the head or the supervisor so he /she would not take it as a unnecessary .They should be professionally trained so they can understand the need, importance, motives and outcomes of these activities. If the head of the institutions act diplomatically ,suggestively ,and impartially only than the teachers can be friendly with it.

Academic Supervision can make its best effort to evaluate and improve the work accountability and teacher effectiveness of teachers , with the help of community's assistance and cooperation of policy makers ,head of the institutions and of course teachers too .

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THE SEMIOTICS OF SPACE IN THE PLAYS ANNA CHRISTIE, THE HAIRY APE AND LONGDAY'S JOURNEY INTO NIGHT BY EUGENE O'NEILL

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ABSTRACT

Eugene O'Neill, greatest American playwright, brings for his audience great human suffering and presents the vanity of all human effort through his plays. He represented the Drama of Sea by incorporating the possibility of 'beyond' within the traditional dramatic conventions. This paper will explore the semiotics of space in Eugene O'Neill's plays The Hairy Ape, Anna Christie and Long Day's Journey into Night. O'Neill was able to reproduce the vastness of ocean on the American stage through semiotics of Theatre and Drama. He successfully 'contextualized' overboard deck politics and drawing room drama into possible dramatic worlds. The realistic depiction of architecture and nature in The Hairy Ape and Emperor Jones also adds to the expressionist theatre of Eugene O'Neill.

O'Neill romantically attached to the places in Boston, one of them being Jimmy Priest, where he went with his sailor mates, materialized in many of his plays. He reproduced these spaces from his memories with great precision considering these spaces as a place for working class man to drink heavily after a day's hard work below deck. The gloomy atmosphere or place covered with fog and resounding foghorn aids the dramatist in depicting loss and decay of American Life on the stage. Sharp noise of foghorn cutting the unusual quietude of night stimulates painful emotions offaithlessness, retribution, rootlessness, nervousness etc. He uses atmosphere to suit his drama in creating strong and impactful situations that brings his audience to sympathize with the protagonist.

At the time of his death he summed his life into "born in a hotel room and died in hotel room". O'Neill's inability to pursue an optimistic approach to life due to unhappy familial relationship made him have a tragic vision towards Life. There is no reconciliation to be found on his stage which leads to utter desolation and dejection in his Drama. The settings in Eugene O'Neill's plays send aesthetically justified messages to the audiences as intended by the Dramatist.

Keywords: Alienation, Drama, Familial, Loss, Psycho-Social, Space, Stage, Scenic, Sea, Tragedy.

Eugene O'Neill cultivates the idea of primordiality in his choice of themes, atmosphere and elements in the plays Anna Christie, The Hairy Ape etc. O'Neill labored to derive his own philosophy of drama by understanding the purpose and need of Greek theatre. He read Nietzsche's criticism of tragedy and admired Strindberg's contribution to drama in Europe. O'Neill's melodramatic life and war-torn age can be said to have contributed to the development of his drama like other modern dramatists. Beginning from his early plays of the Sea one can perceive that the dramatist attaches a sense of belongingness with the place he represents. He tries to weave a rhetoric that is referential of a primordial place imaginary or physical, land or sea. Like the memory attached to a place on land, locating places on the sea is also a collective process for the characters and audience. People tend to attach cultural meaning to places and witness strange familiarity with it to the point where everything becomes meaningless and absurd. This process enables a possibility of recreation of the past and makes theatre a site where new meanings take birth from existing myths and legends.

The place represented on stage contributes to the scene, atmosphere, action, emotions of the themes of the plays. Several readings or spectacles of Oedipus Rex, Antigone, Electra, Agamemnon have led its readers to attach tragic emotions to Grecian archipelago. (And the adjoining islands). A place is unconsciously woven with deeper symbolic meanings by poets and playwrights that can lead to rhizomatic burst of meanings on newer productions. In the Greek tradition a poet began by singing of a Place creating the first connection between mind and space. One or multiple stories of places with tragic pasts earned its first currency in the Greek Theatre and continues to gain nexus of meanings in the present times with their flooding adaptations at different places and medias. A location of land or Sea may have different atmosphere, but they can have similar ways to unfold a story. These stories can be said to have unity of emotion because a character can feel alienated in society both on land and sea. Eugene O'Neill represents the alienation which comes from dissociation with a place as his characters often find themselves torn between the willingness to belong to another place.

Ernest W. B. Hess in the article Spatial turn: On the concept of Space in Cultural Geography and Literary Theory says "some traditional questions of aesthetic and fictional constructions of space are again brought to the attention of literary theory, though the focus has shifted. The interest is now directed towards space as a 'cultural construct' and 'social product' which bridge this approach to anew perspective and purpose of cultural geography." This spatial turn can be seen in the plays of Eugene O'Neill as Anna wants to get married and live with Burke to continue a sea life unlike her mother who was left alone to fend for both of them and suffer on the continent. Chris Christopherson, Anna's father is bound to live on sea and doesn't want his wife or daughter to come near it, thinking of them to be safer on the continent. Later in the play, he opposes Anna on marrying a sailor and her willingness to spend her life wandering to vulnerable places. His contempt of sea can be understood through his deeply felt regret of not being present for his wife and daughter thus, blaming the sea for stealing a significant part of his life. Therefore this play centers on Chris's fear of the uncertainty and vulnerability related to sea which assumes far greater terror in context to his wife and daughter.

Like the epic theatre of Brecht "that made great play with the duality of the actor's role onstage sign-vehicle par excellence, bound in a symbolic relationship which renders him 'transparent', at the same time that it stresses his physical and social presence" (The Semiotics of Theatre and Drama); O'Neill can be said to represent this duality of the space on the stage. He excels in creating in creating a way to represent 'beyond' and 'bound' through the spaces that on the one hand entrap a character/ human being, and on the other hand offer vast possibilities depending on their needs. The word 'bound' means a limited territory or edges or fringes or boundaries can be found to assume multiple interpretations and never restricted to one realistic meaning. The effect of enclosed spaces can be seen in the cramped and stinky bar in *The Hairy Ape* "Tiers of narrow, steel bunks, three deep, on all sides The room is crowded with men," here the playwright require its inhabitants to feel the necessity of space and enable them to reflect on their condition. This effect can be realized when one sees the 'hairy-chested' Yank in the position of Rodin's thinker, who is annoyed by his company over the subject of class, home, past, memories etc. . Nothing seems to sooth him leaving him only one step from renouncing the world but next thing one knows is, he is in complete harmony with the life below the deck of the ship and thinks of himself to belong to the space heated with furnaces and boilers "It get me! De engines and de coal and de smoke and all de rest of it! He can't breathe and swallow coal dust, but I kin, see? Dat's fresh air for me! Dat's food for me! Hell in the stokehole? Sure! It takes a man to work in hell. Hell, sure dat's my fav'rte climate." (*The Hairy Ape*, 13).

The scenic spaces in Greek tragedies were mostly open spaces constantly reminding its audiences that the performance on stage completely aligned to the natural phenomenon. O'Neill wrote about the drama of sea and then found naturalistic ways to depict the realm of infinite into

the finite. He experimented with sound, themes, techniques, visual effects to trap the imaginary space and recreated places like Johny's Priest, the bar in Anna Christie merely out of his memory. The playwright never politicized the social themes to benefit through propagandist means thus his plays primarily expose the hypocrisy prevalent in the society. The Hairy Ape features the crisis in the society and Yank is against all kinds of norms rooted deep in the society. The spatial representations in the play can tell much about O'Neill's motivation to dramatize the absurdity of human life. Below deck- Stokehole, Fifth Avenue, Prison Cell, The monkey house at zoo etc all the places are meant to signify the imprisonment, entrapment of the modern man who is disillusioned and cannot find a way out of such a world. Paddy, who lives with the nostalgia of the past life above deck- free from the smoke and coal, stands in stark contrast with Yank who feeds on smoke, a rare imagery used to signify the belongingness of space. The pride he associates with the space is crushed "He feels himself insulted in some unknown fashion in the very heart of his pride" by the arrival of Mildred when she calls him a 'filthy beast'. He musters all his strength to find a new space of belongingness, ending up at the zoo, rethinking his 'being' by associating himself with the Gorilla in the cage. Thus, the space is transformed into prison cells for some and utopian dream for others.

Rush Rehm in "The Play of Space: Spatial Transformation of Greek Tragedy" categorized the spaces on Stage into Scenic, Extrascenic and Distanced Spaces by giving instances of Greek Tragedy. Eugene O'Neill can be said to have violated unity of time and place in his initial plays but reconciled to observe the unity in the final play *Long Day's Journey into Night*. All the scenes in the play are that of a boarding house which can be said to employ extrascenic space (Rehm, Rush.) or the offstage narrative. The characters refer to certain times and spaces in past to engage the spectator into a discourse and they also hide truths from their fellows only revealing it to the audience through a monologue or in aside. Thus, spectator witnesses every character suppressing some secret while communicating with the other that too in the menacing atmosphere of the boarding house. O'Neill uses the effect of sound and vision to heighten the menace by constant reference to noise of foghorn, cough, lights, drugs etc. The psychological drama enabled him to recreate an imaginative narrative on American stage tracing down the classical drama.

Long Day's Journey into Night becomes a classic example of psycho-social drama that represents the familial space on the stage. The space the characters share on stage is not just physical- that of a house, but psychological- where they are bound to each other on a mental space. O'Neill's genius lies in redefining their relationship on a psychological level every time they are in discourse with each other and the mechanism works in every condition they are exposed to. The Tyrones are in complex relationship with each other for eg. Edward and Jamie hate their father's miserly habit and blames Mary's condition to the same. Jamie's visit to prostitute and his frolicking habit is attributed to the absence of motherly love in his life. The family space also portrays the feeling of other every characters develop in conflict with every members of the family. Therefore, the Tyrone household signifies the psycho-social space on the stage which is capable of evoking powerful emotions through the helplessness of the characters to love and embrace each other.

O'Neill represented both misplaced as well as normal places with their own cultural and social significance like the Ship and a family household. The Ship is located outside the direct view of society thus removed from center of the society. Present day meaning of 'Other' is derived from the dramatization of barbarian as 'Other' in Greek Tragedies where one can observe clear distinction between the Space and the Other. New societies are formed with transmission of marginalized spaces into central and authorized places and vice versa. The cramped spaces of the Ship in O'Neill's plays, embody the desperate situation of the marginalized classes. The exploitation of working classes by the capitalist can be understood only after a visit below the

deck with Mildred who underwent a journey into stokehole to “discover how the other half lives”. The stokehole is twice removed from the main stream society and turns into a land of no return for the sailors who, except Yank, cannot ‘think’ of the possibility of a superior world- free from individual biases and materiality. Yank stands in contrast to Mildred as well as other sailors, who either long for home or past, but Yank unlike Mildred or the sailors possess essential energy and the ability to think of transforming himself and his space to a superior level. The cramped space where he said he belonged ceased to be the same after being called a beast by a capitalist intruder in the form of Mildred. The above deck conversation between Mildred and her Aunt is also representative of a typical conversation between high society white women.

The Long Day’s Journey into night features some spaces as a figment which does not get materialized on the stage but simply woven into words. O’Neill specifically chose a Day which he thought, made vast changes in the lives of all four members of his family. Most of the play happens in the drawing room but other parts of the house are constantly referred in relation to Mary’s drug habits. Whenever Mary wants to remove herself from the sight of other members and go upstairs, Jamie and Edmund register fright as they suspected Mary’s return to her drug habits. Mary and even other members of the family always want to withdraw and find a secluded space to escape from each other’s accusations. The physical space is transformed into a psychological space where characters cannot accept any criticism instead long for each other’s approval. The Tyrone household is the archetypal tragic space where its essential function of love and care, took place of hatred, accusation, violence, redemption etc. O’Neill’s acutely saw the purpose of representing the psychological space of social relationships on the stage.

The spaces and characters contribute to building a sense of loss and abandonment in *The Hairy Ape* and *Long Day’s journey into Night*. O’Neill uses some stage properties that occupy physical space like: Elm tree, drinking houses, ships, Sea etc., symbolize certain human emotions like grief, mourning, alienation, loss etc. In *Desire Under the Elms*, the Elm Tree stands for the rottenness of the society and the space under it bears the fruit of lust and envy. O’Neill was conscious of the materiality and decay of American society where values and traditions lost their meaning and individuals were suffering from lack of faith. Eugene O’Neill went a long way to keep some of his religious belief intact all his life, but reading influential authors like Conrad, Melville, Nietzsche, Strindberg etc and secluded life left him to ponder over the mystique of religion. The loss of faith from the very center of his world can be said to trigger him on a suicidal attempt but recovery gave him a new belief in Will and Rebirth.

Attic Tragedy took birth in Greece in the same conditions as O’Neill’s America in the middle of two great wars and at the epicenter of it all, only O’Neill’s America would become the face of the changing world order. James O’Neill, Eugene O’Neill’s father came from Ireland and always tried to uphold his traditional values, but remained unsuccessful in providing a secure space to his family as Mary complained of not being able to look after her children by herself as she had to accompany James on his tours. Mary at her father’s home practiced Catholicism strictly by going to church for Sunday services but couldn’t find time for religion after marriage. In modern drama a person can be called religious in accordance of his association with pure and heavenly spaces of church but not the hotel rooms or “her moving around in the spare room”. The moment Jamie spoke “around three o’clock this morning, I woke up and heard her moving around in the spare room” a dread of superstition and an unknown realm enters on the stage giving air to gossips and later Mary accused Edmund of being spied by the men of her family, sends guilty conscience to Edmund and the very next moment he rests assured reading a book while Mary unapologetically spends time alone with herself in the “spare room”.

A stage represents spaces on a given space with tools and techniques invented by the dramatists. The renaissance theatre evolved while capturing the melancholic villain like Bosola, Tamburlaine, and other anti-heroic characters. These characters are given spaces to speak to

themselves after they smell some intrigue by the actor/actress introducing the psychological workings of their nature for the spectators to redefine their individual meanings of good and evil. Rush Rehm in "The Play of Space: Spatial Transformation in Greek Tragedy" refers to distanced spaces as "one that bears no immediate relationship to the scenic givens that provide the settings".

Rehm thought of this concept in the light of those spaces like Corinth, junction of three roads where Oedipus killed the King that have a presence, but "lie beyond the theatrical and scenic areas visible to the audience". The distanced space which couldn't be represented until modernism was simply given words and represented through soliloquies, asides, narrator's remarks etc on the stage. O'Neill's plays are full of asides and narratorial observations as he wanted to make sure that his plays were staged in the same way he envisioned it.

Modern drama doesn't just critique or mourn the loss of certain spaces and time but seriously render it in the language of the characters speaking in front of the audience. Every character is carrier of the social message that modern dramatist wants to convey to his audience. The spaces staged and the space not staged are all part of the dramatist's agenda to include in the discourse. With upsurge of World Wars new issues invaded the society like depression, alienation along with the age old quandaries like loss, pain, dilemma, suffering etc. The spaces he transforms into tragedy have the bearing of Nietzschean and Strindberg's conception of the genre. The decay he expressed eventually became the tragedy of the characters and thus he found ways to connote the space with meanings decoded by his audience.

At the initial stage of his plays O'Neill was able to represent the places of isolations for example in *The Hairy Ape*, Yank finally found the place of nothingness in the zoo but remains unsatisfied because he couldn't even own it. Slowly the isolated spaces in his plays began to assume the distanced spaces as termed by Rush Rehm. Mary Tyrone in *Long Day's Journey into Night* is never shown in the space of her isolation but it remains the subject of every character's dialogue echoing throughout the play. Isolated space in the plays, perform an important role in the development of the plot and becomes integral in O'Neill's theatre. Eugene O'Neill demonstrates challenging spaces and associate them with powerful emotions like depression, fear, anger, gloom, retribution etc.

CONCLUSION

The representational quality of space was fully realized in post-modern critique of tragedy and Drama. Modern dramatists like Beckett and Pinter began experimenting with the physical and psychological spaces in realizing dream sequences and alienation felt by their characters on the traditional stage. This study applies the theories of space and semiotics of spaces in the drama of Eugene O'Neill. O'Neill wanted to find modern applicability and relevance of classical themes and techniques. Modernity was born with the need to have multiplicity of meanings and perspective thus, from this stand point O'Neill was a true modernist. His sense of space itself assumes multiple meaning with a shift in the kaleidoscope sending his spectators to actively participate in the action of the play.

Modernist poets and authors are mainly said to have experimented with time but O'Neill's age gets extended to post-modernism as he was well aware of the emerging new spaces in art and aesthetics. He was also aware of the purpose a space might serve in engaging the audience with the family drama or drama of sea on the stage like that in *Long Day's Journey into Night* where the drawingroom of the Tyrones denote nervousness, gloom, alienation, drunkenness etc. Every space represented on O'Neill's stage signify powerful emotions or provoke thoughts amongst the audiences. O'Neill tries to emulate the troubled surface of the sea on the stage as his drama illustrates other or misplaced spaces in any society. Eugene O'Neill's drama can be helpful in interpreting the psychological and extra scenic spaces represented in early Greek and Elizabethan tragedies.

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THE SIGNIFICANCE OF ADVANCE RESEARCH METHODS FOR CONDUCTING RESEARCH IN THE SOCIAL SCIENCES: AN ANALYSIS

Dr. Ramarao Bonagani

ABSTRACT

The social science research differs from research in the natural sciences as a result of its focus on people such individuals and groups and their behaviour with in cultures and organizations that vary widely socially and historically. The quantitative and qualitative research methods are considered as the advance research methods in the social sciences disciplines research. The quantitative researchers are mostly concerned with measurement and sampling and often use deductive reasoning. In contrast, qualitative researchers tend to be more interested in content and use induction with more frequency. Many social sciences researchers use both qualitative and quantitative methods to provide fuller and more complete explanations in their respective researches.

Keywords: Qualitative, Quantitative, Methodology, Advance, Research, Significance

INTRODUCTION

The research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. The Advanced Learner's Dictionary of Current English lays down the meaning of research as "a careful investigation or inquiry specially through search for new facts in any branch of knowledge". Redman and Mory defined research as a "systematized effort to gain new knowledge". (CR Kothari(2004),p.1). These are applicable to the social sciences disciplines research. The research in the social sciences draws on various long established traditions. Its origins might, for example, be said to lie with the Greek philosophers such as Plato and Aristotle, who developed ways of conceptualizing and categorizing knowledge, truth and human experience during the fourth century BC. Fundamentally, social sciences research is concerned with people and their life contexts, and with philosophical questions relating to the nature of knowledge and truth (epistemology), values (axiology) and being (ontology) which underpin human judgements and activities (Bridget Somekh article in an edited book(2005),p.1).

The empirical social sciences research that is research which involves the collection of data about people and their social contexts by a range of methods draws heavily upon the traditions and practices of disciplines such as anthropology, sociology, psychology, history and creative arts and so on. The notion of the social scientist creating knowledge by bringing vision to the interpretation of facts was central to the work of Mills (1959) and more recently researchers such as Eisner (1991) have emphasized the importance of the social scientist as connoisseur (Bridget Somekh article in an edited book(2005),p.2).

Evolution of Research in the Social Sciences

As a recognized and codified practice, however, social science research has its origins in the emergence of the nation-state with its political demands for the classification and analysis of individuals and populations. Anthropology, for example, emerged in the service of colonialism. The very term social science indicates its emergence in relation to sometimes in opposition to natural science (Bridget Somekh article in an edited book (2005), p.2). The social sciences research differs from research in the natural sciences as a result of its focus on people such individuals and groups and their behaviour within

cultures and organizations that vary widely socially and historically(Bridget Somekh article in an edited book (2005),p.3).

The early twentieth-century social scientists struggled to extricate themselves from the accusations made by logical positivism that research which lacked the solid foundation of measurement was no better than fancy and invention. They sought to develop methods which conformed to the methodology of the natural sciences, and researchers such as George Homans ('general theory') and Kurt Lewin('force field theory') focused on seeking generalizable laws governing the behaviour of human groups. Today the historical shaping of social science research in a struggle to be 'other' than, but equivalent to natural science research lingers in the imagination of the public, politicians and policy-makers. There remains a political dimension to being a social science researcher, pursuing knowledge and understanding of individuals, social groups and organizations, in a world where status is not accorded equally to different research methodologies(Bridget Somekh article in an edited book(2005),p.2).

However, across the social sciences and humanities, there are differences in the development and popularity of particular methods, differences that are also evident cross-nationally. From the 1930s onwards survey research and statistical methods have assumed a dominant position, whereas qualitative methods have gained ground more recently. There has also been a recent resurgence of interest both in the social sciences and humanities in quantitative methods and in mathematical modes of inquiry, for example, fuzzy logic. Mixing different methods (e.g. Goldthorpe et al. 1968) and the innovative use of statistical analysis (e.g. Bourdieu 1984) are not, however, recent phenomena (Pertti Alasuutari, Leonard Bickman, Julia Brannen(edited)(2008),p. 1).

The growth of explicit interest in mixed-methods research designs dates from the late 1980s, resulting in a number of specialist texts but the practice has historically been intrinsic to many types of social science research. In qualitative research, many researchers have incorporated several quantitative approaches such as cross tabulation of their data ; and some have adopted a multivariate approach. In 1987, Charles Ragin published his text on qualitative comparative methods, which lies in between qualitative and quantitative methods and draws upon logic rather than statistical probability. Historically there has been a plurality of practices of social research (Pertti Alasuutari, Leonard Bickman, Julia Brannen(edited)(2008),p. 2). The social research is a method used by the social scientists and researchers to learn about people and societies so that they can design products/services that cater to various needs of the people. Different socio-economic groups belonging to different parts of a county think differently (<https://www.questionpro.com/blog/social-research>).

What distinguishes the social sciences today is a positive orientation towards engaging in different types of research practice. The present-day scholars undertaking empirical research view methods as tools or optics to be applied to several different kinds of research questions that they and their funders seek to address in carrying out research. Coding observations and subjecting them to statistical processes is one way of creating and explaining patterns. The Case study and comparative approaches are others, the explication of the logic that brings together the clues about a case and has an explanatory purpose with reference to other cases. These two approaches can also be combined as in embedded case studies that employ both a case study design and a survey design(Pertti Alasuutari, Leonard Bickman, Julia Brannen(edited)(2008),p. 2).

Although qualitative and quantitative methods have evolved from very different scientific traditions as, among others, Charles Ragin (1994) points out, from the viewpoint of how empirical data are used to validate and defend an interpretation, they form a continuum. It can

be argued that the two concepts, 'qualitative' and 'quantitative', are not so much terms for two alternative methods of social research as two social constructs that group together particular sets of practices. For instance, quantitative research draws on many kinds of statistical approaches and is not necessarily epistemologically positivistic in orientation. While the social survey is the current dominant, paradigmatic form, there is no uniform 'quantitative research' (Pertti Alasuutari, Leonard Bickman, Julia Brannen (edited) (2008), p. 2). Similarly there is no uniform 'qualitative research' either. Because much of the craft of empirical social research cannot be classified as either qualitative or quantitative, an increased permissiveness toward mixing methods and questioning of the binary system formed by the terms 'qualitative' and 'quantitative' are welcome trends (Pertti Alasuutari, Leonard Bickman, Julia Brannen (edited) (2008), p. 2).

In this new paradigmatic situation many contemporary scholars no longer regard it as reasonable to divide the field of methodology into opposing camps. On the one hand, researchers are willing to learn more about the possibilities of applying survey methods and statistics to their data analysis. On the other hand, what is known as 'qualitative research' has gone a long way since Malinowski's (1922) principles of ethnography or Glaser and Strauss' (1967) grounded theory. Different methods of analyzing talk, texts and social interaction have multiplied the 'optics' available to scholars who want to study social reality from different viewpoints (Pertti Alasuutari, Leonard Bickman, Julia Brannen (edited) (2008), p. 2).

Advanced Research Methods in the Social Sciences

Methodology, as it is understood simply refers to the ways in which we acquire knowledge and comprises a multitude of specific methods and techniques. As such it is embedded in an epistemological tradition of critical rationalism (Karl Popper) and scientific realism. This has been summarized as the "two fold conviction that the world consists of causal mechanisms that exist independently of our study or even awareness of them and that the methods of science hold our best possibility of grasping their true character" (Nathaniel Beck article in an edited book, p. 1557). Moreover, the term 'methodology' may be defined in at least three ways: 1) a body of rules and postulates that are employed by researchers in a discipline of study, 2) a particular procedure or set of procedures, and 3) the analysis of the principles of procedures of inquiry that are followed by researchers in a discipline of study.

The methodology in the social sciences is usually characterized by the following such as: 1) it defines the information to be analysed; 2) it provides the procedural tools and procedures necessary to perform an analysis; and 3) it sets forth the limits of the analysis. Methodology necessarily encompasses the three facets of exploration, description and explanation. Many of the social sciences sub-fields (example, economics, psychology, sociology etc) have developed specific models for the collection and organization of knowledge (Ginny E. Garcia and Dudley L. Poston Jr. article in an edited book, p. 107).

According to Herbert Blumer (1969), methodology refers to the 'entire scientific quest' that has to fit the 'obdurate character of the social world under study'. Thus methodology is not some super-ordained set of logical procedures that can be applied haphazardly to any empirical problem. In short, methodology constitutes a whole range of strategies and procedures that include such as: developing a picture of an empirical world; asking questions about that world and turning these into researchable problems; finding the best means of doing so that involve choices about methods and the data to be sought, the development and use of concepts, and the interpretation of findings. The methods per se are therefore only one small part of the methodological endeavour (Pertti Alasuutari, Leonard Bickman, Julia Brannen (edited) (2008), p. 1). The following are the two (quantitative and qualitative) major important advanced research methods in the social sciences analysed below.

Quantitative Research Method

In the social sciences, quantitative research can be generally defined as any research that uses numbers as the basis for making inferences about the phenomenon under study. The hall marks of quantitative research are control over extraneous influences (often involving experimental manipulation) and more generally, statistical approaches to sampling, measurement, and data analysis (Jeffrey C. Valentine article in an edited book, p.112). The goals of research represent a convenient way to discuss different types of quantitative research. Researchers employ a descriptive research strategy when they are interested in a numerical description of an object, event, or situation (Jeffrey C. Valentine article in an edited book, p.112).

The branch of mathematics known as statistics is widely employed in quantitative research. Statistics is relevant to quantitative approaches to social science in three major ways such as first, researchers rarely work with entire populations (e.g., all elementary students in a country), as these are generally too large to study. Instead, researchers work with samples, and statistics provides a way of quantifying the expected range of differences between a randomly drawn sample and the population. This is best illustrated in political polling. A second major use of statistics in quantitative research is in group comparisons. A third major use of statistics in quantitative research involves statistical modelling of the interrelationships between variables (Jeffrey C. Valentine article in an edited book, p.113).

Quantitative research is often contrasted with qualitative research. The latter overlaps somewhat with descriptive approaches to quantitative research, but instead of resulting in numerical and statistical descriptions, qualitative research often is presented in narrative form. Historically, the distinction between qualitative and quantitative research created a rift among social scientists. At the extremes, quantitative social scientists have argued that a question is not truly scientific unless it can be formulated in mathematical or statistical terms, while qualitative social scientists have argued that quantitative approaches are too crude and can therefore never result in valid knowledge. Most of the modern social scientists believed that qualitative and quantitative methods can complement one another. This recognition is reflected in the growing use of so-called "mixed method research," in which both qualitative and quantitative methods are employed in the same research study (Jeffrey C. Valentine article in an edited book, p.113).

The quantitative researchers are mostly concerned with measurement and sampling and often use deductive reasoning. In addition, it is important to identify facts and laws that can be used as predictive tools. Quantitative research provides data in numerical form and allows for the manipulation of the data using statistical procedures. That information can then be combined with the descriptive data provided through qualitative research to provide more meaningful results (Ginny E. Garcia and Dudley L. Poston Jr., article in an edited book, p.109).

The researchers using quantitative methods seek to transform the collected data numerically so the data can then be analyzed using statistical methods. Quantitative researchers most often use a positivist approach because accuracy is an important requirement. The data are first described using measures of central tendency such as the mean, median, and mode. In most cases, the quantitative researcher next moves to multivariate analyses that examine several variables simultaneously. Quantitative research begins with the formulation of a research question and then a hypothesis or hypotheses. The researcher then identifies and operationalizes the desired variables, creates a standardized data set, defines procedures with which to analyze the data, and finally undertakes analysis using the statistical methods (Ginny E. Garcia and Dudley L. Poston Jr., article in an edited book, p.109). The use of quantitative methods in political science generally means the application of a statistical model to political science data and a statistical model is simply a set of compatible probabilistic assumptions (Kevin A. Clarke article in an edited book, p.2176).

As far as application of quantitative methods in policy studies are concerned, the use of quantitative methods in policy analysis has its intellectual roots in Harold Lasswell (1951, 1970, 1971), who envisions an overarching policy science discipline based on social science knowledge and methods to analyze policy choices and decision making for the democratization of the society (Kaifeng Yang article in an edited book, p.349).

Qualitative Research Method

The 'Qualitative research' is a broad idea. The qualitative nature of research may be derived from the research issue, the methods used, the analysis strategies, and the scientific justification of the procedure used (J. W. Heyink and T.J. Tymstra (1993), p.292). The research is called qualitative if it is about determining "what things 'exist' rather than to determine how many such things there are". More literally, 'quality' refers to the nature of things, rather than to their quantity. Whereas quantitative research initially is product oriented, ("What is the impact/outcome of the programme?"), qualitative research is particularly suitable for analyzing processes ("Why does the programme work, or what is exactly the reason why it does not?"). The qualitative method aims pre eminently at clarification, interpretation and to a certain degree at explanation (J. W. Heyink and T.J. Tymstra (1993), p.293). It is not so much the nature of his/her research subject that distinguishes the qualitative researcher from the quantitative one, but the way he handles it. The subject of qualitative research is usually seen in its unicity and not as an exchangeable specimen of a category. In the terminology of Allport (1962) it can be stated, that in qualitative research the morphogenous approach is chosen rather than the dimensional approach in quantifying research (J. W. Heyink and T.J. Tymstra (1993), p.294).

Qualitative research includes a variety of approaches that attend to words, arguments, memes, ideographs, symbols, images, signs, significations, narratives, plots or other symbolic practices in an attempt to understand the phenomena better. Wherever it focuses its attention, qualitative research is interested in meanings, themes, relationships and patterns, not much in hypotheses, variables, measurements, probability sampling, statistical inferences or correlations. Cresswell says, "qualitative research is an enquiry process.... in which the researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting". Moreover, he also credits Ragin with recognizing that, "qualitative research rely on a few cases and many variables". For that reason, it is sometimes characterized as a small n research (Larry S. Luton article in an edited book, p.2900).

The qualitative researchers tend to be more interested in content and use induction with more frequency. In this case, the meanings associated with human behavior are taken into consideration. The qualitative methods examine social data without quantifying the data. The qualitative researchers often examine the links between theory and analysis and seek to discover general patterns among and between their variables. Some of the methods involved in qualitative research include grounded theory, semiotics, and conversation analysis. The qualitative researchers more frequently use an interpretive or critical approach and are interested in allowing the meaning of their work to develop as they conduct more research. They are further interested in using their research to explain and predict. Their data usually take the form of words, rather than numbers, and such researchers most often reason via induction (Ginny E. Garcia and Dudley L. Poston Jr., article in an edited book, p.109).

The qualitative methodology is used by social scientists in the study of human behavior. This methodology may be used in addition to or in place of quantitative methods. The use of qualitative methods by social scientists allows the researcher to obtain a rich set of data that is not easily obtainable with the use of quantitative methods. The qualitative methods encompass a variety of methodologies, including observation, interviewing, document analysis and archival document analysis (Gabriela Guazzo article in an edited book, p.110).

The two key methods used in the social sciences are observation and interviewing. Observation involves the examination of research subjects in the natural social environment with particular attention paid to the subject's behavior and actions. In contrast, interviewing involves direct interaction between the investigator and the research subject. The investigator speaks directly with the subject asking questions related to a specific topical area. Interviews are generally recorded utilizing audiotapes, videotapes, or written notations. Interviewing may take the form of structured or semi structured interviews (Gabriela Guazzo article in edited book, p.110). The analysis of qualitative data includes a variety of methods such as including grounded theory, narrative analysis and computer-based approaches (Gabriela Guazzo article in edited book, p.111).

Over the past two decades, the use of qualitative research in the social sciences has increased significantly. The qualitative research involves research that uses observational, communicative, and documentary methods in natural settings in an effort to understand the social world. Some qualitative researchers have remained squarely in the scientific tradition of post-positivism, insisting on objectivity, rigorous research design, and examining causality. Others are more rooted within interpretive traditions, including symbolic interactionism, ethnomethodology, hermeneutics, postmodernism, feminism, critical theory, and cultural studies and in varying degrees reject post-positivist notions of scientific rigor (Alan R. Sadovnik, article in edited book, p.417).

The qualitative research is based on what sociologists term social constructionism and interpretivism. Unlike quantitative research, which is usually deductive (theory testing), qualitative research is usually inductive (theory construction). The social scientists do not simply discover or find knowledge; they are not detached from the world they are researching. Rather, they actively construct knowledge by inventing tools and instruments to collect and produce data. These tools and instruments are constantly renewed and revised. The social scientists formulate concepts to make interpretations of the data.

Contributing to Knowledge and Understanding

It is contributing to our Knowledge and understanding. This is because, although qualitative research has historically included work that was based on a positivist perspective, today it is more common for approaches qualitative research to be based on either an interpretive or critical theory perspective. These three perspectives involve different ontologies and epistemologies. Ontologies are about reality, the nature of things of what exists. Epistemologies are about our knowledge of those things, how we can know and what the limits of our potential knowledge may be (Larry S. Luton article in an edited book, p.2900). As it can be based on very different paradigms, qualitative research can include many different ways of gathering, organizing and reporting its observations and interviews. Qualitative research has been carried out in ways that are not very different from quantitative research, but one thing that tends to set it apart from most quantitative research is its active recognition that it involves interpretations of those observations and interviews and what they represent about the phenomena being observed. It is empirical, but not empiricist. As Denzin and Lincoln have described it, "qualitative research is a situated activity that locates the observer in the world" (Larry S. Luton article in an edited book, p.2901).

The qualitative researchers are engaged with others, they work within natural settings with those they are observing and interviewing. They attempt to discern what their observations and interviews means, most often in terms that those being engaged would find consistent with their sense of things. One of the most common ways that qualitative research expresses its recognition of the importance of context is through thick description, which attempts to involve the reader in the feel of the case being described. Another aspect of qualitative research that enhances Public Administration's knowledge/understanding is through its approach to

causation. It can present causation as a complex of emergent, unfolding and dynamically interconnected actions, as having iterative, interactive and multi-directional effects (Larry S. Luton article in an edited book, p.2901). The qualitative research approaches also provide a way for the field of Public Administration to incorporate an understanding of tacit knowledge in its body of knowledge. The title of Mc Nabb's book which is in its third edition explicitly includes quantitative and qualitative approaches. In its chapter on research design, it argues that good research often requires using both quantitative and qualitative research approaches (Larry S. Luton article in an edited book, p.2901).

Types of Qualitative Methods

There are quite a variety of qualitative research methods or approaches. The following are the some of the examples analysed below.

The Interview

Beyond any shadow of doubt, the method most used and best documented in qualitative research is the interview. Moreover, the interview as a method used under the qualitative research. Interviews may show marked differences in the degree to which they are structured. This degree of structure may be taken as a continuum. On the other hand we see the interview in which a strict structure can be identified. Here not only the topics to be discussed have been worded and laid down, but also the concrete questions themselves. The sequence in which these will be dealt with has been fixed. The respondent is presented with a limited number of response alternatives, from which he/she makes a selection. Thus the interview has been standardized as much as possible. The interviewer may be seen as the yard stick. Moreover he/she is anonymous, 'exchangeable'; his/her personal influence on the course of the conversation is restricted to a minimum. The researcher has made his/her theoretical concepts operational prior to the interview. Thus the respondent's response serves the researcher's system of concepts, or his theory. This way of interviewing links up with the positivistic research ideas and is strongly quantification oriented (J. W. Heyink and T.J. Tymstra (1993), p.294).

On the other side of the continuum there is the minimally pre structured interview. Topics to be discussed have only roughly been described. Closed questions are avoided as much as possible. The sequence of the questions and the degree to which topics are to be discussed are not fixed. The interview is not standardized; there is ample scope for improvisation. The interviewer has an active and personal influence on the course of the conversation. The objective is to map out (changes in) the respondent's subjective perception of the environment, and that in his/her own terminology. Thus, not the researcher's concepts, but those of the person examined are focused on. In this respect the terms 'open interview' or 'in-depth interview' are also used (J. W. Heyink and T.J. Tymstra (1993), p.295).

Much has been written on the merits of the qualitative interview (see, for example, Denzin, 1970; Silverman, 1985). A brief summary of these merits are such as 1) The respondent himself has the opportunity to raise issues he/she deems essential (for the research), 2) Misunderstandings about questions asked and answers given can be clarified there and then, 3) The flexibility of the interview situation offers the possibility to test out fresh hypotheses straightaway, 4) The interview is a 'wide-band method', because many themes can be checked for relevance at short notice and 5) The interview is considered pre-eminently appropriate for research into feelings, attitudes, intentions and motivations of behaviour (J. W. Heyink and T.J. Tymstra (1993), p.295). However, more deliberate in design than journalistic interviews, qualitative interviews may still be fairly described as "conversation with a purpose". Most generally that purpose is to learn about a research topic from someone else because their point of view is valued. A couple of examples of Public Administration research that utilized qualitative interviewing are Lyles and Mitroff and Lens (Larry S. Luton article in an edited book, p.2902).

Focus Groups

A kind of qualitative interviewing research approach that involves interviewing more than one person at a time, focus groups are a valuable way of adding group interactions to be dynamics involved in interviewing (Larry S. Luton article in an edited book, p.2904). The focus groups originated in sociology in the 1920s, but were primarily used by market researchers for several decades, before regaining popularity in the social sciences in the 1990s, as well as becoming widely used as a marketing and political tool for gathering 'opinions'. They are increasingly being used as a research tool throughout the social sciences, as well as in a wide range of other academic fields. For examples such as health studies, education, political science and geography (Janet Smithson article in an edited book, p.357). Since the mid-1990s, there has been growing recognition of and interest in the potential for carrying out secondary analysis of qualitative data (Janet Heaton (2008), p.33).

Narrative Inquiry

In this interviews are designed to elicit stories from the interviewees. What distinguishes narrative inquiry is the focus on narrative and stories as they are told. Examples of Public Administration research that utilized narrative inquiry include Maynard-Moody and Musheno and Feldman et al (Larry S. Luton article in an edited book, p.2903).

Ethnography

Probably, the most definitive aspect of ethnography is its focus on the culture of the group of people being studied. Whether that group is a primitive tribe or a contemporary organization. According to Cresswell, "An ethnography is a description and interpretation of a cultural or social group or system". The basic purpose is most often to learn about the culture from people within it. Public Administration researchers are most likely to utilize an ethnographic approach to study an organizational culture, the relationship between an organization and the people it serves or impacts and /or the culture of a community being served or impacted. Example of Public Administration discipline research that utilized an ethnographic approach include Kaufman and Lipskey (Larry S. Luton article in an edited book, p.2903).

Case Studies

According to Yin, "a case study is an empirical research approach using multiple sources of evidence and investigating a contemporary phenomenon in a way that captures the dynamics of its natural world context". A case study is likely to include multiple qualitative (and perhaps quantitative) research approaches such as interviews, observations, document examination etc (Larry S. (Luton article in an edited book, p.2903). Examples of classic Public Administration discipline case studies include Allison and Selznick (Larry S. Luton article in an edited book, p.2904).

Content Analysis

If the analysis done is simply based on counting the number of times that terms (or their cognates) appear in a document, such an approach would constitute a quantitative analysis of qualitative data. On the other hand, there are approaches to content analysis that focus on the meaning of the contents in ways that openly depend on interpretation. Examples of work in the field of Public Administration that were influenced by Foucault are Miller's *Governing Narratives*, Wagenaar's *Meaning in Action* and Fischer and Gottweis's *The Argumentative Turn Revisited* (Larry S. Luton article in an edited book, p.2904).

However, apart from the above methods, Qualitative Comparative Analysis (QCA) is also there. It was first introduced to the social sciences by Charles Ragin to identify complex patterns of causation by processing social science data with Boolean algorithms. By conducting a formalized comparison, QCA introduces the logic of qualitative research to the study of a larger number of cases than are usually examined with qualitative methods. The Qualitative Comparative Analysis usually is employed with a middle sized number of cases (10-30) (Lasse Cronqvist article in an edited book, 2173).

However, many social science researchers use both qualitative and quantitative methods to provide fuller and more complete explanations. Indeed, since the 1980s, there has been a convergence of the two approaches, and many analyses use both methods (Ginny E. Garcia Dudley L. Poston Jr., article in edited book, p.109).

CONCLUSION

Both the qualitative and quantitative methods are the presently advanced research methods in the social sciences. The quantitative researchers are mostly concerned with measurement and sampling and often use deductive reasoning. The qualitative methodology is used by social scientists in the study of human behaviour. The qualitative researchers tend to be more interested in content and use induction with more frequency. These two qualitative and quantitative methods are significantly contributing to the social sciences disciplines research for the benefit of humanity.

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THE STUDY OF THE CONTRIBUTION OF CURRENT INNOVATIVE ICT TO PEDAGOGY

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ABSTRACT

The present era is the electronic age. You are hearing the name of e-mail, e-commerce, e-ticketing, e-banking, etc. everywhere in today's time. The information revolution has given the much-hyped word e which means an electronic form of traditional resources. For example, letter/mail is converted into e-mail today, ticket booking is now e-ticketing, banking has changed to e-banking, and business is now slowly taking the form of e-commerce. The development of information and communication technology has made various facilities very easy, fast, and intuitive through electronic means. How can education remain untouched when an electronic entry has been made in all the activities of life? In this research paper, various electronic interventions have been studied in the field of education. The contribution of current innovative ICT in pedagogy has been studied in this research paper.

Keywords: Pedagogy, Current Innovation ICT, Research, E-Portfolio, OECD, New National Policy on Education, E-Learning.

Data Collection Method Used for Research:

Data for the research paper has been collected from secondary data.

Objective of Research

- 1) To get information about e-learning, its various forms and e-learning service providers.
- 2) To study about various electronic interventions in the field of education.
- 3) To study the contribution of current innovative ICTs in pedagogy.

INTRODUCTION

ICTs are seen by teachers as tools to help create an environment for more 'learner centered' learning. The mere existence of ICT will not change the practice of teachers. However, ICT can help teachers to change their teaching methods and achieve greater competence, provided the necessary conditions are provided. Teachers' pedagogical methods and rationale affect their use of ICTs, and the nature of teacher use of ICTs affects student achievement. ,

In OECD (Organization for Economic Co-operation and Development) countries, research findings suggest that the most effective use of ICTs is in cases in which teachers, with the help of ICTs, engage in whole-class discussions or individual Challenges students' understanding and thinking through small group work. ICTs are seen as important tools to enable and support the transition from traditional 'teacher-centered' teaching to learner-centered approaches. ICT can be used to facilitate change and support/enhance existing educational practices. it can be used by teachers in teaching practices, from essentially minor enhancements to traditional methods of teaching practices, to more radical changes in their approach to teaching. ICT can be used to reinforce existing pedagogical practices as well as to strengthen the way of communication between teachers and students. The use of ICT tools for the presentation of information has a mixed effect.

The use of ICTs as presentation devices (overhead and LCD projectors, television, electronic whiteboards, guided "web tours", where students simultaneously view the same resources on a computer screen) is seen to have a mixed effect. While this can promote class understanding and

discussion of difficult concepts (particularly through the demonstration of simulations), such use of ICT can reinforce traditional pedagogical methods and reduce the distance from the topic being discussed. Or divert attention from the equipment being used. Recognizing the importance of Information and Communication Technology (ICT), the Ministry of Human Resource Development has used ICA as a tool in education as per the mission documents. The aim of this is to increase the current enrollment rate in higher education. The Ministry has also launched a web portal named 'Sashakt', which is a 'One Stop Education Portal'. High-quality e-content has been uploaded to 'Sashakt' on all subject areas and themes. Many projects are in the completion stage and are expected to bring about a paradigm shift in the teaching and learning system in India. Presently the project "Development of pedagogical trends suitable for research in different classrooms, intellectual orientations, and e-learning" is being implemented by IIT, Kharagpur. Faculty of all IITs and many NITs are participating in this curriculum development plan. Electric Frequency Shift Application has been developed which is for Low-Cost Oscillator.

The new National Education Policy seeks to harness the potential of ICT through Information and Communication Technology (ICT) by providing high-quality personalized and interactive knowledge modules over the Internet/Internet to all students in higher education institutions at any time anywhere medium. A centrally sponsored scheme has been envisaged for upliftment. This is expected to lead to substantial interventions in the form of increasing the Gross Enrollment Ratio (GER) in higher education and ensuring access and quality in higher education. The new National Education Policy under its aegis has created virtual labs, open source and access tools, virtual conference tools, talk-to-teacher programs, and non-invasive blood glucometers through Information and Communication Technology (ICT) and catalyzed laboratory experiments. There are two important components of a DIE mission, i.e. content creation and provision for access tools for institutions and learners. It aims at bridging the digital gap, i.e., to bridge the gap in the skills of urban and rural teachers/students in the higher education sector in the use of computing devices for education and learning, and to empower those who were hitherto untouched by the digital revolution. It focuses on pedagogy appropriate for e-learning and provides online availability of teachers to guide and mentor learners by facilitating online testing and certification, performing experiments through virtual labs, and providing education satellites (Education Satellites). EDUSAT intends to focus on the appropriate pedagogy of e-learning by empowering teachers to make effective use of Direct-to-Home (DTH) methods.

The Contribution of Current Innovative ICT to Pedagogy:

Information and communication technology is used for the tasks that are used to transmit, store, create, display or exchange information by electronic means. This broad definition of information and communication technology includes all radio, TV, video, DVD, telephone (both landline and mobile phones), satellite systems, computer, and network hardware and software; Apart from this, services and devices related to these technologies, such as video conferencing, e-mail and blogs, etc., also come under the purview of ICT.

There is a need to incorporate modern forms of Information and Communication Technology (ICT) in education to realize the educational objectives of the Information Age. To do this effectively, education planners, principals, teachers, and technology experts will need to make several decisions in the areas of technology, training, financial, educational, and infrastructural requirements. For most people, this task will be as difficult not only as learning a new language but as teaching in that language. Teachers, planners, researchers, etc., all seem to broadly agree that ICT has the potential to make a positive and significant impact on education. What is still being debated is the exact role of ICT in education reform and the best ways to harness its potential.

Invention drawn from around the world to demonstrate policies, strategies, and practical steps for the use of technology, Success covers the following topics. such as educational TV, educational radio, web-based instruction, libraries for discovery, practical activities in science and technology, use of media, technology for teacher preparation and career-related training, technology for design and data management, technology for school management, and technology studies in various fields including instructional material, audio, visual and digital products, software and content are communication channels, media, educational websites.

A portfolio is intended to be a complete collection of selected student work that provides the student and others with a description of the student's efforts and achievements in one or more areas. Portfolio types include Learning Portfolio, Credential Portfolio, Showcase Portfolio, Dossier Portfolio, Training Portfolio, Reflective Portfolio, etc. E-portfolio refers to certificates (artifacts) stored and preserved in digital form that represent and reflect the hard work, creativity, and collaboration of an individual. The benefits of an e-portfolio include the development of skills of information and communication techniques in the students, information of the student's past knowledge, continuous cumulative record of student's achievement, help in self-assessment of the student, etc. Google Sites is one of the main tools for building an e-portfolio. Evernote, Word Press, etc. E-learning is a form of computer-based student-controlled instruction, which generally refers to the use of information and communication technology systems in teaching and learning. Many forms of e-learning are becoming popular in the present time and for this many other terms such as online learning, virtual learning, and web-based learning is used. The types of e-learning are individual self-paced e-learning online, individual self-paced e-learning offline, synchronous (group based) e-learning, asynchronous (group based) e-learning, etc., and many more. The service providers providing the service of learning are Coursera, edx, Alison, etc.

Moodle (Modular Object-Oriented Dynamic Learning Environment (Moodle)) Moodle is a learning management system or software primarily available within a free, open-source educational resource that is used for e-learning or online learning. Its broad form is Modular Object-Oriented Dynamic Learning Environment. Moodle's development is credited to Martin Doziam, who created it to help teachers build online courses. The first version of Moodle was made available on 20 August 2002. The word silent was first used in 2008 by Dave Cormier. Dave for the course called Connectivism and Connective Knowledge, a free online course developed by George Simon and Stephen Down. Mook is a completely internet-based open learning system designed for a large number of participants. Teaching, education, and research material produced in any medium that is available digitally or otherwise in the public domain or is released under an open license and is available without cost and without restrictions Or it is an Open Educational Resource (OER) that provides freedom to use, adapt and redistribute by others with limited restrictions.

Rubrics means “the marking guide used to assess the quality of students. Ruby Star, RCA Campus, Google Force, etc. are the service providers of building rubrics. Today these innovative ICTs are being used for education in many countries including India.

Information and communication technology (ICT) in education is the method of education that uses information and communication technology to support, enhance and optimize the delivery of information. Research around the world has shown that ICT can lead to better student learning and better teaching methods. The use of ICT leads to adverse economic consequences, social consequences, loss of earnings, and loss of self-esteem and status among the people in society. Less personal contact: Working from home, which is considered an advantage of ICT, also hurts the individual. Information communication technology (ICT) tools contribute to high-quality lessons because they help increase student motivation, connect students to multiple information sources, support active in-class and out-class learning environments, and facilitate

instructors. Ability to allocate more time. The opportunities for collaboration and communication have also been expanded by technology. The walls of classrooms are no longer a barrier as technology enables new ways of communicating, learning, and working collaboratively. Technology has also started changing the roles of teachers and learners.

By integrating technology into education, teachers aim to generate pedagogical change and address fundamental issues that affect learners with special needs. Therefore, technology can be seen as both a tool and a catalyst for change. Today, technologies used to improve and facilitate learning can be found everywhere. ICT is considered a powerful tool for educational change and improvement. Several previous studies have shown that appropriate use of ICT can enhance educational quality and link learning to real-life situations. Through ICT, learning can happen anywhere and anytime.

CONCLUSION

There should be a need assessment before evaluation in the creation and participation of teacher professional development activities, these activities should be regularly monitored and assessed, and feedback loops should be established if professional development is to be effective, and targeted to the needs of teachers. Are. Continuous and regular help is essential to help in the professional development of the teacher and this can be provided through the use of ICT. A variety of changes must be made to implement adaptation to teacher use of it. Changes in teaching methods, changes in curriculum and assessment, and granting more autonomy to schools help adapt to ICT use. With enough enabling factors, teachers can use ICT as 'constructively' as their pedagogical philosophy allows. If ICT is to be used effectively, teachers should have adequate availability of working computers and should be provided with adequate technical support. Adequate time should be given to teachers to develop new skills, find their uniformity in their existing teaching methods and curricula, and plan the additional lessons required. While the introduction of ICT as an aid to education is often part of a larger change or reform process, knowledge of the successful use of ICT must be promoted and disseminated.

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THE STUDY OF THE RESEARCH AND EMERGING TRENDS IN HUMAN RESOURCE DEVELOPMENT

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ABSTRACT

The purpose of human resource development research is to make the best use of human labor, which also includes manpower development. Manpower means all types of organized and unorganized workers, employers and supervisors, managers, and employees. This word is very close to labor, all the persons who are engaged in work or are capable of doing work but are not yet employed, are called human resources. Human resource development planning refers to a program in which the acquisition, development, maintenance, and utilization of organization employees is possible by the employer. Evaluation of human resources, its forecast and discovery of sources of achievement, etc. is also the subject matter of human resource development. Just as economic planning aims at the productive use of resources judiciously, similarly human resource development research is the judicious use of manpower. Today the meaning of human resource development is getting wider. Human resource development is a method in which planned action is taken to make available work for all sections and at all levels of the working people and to make full use of their power. The purpose of this research paper is to study research and emerging trends in human resource development.

Keywords: Human Resource Development, Research, Emerging Trends, Organizational Effectiveness.

DATA COLLECTION METHOD USED FOR RESEARCH:

Data for the research paper has been collected from secondary data.

OBJECTIVE OF RESEARCH:

- 4) To study the research in human resource development.
- 5) To study the emerging trends in human resource development.

INTRODUCTION

In the modern era, when workers and workers are becoming aware of their interests and human problems and aspirations are increasing, the importance of human resource development is also increasing. In the era of intense competition, maximum profit can be achieved with minimum efforts only through proper human resource development. Human resource development is a new concept that is used at two levels, micro and macro, where by its use at the first level, it means the development of personnel and managers in an organization so that both quality and production increase. There at the second level it means all-round development of the entire population of a nation.

Human resource development prepares the personnel to face the exigencies and challenges of work in the present and changing future. Human resource development protects the personnel from being unsuitable and unwanted for the organization and work. It develops creative abilities and talents in the personnel. Human resource development prepares personnel for higher-level functions. It imparts basic talent and knowledge of human resource development to the newly recruited personnel. It develops competence in the personnel for the next higher post. It assists in overall quality management. The purpose of human resource development is to develop individual and collective morale and to establish a sense of responsibility, cooperative attitude, and good interpersonal relations. It helps in the integrated development of personnel. It helps

identify the strengths and weaknesses of the personnel, which improves the performance of both the personnel and the organization. It creates an environment in the organization where mutuality, trust, cooperation, and openness flourish. Due to this such opportunities are available to the employees where they can freely use their talents. It provides valid facts about personnel functions like placement, training, selection, promotion, etc. It emphasizes information and guidance by higher authorities to subordinate employees to improve their performance.

At the same time, it leads to organizational effectiveness. Provides facilities for the expansion of ideas of senior managers inside and outside the organization. To increase the capabilities of the organization, to create an environment for individual and organizational objectives, to make the employees recognize their talents, to supply personal self-reliance, flexibility, and discipline, to accept challenges, tolerance, etc. Development is an important subject for personnel and organization.

In short, it can be said that, in today's competitive and challenging times, no organization can sustain its development and existence without the development of its personnel. Although personnel policies help keep the morale and motivation of the personnel high, these efforts alone may not be sufficient in making an organization dynamic and taking it to higher heights. Personnel capacity should be continuously sharpened and it should be used continuously, for which research is necessary for human resource development activities and programs that improve the work life of the personnel and provide them with the right communication, and right work directions. As a result, the creativity of all the personnel comes out in full swing. Due to this the employees develop collectively and recognize their weaknesses and strengths, as a result, there is an increase in the performance of both the personnel and the organization. Human resource development research can be useful in many ways in any organization and nation.

The Research and Emerging Trends in Human Resource Development:

The importance of human resource development has been accepted not only by various organizations but also by most of the nations of the world. Although this is a new topic, every nation is focusing on HRD activities at both narrow and broad levels to enrich its human capital. In the future, new trends are becoming visible in the role of this subject as it is being accepted that people are the focal point of profit with great potential. Management is responsible for converting human resources into human capital in which HRD plays a central role. The HRD managers have a special responsibility to perform for increasing production, efficiency, and profit. The state, public policy, labor unions, labor laws, and the professional skill of the managers themselves put them in the interim hours of power and decision-making. Changed mixed workforce, changed personnel values, changed personnel demands, and changed demands of government and society have given new direction and roles to HRD and HRD Managers.

The low habits of the personnel have also presented a new role before the HRD. Such as employee alienation, boredom and job dissatisfaction, low motivation and increasing competition, production behavior, increasing employee aspirations and degrading institutions, end of mechanization and change in ideas and attitude of labor unions, etc. There are feelings of suspicion, opposition, and alienation in the labor movement. The reason for this is the declining labor force size in the organization, the liberal attitude of managers towards workers, a happy workforce, and good working conditions have reduced the importance of labor unions.

Changing new interests of the personnel also affects human resource development research such as - Changed work week and work life, organization's design, career planning, and development, salary, and benefits, additional use of workspace, flexible working hours, and flexible organization) such as a bell, honeycomb box, and flexible salary and dividend, etc.

Although HRD itself is an ancient development, development is always associated with change, so within a short period, new trends are emerging in HRD also.

The last decade has produced two growing trends in the patterns of global science and technology systems. One concerns the internationalization of R&D and the second the increasingly global nature of innovation. The former refers to foreign direct investment, foreign R&D cooperation of transnational corporations (TNCs) and other companies, and increased international cooperation through joint ventures and other networking mechanisms. The latter is a recent trend related to the innovation network of companies spread across homes in overseas locations or home country locations. It is also a product of R&D and technical services, and business, and knowledge process outsourcing which are outsourced and sent to other institutional and organizational operations in overseas locations.

Many innovation chain network operations or contracts have been done for foreign traders that create new business opportunities. The pursuit of the corporate model of R&D within the home country within the physical boundaries of the corporate firm is rapidly transforming. It is widely accepted that person-latent technology or S&T human resources are critical to technological and economic development. Planning and foresight of S&T human resources have become more important in the era of globalization and rapid technological change. This requires a special focus on science policy studies as there is a wide knowledge gap that is focused only on the supply side of human resources neglecting the demand side. In the context of increasing competition and complexity of the innovation process, more research efforts are needed.

To meet new challenges from worldwide distributed technology innovation, the information age, and service development, a holistic approach is needed to integrate key strategies to achieve sustainable development through technology innovation and human resource planning. More future research is expected to produce a strategic and holistic model of human resource development to integrate culture, organizational change, and high technology. Research topics that will be covered in this broad area include the Indian diaspora in science and technology, including the mobility of scientists; Demand and supply of skills in high technologies including ICT and manufacturing sectors; and brain drain, brain benefits, and cerebral circulation of professionals in the S&T fields.

By the time technology or software is launched, there is something new to take its place. Companies are placing more and more emphasis on the techniques of their employees. Project managers must develop their technology, and also understand when to use which digital technologies, and whether a certain technology should be used. Mismanaging or using automation software can have devastating effects on your projects, cost, time, and budget. Use technology that benefits you. By doing your research, you can balance your technology quotient and management skills. Research can be done based on best lists, customer reviews, testimonials, analytics reports, and more.

An important theme among emerging human resource management trends is whether to reduce change, embrace change or accelerate change. In 2022, increased competition and smaller profit margins mean organizations must always optimize and adjust their processes, workflows, and competencies. Managers must effectively manage change to complete projects and promote their organizations.

The world order is changing dramatically and is in the process of complete transformation. Yesterday's impossible things became possible today and today's impossible things will be possible tomorrow. That is why it is said that change is the only permanent aspect of nature. In the present context managing people (HR) is not only an important task but it also lies in many challenges. The concept of self-reliant nations is losing importance and the concept of the Global Village is emerging. Management of organizations is bound to deal with radical change

after carefully analyzing the real challenges keeping in view the new technologies and practices from the global perspective.

The emerging challenges of HRM are affecting modern organizations as well. The importance of human resource development research is increasing due to this. This research will prove helpful in dealing with these emerging challenges.

Managing people (HR) in the present context is not an important task as it is inherent in many challenges. Competitive challenges include globalization, technology, change management, maintaining human capital, responding to market forces, and cost control. Competitive challenges arise for employees affected by diversity, age, gender issues, job security, educational level, employee rights, privacy issues, work attitudes, and family problems. Many companies are seeking to develop and prosper business opportunities in global markets as domestic markets shrink. Globalization is the movement toward opening up foreign markets to international trade and investment. The impact of globalization on business and HRM is considerable. Cooperation with foreign companies as well as competition has become an important focal point in the current business context. Human resource managers today must balance a complex set of issues relating to different geographies, cultures, employment laws, and business practices.

The impact of advances in information is so dramatic that organizations are changing the way they do business. Internet access to do business is so widespread in organizations both large and small that e-commerce is increasingly becoming a challenge. As computer-mediated work style is in 'virtual' office, in which people can work from home or any external spot. Advanced technology is needed to reduce the number of jobs that require fewer skills and increase the number of jobs that require higher skills. Today knowledge-based training has become very important. For this human resource development research has become necessary.

The major forces driving change in organizations as well as HRM are globalization and technology. Business success in the current business scenario mostly depends on how the changes are managed. Companies are successful because they develop a culture that keeps going all the time. In a highly competitive business environment, change management is a core competency of organizations. Changes can be reactive, proactive, or both. Reactive change is one where the change occurs after the performance has already been affected by external forces. In the case of proactive change, change is initiated to take advantage of environmental opportunities. The main thrust of the change management program is to involve employees in establishing continuous innovation and excellent customer service. Most companies report at least one change initiative to HRM. Whenever a change occurs, HR managers have to focus on responsibilities, work assignments, and work processes. Human resource managers play a vital role in overcoming resistance to change through effective communication and mentorship. They have high responsibilities to envision the future, communicate the vision to employees, set clear expectations for performance, and develop the ability to execute by reorganizing people and other resources.

Human capital is the knowledge, skills, and abilities of individuals who are of economic value to the organization. Since human capital is intangible and elusive, it cannot be managed by jobs, products, or technologies. This is because human capital is owned by the employees and not by the organizations. Management of human capital is extremely important because if valuable employees leave an organization, they take their human capital with them and any investment in training and development is lost. Therefore, success increasingly depends on an organization's ability to retain and manage human capital. The role of human resource development research is important in maintaining and managing human capital.

Managers must continue to develop superior knowledge, skills, and experience within their workforce to build human capital. Staffing programs should focus on identifying, recruiting, and recruiting the best and brightest talent available. Effective training on the job should be opportunities for skill growth and development. Managers must provide development assignments and ensure that their job duties and requirements are flexible enough to allow for growth and learning as highly valuable intelligence is tied to abilities and abilities learned from experience. Talent should not be left untapped. Efforts should be made to empower employees and encourage their participation to make full use of available human capital. Human resource development research is needed in this task.

CONCLUSION:

Human resource development has not yet been taken seriously in India. The result of this is that the public servants working in the government machinery are neither dedicated and committed to the work nor are efficient nor sensitive towards their responsibilities to the organization and the nation. It is an important need to make the personnel sensitive and confident with the objectives of the organization, but the gap between authority and facilities is very deep and wide between the high officials and the lower employees. The sense of trust and dedication is not being reflected at any level, along with huge disparity in the minimum and maximum pay scales, as well as many other types of discrimination also affect the functioning of the lower-level workers. To overcome these problems, it is necessary to accept the modern concept of human resource development research.

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THE UNFINISHED STRUGGLES OF BROKEN BEAUTIES: A COMPARATIVE READING OF SELECTED POEMS

Parvathi T. S

ABSTRACT

The paper intends to the comparative study of the selected poems of the Dalit women writers Meena Kandsaswami and Vijila Chirappad. The paper delves in the issues of plight of the Dalit woman who is always reminded that she is nothing but only a woman before the phallocentric world. The plight of women becomes more pathetic when a women is a Dalit, then she has to face of multiple marginalisation who has no right to stand up against marital rape, abuse, violation of her fundamental rights both in her personal or political domain. The paper discuss how Dalit women are suppressed to the victim of multiple marginalisation and attempt to articulate and fore ground the silenced and subjugated Dalit as an oppressive society along its consequential voices of protest.

Keywords: Untouchability, Casteism, Gender, Oppression, Subjugation, Dalits.

INTRODUCTION

One of the most unique features of Indian society is considering caste as the status marker. For centuries Indian society has been the most hierarchical among the known civilization. In the Indian sociocultural context 'Dalits' are considered as untouchables. Dalits are marginalized at the very bottom of the social stratification. They were not even included in the caste system initially and they were oppressed by the upper castes. Physical contact with the untouchables is considered to be polluting and worse, even today their shadows are considered offensive. Dalits have been victimised through the structural hierarchy of caste that perpetuates the ethos of caste and maintains the segregation of power. Dalits are oppressed, exploited, discriminated against and methodically erased through graded inequality at every level. So, there is hardly any space for Dalit women either in public or private sphere. The power dynamics existing between gender and caste is molecular, complex and diverse and as a result it is extremely aggressive. Within the caste hierarchy, gender relations vary among various castes. That is the power dynamics work differently in the male and female relationship in different castes. In the first decades of the 20th century, few upper caste women pointed out that in a patriarchal society every space sanctioned to men is linked to power and women's life is confined within the realm of domesticity. Even as they were subjected to gendered oppressions because of their high caste status they could exercise limited rights. This made the upper caste women more powerful than Dalit men and Dalit women. Dalit men, as a part of their exploitation by 'upper' caste, also face taunts regarding their masculinity and honour which results in their aggressive behaviour towards Dalit women. So Dalit women's experience of patriarchy is unique and more intense from upper caste or savarna women. Because of Brahmanical exploitation at the hands of upper caste people, Dalit men behave aggressively and oppress 'their' women, who are most vulnerable in the caste- based social structure. Dalit men's practices of patriarchy are not humble than that of the Brahmin or other savarna men.

The plight of Dalit becomes more pathetic when a Dalit is woman. Dalit women for centuries have been subjected to multiple marginalisation. They remain helpless, ignorant, exploited and oppressed. They are the victims of the worst kind of patriarchy, feudalism, casteism, corruption and insensitivity of the Indian society. The literature by Dalit women largely deals with issues of violence and oppression based on intersections of class, caste, and gender. Women's bodies, sexuality, and reproductive choices are linked to the ideological hegemony of the caste-gender nexus in India, with marriage and sexual relations playing crucial roles in maintaining caste boundaries. Often, the ways in which women manipulate their multiple, interlinked identities as

women, Dalits, workers and homemakers to resist control over their bodies, negotiate conjugal loyalty and love, and construct a sense of selfhood is missed in the analyses. Dalit women's narratives that reflect multiple concerns and dilemmas about marital choice and violence, generating in the process a deeper understanding of agency, voice, and gender relations, as fluid, dynamic, and intersecting in response to changing experiences, positionality, and subjectivities. In the southern part, women writers like Shivakami, Bhama, Sukirtharani, Meena Kandaswami, Gogu Syamala made a significant contribution to Dalit literary discourse. They expressed their notion of Dalit in their essays, poems, novels, autobiography etc. This paper emphasis on the study of life, struggle and harsh realities faced by the dalit women in women poetry on the basis of Vijila Chirappad's anthology of poem Copied Notes and Meena Kanthasamy's anthology of poem Ms Militancy and Touch.

CASTE AND CLASS DISCRIMINATION

According to Ambedkar it was Manu who put forward the Chathrvarna system in the society which was based on Karma. The society should be divided in to four classes: the Brahmins, the Kshatriyas, the Vaishyas and the Shudras. There was no social equality among these classes. Thus, an individual's identity is determined by caste. The Dalits were outside the caste system. They were denied of the right to education and dignified life. They are expected to lead mean life, doing inferior and menial works like sweeping, cleaning working in fields etc. and remain servile to the privileged class. They were assigned the duties of serving the so-called upper caste people. In the poem "Eklavya", Meena Kandasami revisits the myth of Ekalavya, the son of Nishada king Hiranyadhanu. Ekalavya was a skilled archer but he had to pay his thumb as guru dakshina to gratify the will of guru Dronacharya who had refused to teach him and humiliated him for his Nishada or Kaattaala origin. His right thumb was amputated just because he would not become better archer than Arjuna. The Indian caste system is a social structure where social roles like one's profession become hereditary. These kinds of discrimination happened not only in the ancient period but in the present scenario which can be seen in the Vijila Chirappad's poem She Who Flew Afore.

In our home

There is no TV

No fridge

Neither mixer

Nor grinder 24

No LPG

Not even an iron-box.

Yet my mother knew

How to operate these

Much before I did.

Because...

Like in Madhavikutty's stories and the novels of M.T.

She is Janu-

The servant. Tr.by Shiji(603)

The poem She Who Flew Afore describes about the pathetic condition of women in a Dalit family. They don't have a good kitchen or house but still her mother can work all kind of

kitchen equipment because she is the servant in high class houses. Upper class and caste is subjugating or avoiding the lives of low caste. The representation of Dalit community in the literary text. The critical reading of some prominent works of Madhavikutty and M.T. Vasudevan Nair explores the representation of Dalit women by the common upper-class aestheticism. The representation of these women in the literary texts present the Dalit as an uneducated individual doing menial tasks for low wages in a prejudiced society and we wouldn't come across a well-educated or well-settled Dalit. He/she would either be a servant of the upper caste household. They are expected to lead mean life, doing inferior and menial works like sweeping, cleaning working in fields etc. and remain servile to the privileged class. Most of the upper caste writers are biased towards Dalit women. They are portrayed as the victims of the lust of the higher caste men and never as rebels to fight against the injustices perpetrated on them. Even in the writings of the progressive writers like Mulk Raj Anand, Premchand and so on-Dalit women are either molested or raped by the upper caste men. By depicting such pictures, the writers gained sympathy for the victims but such routine kind of treatment is not enough. This is how the caste discrimination limits the agency of Dalit women as nothing and merely portray Dalits as people hailing from a lower caste group and as people destined to do certain jobs only which wouldn't help them climb the social ladder.

SEXUAL EXPLOITATION

Chirappads poem While bathing in the pond (Kullakadavil Kullikumbol) she discusses about the concerns of public bathing and the patriarchal scopophilia, where a Dalit woman is considered merely as a body and an object to gratify the sexual pleasure. she says :

While bathing in the pond

Never say gossips

Ears are hidden

In the bushes

Don't open your body

His hooked eyes will go down

To your nakedness

With menstrual blood

Colour the pond

He will close his eyes,

You can feel it Tr. by me

Similar Kandasamy in her poem named "Shame", explores the life of women after is sexually abused by a group of men. This victim will not even get the sympathy of the people and she was a Dalit woman. Moreover, this victim is the one who becomes a victim again.

"Public's prying eyes

Segregate her-the victim.

But, the criminals have

Already mainstreamed-

Their caste is a classic shield." (Anand)."

In our society physical and mental exploitation of the marginalised section of the is common. Most shocking aspect is that the culprits involved in these sexual assaults find easy escape

because of their high class and caste status. In the poem 'Shame' the poet depicts how an untouchable girl becomes the victim of gang rape is denied of the basic fundamental rights. The upper caste status the rapists made them free from the crime and the innocent and helpless girl suffers humiliation and irrecoverable pain and ultimately commits suicide. Dalit women works in the public place unlike upper-caste women. There has been a customary sanction for sexual gratification for the upper caste men. Dalit women are also under the control their men over their sexuality and mobility. Dalit men who are considered as inferior to non-Dalit women in their caste status are hapless to protect their women from upper-caste men because of the lack of social power. The lady who was gang raped would not have any option to cope up with the sorrow other than to take the extreme step in her life. The caste is what makes her more vulnerable to this kind of brutal harassment and would make her fall prey to the sexual crimes.

GENDER DISCRIMINATION

The kitchen linen, rock like never ever allowed

To wash and rise, holds close

All dirt.

Percolate.

.....

My chirpy little girl,

Turned rock like

No more sings

In another kitchen Tr.by Dr. Lakshmi (5)

In this simple and meaningful poem, "kitchen rags" Chirappad reveals the exploitation and discrimination faced by women in the name of gender. "kitchen rags" symbolise the sufferings of women who are confined to the four walls of the kitchen. The poem strongly expresses the writer's protest against social and gender injustice. The filthy kitchen rags symbolize the Dalit women. They have become hard like rocks because of the dirt. Nobody washed them once. The dirt has made them rock-hard in consistency. Nobody ever gave them a wash. In the patriarchal world women are reduced mere in to physical entity. Similarly, Kandasawamy in her poem Backstreet Girls address the problems regarding the rights and freedom of women which is suppressed by the moral police. The poem ends with a note. "We (women) are not the ones you can sentence for life." Ms. Militancy (14) This is the freedom Kandasamy wants to achieve for her people. This poem shackles the Brahmanical patriarchy by choosing their own profession according to ones will.

CONCLUSION

Dalit women in India are the most victim group with different life situations. The multiply marginalized status as a woman, and a Dalit make them a separate category, 'a unique social organism,' whose experience of being a Dalit woman cannot be understood by locating a 'Dalit' or a 'woman,' independently. On the other hand, it must include the interrelations and interactions which generally, reinforce each other. These women have unique lived experiences as they endure the intersectional oppressions of the two oppressed groups – 'Dalits' and 'women,' both oppressed on account of their birth. So the situation of Dalit women needs to be understood simultaneously from the essential perspective of women and that of Dalits. Hence, a politics of difference from mainstream Indian feminism calls for explorations of perspectives and narratives of these multiple oppressed women. When we compare Kandasamy's and Chirappad's poetry both of them discussed same kind of issues in different styles. The styles are quit different for each of them. When we took Chirappad's writings her way of approach is very

simple but complex issues are discussed. Chirappad tried to compare mostly Dalit women miseries to the day to day things in our life. The title of the poems reveal that. She compared Dalit women life to other things which were never noticed in life. Kitchen linen is compared with Dalit women life, wasteland is given to describe Dalit servants, through the Autobiography of a Bitch she draws the real life of Dalit women. So in all her poems she presents minute things in a very different and catchy way. The poems of Kandasamy's anthologies *Touch* and *Ms Militancy* reveal the patriarchal and casteist hegemony at work in contemporary society, espoused and legitimized by the Hindu scriptural texts, which thereby are seeped into the everyday lives of the Dalits. she subverts the Hindu and Tamil myths and legends, which are part and parcel of Brahminism founded in the Hindu scriptural texts, to expose their regressive core by making feminist retelling of these myths. In her poems like *Backstreet Girls*, *Dead Women Walking*, *Fire workers*, *Princess in exile* etc she quoting mythical characters. she is revisiting the characters in a Dalit feminist view point. With the turn of the twenty-first century an indelible trail of women writers can be found. The once muted female sounds became so loud that the androcentric world cannot ignore their presence.

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THE WAY OF GREEN MARKETING IN INDIA

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ABSTRACT

“One Reason To Leave The World A Better Place.... Do You Really Need A Second??” Green marketing implies promoting of the items which are climate amicable. Green marketing is a cutting-edge idea it is created because of unsafe impact on climate. Green marketing is important since, in such a case that the rising climate issues from one side of the planet to the other. India is non-industrial nation and in India too green promoting catches the consideration of all. The primary point of the paper is figure out the reason and difficulties of green marketing. This paper utilized illustrative exploration plan and auxiliary strategy for information assortment. Results shows that motivation behind development of green advertising are government and serious strain, social obligation, customer’s needs, climate security, long run endurance and so on. Difficulties of the green marketing are significant expense, less shopper mindfulness, cost touchy clients, less trust and so forth. The end in the review is green marketing is a new idea. Green marketing needs high endeavours from all the side because in India green marketing is on beginning stage, however green marketing is fundamental for providing the clean and spotless climate for next generation.

Keywords: Green marketing, environment, purpose and challenges

1. INTRODUCTION

"Green Marketing" and "Environmental Marketing" terms appear frequently in the popular press. The new trend and most modern concept of this era is Green Marketing. This is green revolution in market with marketing activities. The environment issues always influenced the activities of business and its growth. This is right and true way of marketing because if society concerned more about natural environment then business has start to modify their attitude and behaviour to aware and address society with “new” concern. In all over world mostly countries adopt this concept quickly to save earth. Business houses taking those steps which are environment friendly; like to reduce the plastic consumption, recompose wastage, reuse waste material as a raw material for another product. After taking these steps even we are not save the earth but in other side it’s helpful to save the health of people. In future green revolution became the part of organization and its activities because an organisation made by society, made for society and made in society so to save environment and society is key responsibility of a business firm. Because a business have CSR (corporate social responsibility) and the safety of environment is one of them, then some business houses include the EMS (Environment management system) WMS (Waste minimization system) and some other environmental issues in their organizational activities.

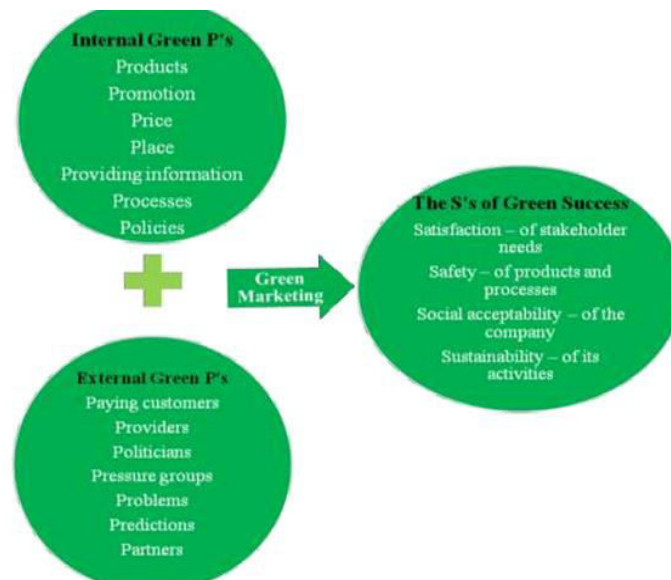
As an example the Federal Trade Commission and the National Association of Attorneys-General in the United State have developed an extensive document to examining the issues related to green marketing [FTC 1991, NAAG 1990].

Green marketing is very popular term in the today competitive environment. Green marketing means marketing of the products which are environment friendly. Green marketing incorporates a broad range of activities including product modification, changes in production process, sustainable packaging as well as modifying advertisement. In the today scenario globalization green marketing is very important factor of success. Developed countries, developing countries and underdeveloped countries are using green marketing to protect them from harmful effect of

chemical products. Green marketing reduces the harmful effect on environment and more safe for the human being. Green marketing comes into existence due to various reasons such as increasing acid rain, depletion in ozone layer, degradation of land, green house effect, increasing pollution etc. Green marketing also knows as environment marketing, ecological marketing, sustainable marketing etc. Terms like Phosphate Free, Recyclable, Refillable, Ozone Friendly, and Environmentally Friendly are some of the things consumers most often associate with green marketing.

Green marketing is for “Go Green” in product and production process which is environment safe plus makes profit for the organization by satisfying consumers (Bhardwaj, S. and Tanwar, S.). Green marketing is totally a new concept with new approach. Green marketing is also facilitating a new segment in market segmentation named green consumers who prefer green products. There is 4’P of green marketing: Green Product, Green Price, Green Promotion and Green Place.

Famous organizations are even supporting green marketing in India like Infosys, Wipro, Maruti, Tata, Johnson and Johnson, Hero Honda, New Surf Excel, Life Boy, McDonald’s, Phillips etc. In India government is putting pressure on organization and consumer to use paper bags instead of plastic bags which are harmful for the environment.



1.1 REVIEW OF LITERATURE

Bhardwaj & Tanwar (2019) studied the opportunity and challenges of green marketing. The main aim was research about the concept of green consumerism. They found that consumers from Asia-Pacific, Latin America, and Middle East/Africa are ready to pay extra for green products. By behaving green, they will find an opportunity to enhance products performance and strengthen their customer’ loyalty. From loyal customers a higher price can be commanded comfortably. A small effort from each part of the society, will save the environment from being degraded.

Nadaf & Nadaf (2014) studied the challenges in green marketing in India. The main aim of the paper was to evaluate challenges and strategies for green marketing in India. This paper used secondary method of data collection. They found that government, consumer and competition were the main reason of emergence of green marketing in India. They concluded that high cost, less consumer awareness, less creditability, misleading claim were the reasons for challenges in the green marketing and better management, control, technology and good marketing plan were suggestion for the better management of green marketing.

Sen (2014) studied about the green marketing impact on consumer buying behavior. The main objective of the paper was to evaluate impact of green marketing on consumer purchasing and challenges under it. Data was collected through primary and secondary source. This research was performed in Kolkata. Explanatory research design was adopted in the study. For selecting sample convenience sampling design was adopted. Total 100 respondents were selected as sample under the study. Mean, S deviation, percentile and t- test were used to analyze the data. They found that consumer were ready to adopt green products even at high price to save the environment. Better design, better management and better adoption were the excellent concept of green marketing.

Singal, Garg & Singla (2013) studied about the opportunities and challenges in the green marketing. The main aim of the paper was to find out opportunities and challenges in green marketing in the context of India. Data was collected through secondary method of data collection. They found that green marketing challenges were new concept, need for standardization and need for patience. They suggest that know your customer, be transparent, empower consumer and reassure customer were the ways of improvement in green marketing.

Singh & Pandey (2012) studied the topic “Green marketing policies and practices for sustainable development”. The main aim of the paper was to find out the influence of green marketing on customer satisfaction. This paper was based on secondary method of data collection. Descriptive research design was used under the study. They found that consumer perception changed a lot from the past. Customer want environment safe products and even they were ready to pay premium price for the product which was less harmful to the environment. They concluded that green marketing open the door for new market segmentation called green consumer. Company started segmented the market on the basis of customer who used green products.

2. RESEARCH METHODOLOGY

2.1 OBJECTIVES OF THE STUDY

The main objectives of the study are:

- To analyze the purpose of emergence of green marketing in India
- To find out the challenges of green marketing in India

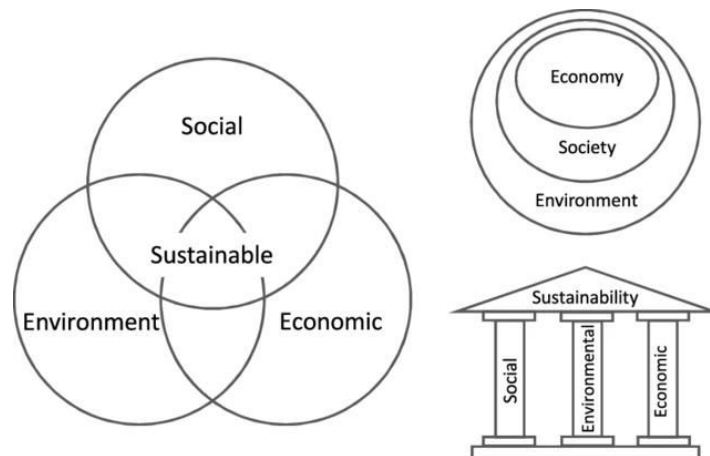
2.2 RESEARCH METHODOLOGY

Any research work is incomplete without a proper methodology adopted for the research. This paper is based on conceptual work so falls under the category of descriptive design. Use of secondary data has been made to conceptualize this paper which is almost the result of internet sources. For review purpose, previous published research papers, magazines, reports, websites have been taken into consideration.

3. ANALYSIS AND INTERPRETATION

Objective: 1. To analyze the purpose of emergence of green marketing in India

Everything which exists in the world is off course for a purpose. Green marketing emergence is some special purpose such as:



- **Social Responsibility:** green marketing is social responsibility and it's under the concept of EPR (extended producer responsibility). It is social responsibility of every producer and even consumers also to save the environment from the harmful effect of chemical products.
- **Government Pressure:** Indian government is also pressurizes the companies to develop green products and make their production process environment friendly. Government is also promotes green marketing to attract consumers.
- **Competitive Pressure:** Globalization increase the pressure on the organization to provide competitive product. Firms have face competition not with only domestic firms but also with the global firms.
- **Profit in the Long Run:** existence and profit in the long run is possible through the green marketing.
- **Environment Protection:** Protection of the environment is necessary for future survival. Green products are environment friendly so it reduces the harmful effect on environment.
- **Better Standard of Living:** Adoption of green marketing leads to better standard of living of the human being.
- **Good Health:** Green products are good for health because it is produced by organic methods. People want products which are good for their health.
- **Protection:** There is need of protection of land, air, water, wildlife etc which is possible through green marketing.
- **High Initial Cost With Low Cost in Future with More Profitability:** Green marketing installation includes high cost because of research and development, technology adoption but the cost reduce in future and this will lead to high profit in future with long term survival.
- **Opportunities:** Green marketing consider as great opportunities for the future.

Objective: 2. To find out the challenges of green marketing in India

Green marketing is a new concept, and a new concept is not easily accepted. These are some challenges in the field of green marketing:



- **Requires huge investment:** For green marketing there is need to invest a lot in research and development, product development, adoption of new technology. Material purchased for production is costly. Renewal and recycling is not easy need high technology which cost is very high.
- **Price sensitive consumers:** In India consumers are price sensitive they are not able or maybe they don't want to pay high price for green products.
- **Less awareness of consumers:** Green marketing is a new concept and mostly Indian people are unaware of the green marketing.
- **Initial Concept:** Green marketing is on initial stage and there is lot of development under it.
- **Promotion Tools:** Green marketing is a new concept and it is important to use various kinds of promotion tools to aware the people about the existence and importance of green products. They have to use multiple tools like advertisement, personal selling, sales promotion, social media etc.
- **Misleading and Availability of Imitate Products in the Market:** There is lots of firms which are selling their products by advertising them as green product but they are not green products even consumer pay high price and after that they cheated.
- **Problem Of Standardization:** In India products are not follow the international standard so consumer don't trust on their originality.
- **Poor Marketing Plan And Implementation:** Marketing plan and implementation is poor in India which is major cause of failure of green marketing in India.

4. CONCLUSION

4.1 Future Scope

Green marketing should not neglect the economic aspect of marketing. Marketers need to understand the implication of green marketing. If we think customers are not concerned about environmental issues or will not pay a premium for products that are more eco-responsible, then we should think again. We must find an opportunity to enhance products performance and strengthen our customer's loyalty and command a higher price. Green marketing is still in its infancy and a lot of research is to be done on green marketing to fully explore its potential.

Green Marketing has a wider scope in the current scenario because of its cost effectiveness. In green marketing activities the focus is on recycle and reuse of materials. The firms use technologies for reduction of waste materials and also for reutilization of materials. Green

marketing is an excellent concept. There is some challenges in the way of green marketing but with some strategies overcome from these challenges is not too hard. In India, around 25% of the consumers prefer environment friendly products, and around 28% may be considered health conscious. Therefore, green marketers have diversified to fairly sizeable segment of consumers to cater to. Many companies have started realizing that they must behave in an environment friendly fashion.

4.2 SUGGESTIONS

- **Understand Customers:** An organization must be aware from the needs and wants of consumers. Organizations produce the product according to the customers demand and the price they ready to pay.
- **Need of the Management Support:** For the success of green marketing there is high need of support from the management. Management should be capable of handling such kind of new concept.
- **Aware the Consumers:** government of India and organization try to aware customers about the benefit of green marketing on their life.
- **Adopt International Standards:** Indian organization must try to adopt the international standard for the green product to gain the trust of the consumers.
- **Implement Marketing Strategies:** Organization develop good control system and implement strategies for the betterment.
- **Better Marketing Plan:** Everything is starts with a good plan so there is a need of the organization to develop a good marketing plan which can help them to capture the large share in the market.

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TRAVEL WRITING IN THE POSTCOLONIAL PERIOD**Brijesh Kumar Meena**Research Scholar, Department of English, UCSSH, Mohanlal Sukhadia University, Udaipur,
Rajasthan, India**ABSTRACT**

Travel writing is an interdisciplinary genre that has recently gained popularity as a research topic. Topics such as nationalism, identity, gender, multiculturalism, the diaspora, and imperialism are all interconnected. Concepts of colonialism, postcolonialism, border crossings, the displacement of the center and the periphery, location, and hybridity are all brought into play. Travel implies relocating, transferring from a comfortable environment to one that is unfamiliar, weird, or both that is different from one's home. This gap regularly threatens one's identity since it broadens one's comprehension of oneself and others. As a result, travel and travel writing present serious problems. Postcolonial travel literature depicts this idea of identity, self, and location. European travelers' postcolonial trip literature has drawn criticism. The genre of travel literature has reached an all-time high. It is a favorite format for writing and reading, but the current return of critical comments is worrying. The 1980s, when the genre started to draw attention, are undoubtedly the years when interest in it peaked. Several academic fields, including cultural studies, postcolonial studies, sociology, anthropology, diaspora studies, and ethnography, contribute to this idea. However, literary travel and writing continue to thrive as popular mediums even in the current era of technological developments, mass tourism, and armchair travel, now participating in more.

Keywords: #Postcolonialism, #Travel Writing, #Diaspora, #ArmchairTravel

Postcolonial critics have consistently condemned travel writing, and they will likely continue to do so. Due to what many people consider to be a close connection to colonialism, this "genre" has been swiftly associated with what Edward Said called Colonial Discourse. The fundamental "gift" of travel writing is that it disseminates sermons about inferiority and difference, which the west then uses as a rhetorical justification for conquest and colonization. The Rhetoric of Empire by David Spurr makes a similar argument. He contends that travel writings served as "a source of knowledge" for colonial administrators about the conditions in their colonies and that through describing and seeing these places, they began to feel a feeling of ownership toward them. Travel and travel tales influenced how we perceive the colonial and postcolonial worlds, and in recent years, book-length assessments of their significance to postcolonial studies have appeared. Colonialism includes the tales of many different types of travelers with a variety of goals. European merchant adventurers, colonial officials, explorers, missionaries, settlers, and others are linked with the inhabitants of the colonized areas who, as we will see, also traveled between their home countries and the rest of the world. Travel and travel tales influenced how we perceive the colonial and postcolonial worlds, and in recent years, book-length assessments of their significance to postcolonial studies have appeared. Colonialism includes the tales of many different types of travelers with a variety of goals. European merchant adventurers, colonial officials, explorers, missionaries, settlers, and others are linked with the inhabitants of the colonized areas who, as we will see, also traveled between their home countries and the rest of the world.

Postcolonial studies and travel writing often go together since the first (a "genre") serves as a major source for the latter (a scholarly enterprise, if not a bordered discipline). Due to historical events, their connection has been permanently damaged. According to Mary Baine Campbell, the need to reimagine the globe was initially prompted by the post-World War Two resistance movements and battles of liberation in the former European colonies, as well as by the waves of

immigration that followed. This interest in travel writing cut across a wide range of political ideologies. Thus, changes in the publication, reception, and study of travel writing as well as their accumulation into an academic field of study can be seen as a successive result of those physical processes of independence from colonial rule. Following this, postcolonial scholars examined a variety of writing about "foreign" and "exotic" locations to understand this break from imperial history. Due to its ability to inspire curiosity, excitement, and adventure, travel literature flourished throughout the colonial era and played a significant role in the Empire's economy and machinery.

Travel writing provided enough material for that purpose if the imperial center relied on representations of its peripheries and others to know itself and to give a sense of ownership, entitlement, and legitimacy. The widespread demise (though not total erasure) of colonial orders and structures around the world rekindled general and scholarly interest in travel writing as a distinct genre, even though it was initially at least viewed in academia with some stigma as "a kind of love that dare not speak its name," as Steve Clark observes. In addition to pointing out the articulation of a colonial epistemology in the accounts of pilgrims, soldiers, and industrialists, among many others who traveled in service of the Empire, postcolonial studies—and its theoretical branch in particular—prioritized travel as "a live and urgent issue" (ibid.: 4), and encouraged the identification and formulation of a post-imperial voice in this mode. Along with their shared historical roots, travel literature and postcolonial studies also have several other notable conceptual similarities. For instance, the issue of canon, coupled with a concern about the continuation of and resistance to orthodox forms and epistemologies, is a shared focus of both studies of trip tales and inquiries into the state of postcoloniality. The problem is also there.

Confined genre. In both situations, heterogeneity can be seen as a strength. For example, if the generic and stylistic ambiguity of travel writing leads to "a hybrid genre that straddles categories and disciplines" (Holland and Huggan 2000: 8), the emphasis on multiplicity in postcolonial theory and the porosity of postcolonial scholarship represents a reviving and resistant strategy to hegemony in its various manifestations. Despite the arguments that have recently developed within and about postcolonial studies (to which I refer below) and the opposition of some to the definitional "fuzziness" of the discipline, its heterogeneity also ensures a seemingly endless capacity for renewal and reinvigoration of both epistemology and form. The purpose of this chapter is to follow advancements in postcolonial studies as well as the function of travel writing in both of these fields.

Despite the dangers and problems associated with his admittedly ambitious endeavor, Said's work has had a significant impact on postcolonial studies and the interpretation of travel tales (which are always representations of the cultural "other"). In the early chapters of *Orientalism*, Said foreshadows some of his detractors' complaints by admitting that the heterogeneity of his primary corpus poses the risk of generalization, "distortion and inaccuracy" (ibid.: 8), and admitting to the risk that his proposal might constrict the perception of Oriental cultures as being somehow "demeaned" or "denigrated" insofar as they were seen to be "acted upon" by this persistent and am (Said does acknowledge in passing that the restrictions imposed by orientalism were not always detrimental but might, however, a yearning for uniqueness is not necessarily present when distinctiveness and distinction are emphasized. Interculturality, according to Charles Forsdick, "needs to have a paradigmatic rather than just thematic significance" in the study of travel writing (Forsdick 2005: xix), since it would seem contradictory to confine the topic's consideration to one field. These recent developments imply that travel writing and postcolonial studies will continue to be mutually invested in linguistic, thematic, and epistemological terms. This is consistent with what Said also famously asserted: that theories themselves can travel and that cultural frontiers are perhaps more porous than ever

in our increasingly globalized world. Additionally, the increased prevalence of diaspora and digital networks in today's globe raises issues regarding where people go and how they get there.

In other ways, the markets that predominate monolingualism, like that of its counterpart intellectual activity, face equal threats of standardization and exclusion. If the market threatens to corrupt the postcolonial literature of travel in this regard. Even though I started this chapter by pointing out similarities and areas of overlap between travel writing and postcolonial studies, I must emphasize differences at the end because, as Nirmala Menon puts it in terms that are pertinent to both of these topics, one way to break the stagnation in postcolonial critical perspectives is to "reroute the discipline into a multilingual field" (in Wilson et al. 2010: 218). As a matter of fact, following Harish Trivedi's claim that "the postcolonial has only ears for English" (cited in Forsdick and Murphy 2003: 7), Other modern travelers define a sort of cosmopolitanism that promotes "out-of-placeness" as a permanent, voluntary, and affirmative status in contrast to such trenchant but frequently also complicated reversals of route, story, and general conventions. Worldwide soul Pico Iyer's works, which portray a specific - and, unsurprisingly, rather privileged - post-colonial identity, are perhaps the most frequently cited example of this type. Critics are divided over whether he "[sits] rather too comfortably next to the frequent flyer" (Smethurst 2004: 181) or whether the value of his books lies not in "writing back or countering" but rather in "re-focusing" [... and writing with" (Edwards and Graulund 2011: 67). In fact, this type of modern cosmopolitanism raises numerous concerns, not least of which The term 'post-colonial' itself, for example, began to be questioned for a perceived insufficiency and imprecision in geographical and historical terms as well as for its teleological implications, which disguise the fact that the historical dismantling of institutions of colonial power (which operated in discrete forms in different parts of the world) has not always been regionally or chronologically synchronous nor resulted in a clean break from colonialism itself.¹ Indeed, independence from colonial rule was achieved at different junctures of the nineteenth and twentieth centuries, not just after the Second World War, and in diverse cultures and places located in both the so-called Third and First Worlds. In this regard, Patrick Holland and Graham Huggan suggest that 'postcolonial criticism founders on [. . .] definitional inconsistencies and on the totalizing, ironically dehistoricized vocabulary it often deploys to talk about irreconcilably different cultures

In consequence, the category and identity of the 'colonial' have come under scrutiny. On the one hand, this has resulted in the revaluation of assumed 'agents of imperialism, from the Spanish conquistadors to figures such as Alexander von Humboldt or Roger Casement, all of whom traveled to the New World, although not necessarily exclusively in the service of Empire. On the other hand, in a range of different transnational feminist projects, scholars such as Shirley Foster and Sara Mills (the latter also deploying a Foucauldian discourse analysis) have illuminated how questions of gender complicate the paradigmatic colonial experience and narrative of travel. For Foster and Mills, the journey accounts of colonial women pivot on a paradox that has to do with prevailing discursive constraints on them (the very activity of traveling, for instance, being deemed 'unfeminine', or 'disreputable'), as well as ambivalence towards discourses of imperialism and femininity, to neither of which many of their subjects appear able to wholeheartedly subscribe. Rather than sustain a specious equivalence between opposition to patriarchy at home and opposition to imperialism abroad, however, Pratt, Grewal, and others underscore the essential complexity of the locations and writings of Western women who participated in, but also might criticize and/or recalibrate, colonial discourses. Critical to Grewal's project, for example, which builds on Pratt's work but reconfigures her terms, is the notion that both 'home' and 'away' ('harem') are articulated at different sites through gendered bodies (of men and women) and that "contact zones" exist not just in the so-called peripheries, but in the colonial metropolis itself'

Nevertheless, the tendency of much postcolonial criticism of travel writing to focus on pre-twentieth-century and largely 'metropolitan' works have continued to focus attention largely on production in and at imperial 'centers'. In many ways, such endeavors simply bolster hegemonic conceptions of the Empire, rather than shed light on corresponding sources in the modern period or the former colonies themselves. In this respect, the potential anachronism and inexpediency of the term 'post-colonial' have been debated especially in the contemporary context, where it seems to fall short of capturing the singularities of the experience of neoliberal globalization or recent adjustments in the geopolitical organization and/or economic power. Corresponding efforts have been made to rethink or re-describe post-colonial geography, therefore. These have involved taking into account transcontinental and transoceanic routes which steer away from a prevailing Eurocentrism that no longer provides a dominant axis for understanding recent historical processes, but also considering the complexities of the make-up of Europe itself. Notwithstanding the equivalences often drawn between it and the West, Bracewell, for example, points out in her work on Eastern Europe that insofar as 'Europe' itself cannot be neatly divided between East and West, it is much-cited (and undifferentiated) opposition against 'the rest of the world seems increasingly untenable. Meanwhile, thinkers in and about the Global South, such as Walter Mignolo, have advanced ideas such as 'colonial difference' and 'transmodernity' as more appropriate idioms than 'post-colonial' for understanding the modern-world system as a spatial articulation of power, rather than as a linear succession of events. Yet, the valence of the 'postcolonial' (as a term and as an approach) is arguably ensured in a world in which 'people are still influenced by Empire to travel, people still migrate because of Empire and people are still hampered in their travels by Empire' (If Empire 'is still in place, literally as well as figuratively, its freight is also still associated with the possibility of a 'practical, resistant, "concrete" hoping' in a world from where colonialism has not been eradicated' (Patrick Williams in)). One especially productive outcome of the disciplinary interrogations tracked above, therefore, has been the broadening of the field of study of travel writing in at least two further respects: beyond the limited focus on the colonial period to a consideration of ancient and particularly contemporary travel texts; and, as we shall see presently, to articulations of this category of writing in cultures and languages outside the English-speaking world.

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Nevertheless, the tendency of much postcolonial criticism of travel writing to focus on pre-twentieth-century and largely 'metropolitan' works have continued to focus attention largely on production in and at imperial 'centers'. In many ways, such endeavors simply bolster hegemonic conceptions of the Empire, rather than shed light on corresponding sources in the modern period or the former colonies themselves. In this respect, the potential anachronism and inexpediency of the term 'post-colonial' have been debated especially in the contemporary context, where it seems to fall short of capturing the singularities of the experience of neoliberal globalization or recent adjustments in the geopolitical organization and/or economic power. Corresponding efforts have been made to rethink or re-describe post-colonial geography, therefore. These have involved taking into account transcontinental and transoceanic routes which steer away from a prevailing Eurocentrism that no longer provides a dominant axis for understanding recent historical processes, but also considering the complexities of the make-up of Europe itself. Notwithstanding the equivalences often drawn between it and the West, Bracewell, for example, points out in her work on Eastern Europe that insofar as 'Europe' itself cannot be neatly divided between East and West, it is much-cited (and undifferentiated) opposition against 'the rest of the world seems increasingly untenable. Meanwhile, thinkers in and about the Global South, such as Walter Mignolo, have advanced ideas such as 'colonial difference' and 'transmodernity' as more appropriate idioms than 'post-colonial' for understanding the modern-world system as a spatial articulation of power, rather than as a linear succession of events. Yet, the valence of the 'postcolonial' (as a term and as an approach) is arguably ensured in a world in which 'people are still influenced by Empire to travel, people still migrate because of Empire and people are still hampered in their travels by Empire' (If Empire 'is still in place, literally as well as figuratively, its freight is also still associated with the possibility of a 'practical, resistant, "concrete" hoping' in a world from where colonialism has not been eradicated' (Patrick Williams in). One especially productive outcome of the disciplinary interrogations tracked above, therefore, has been the broadening of the field of study of travel writing in at least two further respects: beyond the limited focus on the colonial period to a consideration of ancient and particularly contemporary travel texts; and, as we shall see presently, to articulations of this category of writing in cultures and languages outside the English-speaking world.

USAGE OF DIFFERENT FOOD AND BEVERAGES BRANDS AND THEIR PERCEIVED BRAND PERSONALITY

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ABSTRACT

The present study focuses on the preferences of different consumers towards different food and beverage brands by taking food and Beverages Company in focus. This study also enquires about how customer perceives different brands of food and beverages on the basis of their usages and also on the basis of their personality. And since how long they are using these brands. Results shown with the brand personality of a brand satisfies the needs of the consumers which go beyond their just functional demands from the brand. Consumers show preference to the brands that show congruence with the personality characteristics which are their own or those which they aspire to have. The study was conducted on a sample of 546 consumers of selected food and beverages brands, The area of the study was limited to Haryana state, and mode of data collection was either online through emails or by posting questionnaire link on social media platforms, or in person. The analysis was done through ANOVA and frequency tables. . Out of selected four food brands, majority of consumers were using the nestle maggi. Out of selected four beverage brands, most consumers were using the real juice. And it was found that mostly consumers were using the brand they mentioned related to food and beverage since childhood,

Keywords: Brand personality, Brand usage and Food and Beverages Brands

1. INTRODUCTION

Brand Personality

Operationally, brand personality may be defined as the established set of attributes, usually connected to humans that are often associated with the brand grounded on the consumer perceptions, which adds to the brand's identity. These attributes are either congruent with the consumer's qualities that they already possess or that they aspire to possess. Different concepts like the prices of the items, the categories of products that the brand sells, the aesthetics it displays, and even the official logo of the brand are important factors that reflect the personality of the brand. A brand draws in the attention and preference of the consumers based on how much it reflects and mirrors the human personality features those different consumers tend to search for. Brand personality is an important concept that influences consumer behavior in different ways and helps a brand to stand out among its competitors. It affects the success of a brand through mediating sales based on choice and preference. Brand personality distinctively establishes a relationship with the consumers through the understanding of the dimensions of brand personality.

The Food & Beverage Industry

The food and beverage service trends are rapidly changing every day for the better. The entire industry, the service provider as well as the consumer are looking forward to the latest and most innovative trends. Consumers are looking for more available and efficient options while choosing products. Consumers are health conscious as well as sensitive to price. The newest and the latest technologies are improving and implementing in the industry to lead the food and beverage industry to the next level. According to Vince Macciocchi, Nutrition, "The global health crisis has changed consumer preferences in new and unexpected ways". The trends changing at the global level The Asia Pacific Region was the largest in the global level market, deeming for about 42% of the food and beverage industry in 2019. The global food and

beverage industry accounted for an approximate value of \$5,943.6 billion in 2019. The global market for food and beverages has previously grown at the rate of 5.7% CAGR since 2015. The compound annual growth rate (CAGR) for the market is estimated to be 6.1% from 2019 and reach up to \$7,525.7 billion by the year 2023. This market is expected to touch \$8638.2 billion and \$11,979.9 billion in 2025 and 2030 respectively. According to Cushman and Wakefield (2017), “The Asia P

2. LITERATURE REVIEW

2.1 Brand Personality

“Vazifehdoost and Makhani (2017), analysed the effects of brand personality in the context of Iranian food industry. The study was analysed through quantitative exploration and convenience sampling was employed to extract the data. The population of the study was purely the Iranian customers which visit Yaran Daryan a grocery retail store. The sample size of the population was determined using Krejcie and Morgan software, where 226 respondents were asked to fill an online questionnaire. The analysis for the research study was done through PLS-SEM statistical software. The findings of the study reveal that brand trust has a significant and positive influence on the retailer personality phenomenon ‘faithfulness and elegance’ are the centroid to the evolution of brand personality. The other findings which have been complemented by past studies are trust and attitude as they influence the loyalty to a brand in this study it is ‘loyalty to the retailer’, however, retailer personality traits do not influence these variables (e.g. Zentes et al. 2008; Willems (2011) and Das et al. (2013))” (Source: Sheoran and Nisha, 2021).

Aberg (2015) conducted a study to determine how a brand reinforces its own personality through collaborating with other partnering brands. The focus of the study remains on the Swedish brand called Coop. A conceptual framework was constructed based on the literature review that became a guide for the case study. The study used the deductive qualitative single case study approach. The primary data was gathered through interviews from seven firm representatives who were taken as the sample. The data collected was analysed with empirical analysis. The results indicate that through the use of traditional marketing strategies, Coop establishes its own brand personality. It was found out that Coop started a constellation network with other brands for co-branding in order to uphold its personality traits of being familyoriented and sustainable/green. The results were found to be consistent with Marz et al. (2009).

2.2 Research Gaps and Questions

The literature review tells us that there are numerous studies available on different food and beverages brands but still there are research gaps which were found by the researcher based on that objectives of the study.

1. The numbers of food and beverages brands taken in to account are few. More number of brands can be taken.

3. RESEARCH METHODOLOGY

After detailed literature reviews we found out that customer preference for different food and beverages .With the help of review of literature a questionnaire was formulated and data has been collected for further analysis.

3.1 OBJECTIVES OF THE STUDY

1. To find out the usage of different food and beverages brand and how they perceive these brands.
2. To suggest and find ways to improve how they perceive brands.

3.2 Research Questions

The research paper will help in answering research question which are derived from literature review.

RQ1: How food and beverages companies can make its brand appealing to customers ?

3.3 Hypothesis

Hypotheses have been formulated to have an in-depth analysis of the data:

H01: There is no significant impact of consumers' brand preference on perceived brand personality.

4. Data Collection and Analysis

FOOD AND BEVERAGES BRANDS AND ITS USAGE This section covers the analysis of the responses of consumers towards the food and beverage brands they are using and since how long they are using these brands. Results shown with the help of frequency tables.

Table 4.49: Frequency Table of food brands

		Food Brand			
		Customers	Percent	Exact percent	Total
Groups	Parle Hide and Seek	98	17.9	17.9	17.9
	Nestle Maggi	172	31.5	31.5	49.5
	Amul Butter	164	30.0	30.0	79.5
	Kissan Jam	112	20.5	20.5	100
	Total	546	100	100	

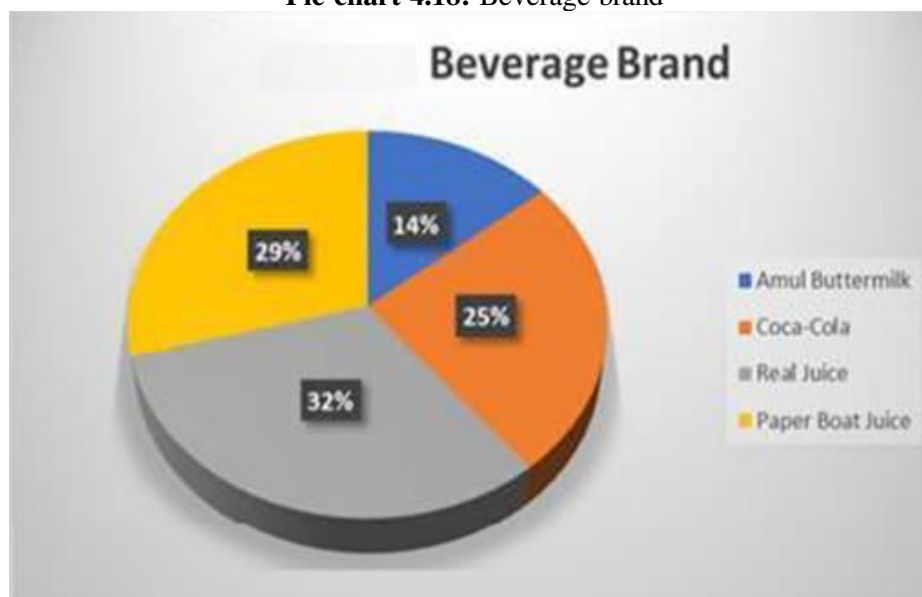
Pie chart 4.17: Food Brand



“Out of 546 consumers, among selected four food brands, 31.5 percent consumers were using the nestle maggi, 30 percent were using Amul butter, 20.5 percent were using Kissan jam, and only 17.9 percent were using Parle hide and seek”.

Table 4.50: Frequency Table of beverages brands

Beverages Brand					
		Customers	Percent	Exact percent	Total
Groups	Amul Buttermilk	77	14.1	14.1	14.1
	Coca-Cola	137	25.1	25.1	39.2
	Real Juice	173	31.7	31.7	70.9
	Paper Boat Juice	159	29.1	29.1	100
	Total	546	100	100	

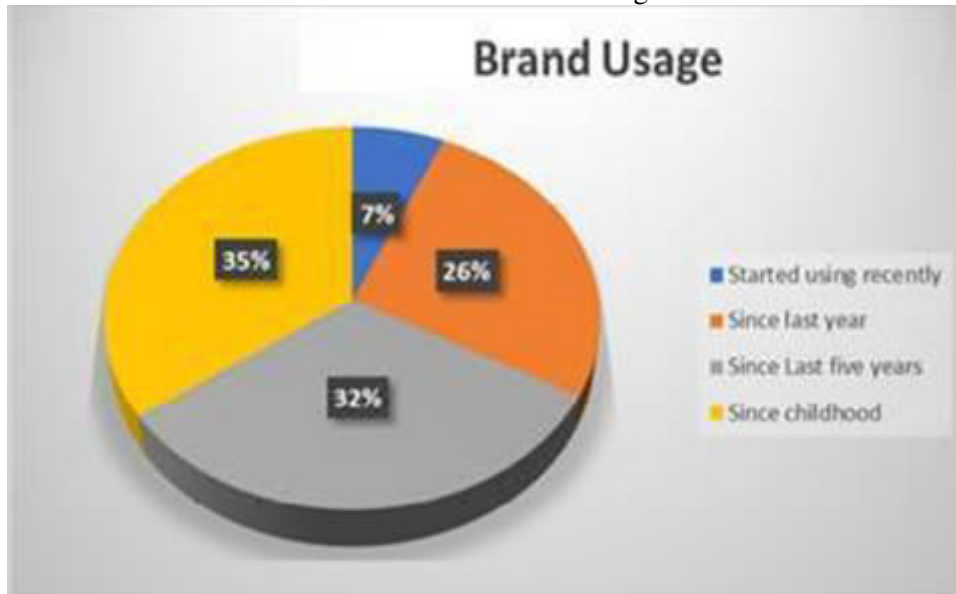
Pie chart 4.18: Beverage brand

“Out of 546 consumers, among selected four beverage brands, 31.7 percent consumers were using the real juice, 29.1 percent were using Paper Boat Juice, 25.1 percent were using Coca-Cola, and only 14.1 percent were using Amul buttermilk”.

Table 4.51: Brand Usages

Brand Usage					
		Customers	Percent	Exact percent	Total
Groups	Started using recently	36	6.6	6.6	6.6
	Since last year	144	26.4	26.4	33.0
	Since Last five years	176	32.2	32.2	65.2
	Since childhood	190	34.8	34.8	100
	Total	546	100	100	

Pie chart 4.19: Brand Usage



“34.8 percent consumers were using the brand they mentioned related to food and beverage since childhood, 32.2 percent consumers were using the brand they mentioned related to food and beverage since last five years, 26.4 percent of the consumers were using the specific brand from last one year and only 6.6 percent of the consumers have recently started using the specific food and beverage brand”.

Table 4.52: Perceived Brand Personality of Food Brands

	Customers	Avg	SD	SE	95% Confidence		Least	Highest
					Lower Bound	Upper Bound		
Parle Hide and Seek	98	116.5816	15.43855	1.55953	113.4864	119.6769	82.00	143.00
Nestle Maggi	172	119.2209	15.98567	1.21890	116.8149	121.6269	78.00	156.00
Amul Butter	164	123.2500	14.81600	1.15694	120.9655	125.5345	83.00	157.00
Kissan Jam	112	122.0536	16.19189	1.52999	119.0218	125.0853	73.00	155.00
Total	546	120.5385	15.73844	.67354	119.2154	121.8615	73.00	157.00

Consumers of Amul Butter were found to have highest mean score for the perceived brand personality, followed by the consumers of Kissan Jam. Least score for the perceived brand personality was found among the consumers of Parle Hide and Seek. Overall, not much difference was found among the perceived brand personality score of the consumers of four selected food brands.

Table 4.53: ANOVA (Perceived Brand Personality of Food Brands)

ANOVA					
	Total of Squares	Df	Average Square	F	Signi.
Between Sets	3295.812	3	1098.604	4.521	.004
Inside Sets	131699.880	542	242.989		
Total	134995.692	545			

F- test value 4.521, with a corresponding sig. value 0.004, clearly signifies that null hypothesis which states that consumers have perceived the brand personality for all selected food brands in similar way, got rejected. The perceived brand personality was found to be significantly different among consumers who were using different food brands. Hence, type of food brand used by a consumer affects how they perceive the brand personality.

Table 4.54: Perceived Brand Personality of Beverages Brands

	Customers	Avg	SD	SE	95% Confidence		Least	Highest
					Lower Bound	Upper Bound		
Amul Buttermilk	77	118.3896	16.21334	1.84768	114.7096	122.0696	85.00	150.00
Coca-cola	137	119.0438	17.41613	1.48796	116.1013	121.9863	78.00	156.00
Real Juice	173	121.1156	14.83821	1.12813	118.8888	123.3424	81.00	157.00
Paper Boat Juice	159	122.2390	14.82320	1.17556	119.9172	124.5608	73.00	144.00
Total	546	120.5385	15.73844	.67354	119.2154	121.8615	73.00	157.00

Consumers of Paper Boat juice were found to have highest mean score for the perceived brand personality, followed by the consumers of Real Juice. Least score for the perceived brand personality was found among the consumers of Amul buttermilk. Overall, not much difference was found among the perceived brand personality score of the consumers of four selected beverage brands.

Table 4.55: ANOVA (Perceived Brand Personality of Beverages Brands)

ANOVA					
	Total of Squares	Df	Average Square	F	Signi.
Between Sets	1179.037	3	393.012	1.592	.190
Inside Sets	133816.655	542	246.894		
Total	134995.692	545			

F- test value 1.592, with a corresponding sig. value 0.190, clearly signifies that null hypothesis which states that consumers have perceived the brand personality for all selected beverages brands in similar way, got accepted. The perceived brand personality was found to be insignificantly different among consumers who were using different beverages brands. Hence, type of beverage brand used by a consumer does not affect how they perceive the brand personality. All the beverage brands were perceived to be in same way by the consumers.

Table 4.56: Perceived Brand Personality of the consumer based on the duration from which they are using the product.

	Customers	Avg	SD	SE	95% Confidence		Least	Highest
					Lower Bound	Upper Bound		
Started using recently	36	114.0833	18.04973	3.00829	107.9762	120.1905	85.00	139.00
Since last year	144	118.3333	17.09292	1.42441	115.5177	121.1490	78.00	156.00
Since Last five years	176	122.7841	14.55351	1.09701	120.6190	124.9492	81.00	157.00
Since childhood	190	121.3526	14.82408	1.07545	119.2312	123.4741	73.00	148.00
Total	546	120.5385	15.73844	.67354	119.2154	121.8615	73.00	157.00

The highest mean score for the perceived brand personality was found to be 122.35 for the consumers who have started using the specific brand of food or beverage since last five years, followed by the consumers who are using the specific brand of food or beverage since childhood. While the least mean score of perceived brand personality was of consumers who have recently started using the specific brand of food or beverage.

Table 4.57: ANOVA (Perceived Brand Personality of the consumer based on the duration from which they are using the product)

ANOVA					
	Total of Squares	Df	Average Square	F	Signi.
Between Sets	3213.773	3	1071.258	4.406	.004
Inside Sets	131781.919	542	243.140		
Total	134995.692	545			

F- test value 4.406, with a corresponding sig. value 0.004, clearly signifies that null hypothesis which states that tenure of using a brand by a consumer has no significant impact on perceived brand personality, got rejected. The perceived brand personality was found to be significantly different among consumers who were using selected brands from a different time period. Hence, tenure of using a brand by a consumer affects how they perceive the brand personality.

5. DISCUSSION, SUGGESTIONS AND CONCLUSION

Findings for the Hypothesis

1. “Out of 546 consumers, among selected four food brands, 31.5 percent consumers were using the nestle maggi, 30 percent were using Amul butter, 20.5 percent were using Kissan jam, and only 17.9 percent were using Parle hide and seek”.
2. “Out of 546 consumers, among selected four beverage brands, 31.7 percent consumers were using the real juice, 29.1 percent were using Paper Boat Juice, 25.1 percent were using Coca-Cola, and only 14.1 percent were using Amul buttermilk”.

3. 34.8 percent consumers were using the brand they mentioned related to food and beverage since childhood, 32.2 percent consumers were using the brand they mentioned related to food and beverage since last five years, 26.4 percent of the consumers were using the specific brand from last one year and only 6.6 percent of the consumers have recently started using the specific food and beverage brand.
4. Consumers of Amul Butter were found to have highest mean score for the perceived brand personality, followed by the consumers of Kissan Jam. Least score for the perceived brand personality was found among the consumers of Parle Hide and Seek. Overall, not much difference was found among the perceived brand personality score of the consumers of four selected food brands. F- test value 4.521, with a corresponding sig. value 0.004, clearly signifies that null hypothesis which states that consumers have perceived the brand personality for all selected food brands in similar way, got rejected. The perceived brand personality was found to be significantly different among consumers who were using different food brands. Hence, type of food brand used by a consumer affects how they perceive the brand personality.
5. Consumers of Paper Boat juice were found to have highest mean score for the perceived brand personality, followed by the consumers of Real Juice. Least score for the perceived brand personality was found among the consumers of Amul buttermilk. Overall, not much difference was found among the perceived brand personality score of the consumers of four selected beverage brands. F- test value 1.592, with a corresponding sig. value 0.190, clearly signifies that null hypothesis which states that consumers have perceived the brand personality for all selected beverages brands in similar way, got accepted. The perceived brand personality was found to be insignificantly different among consumers who were using different beverages brands. Hence, type of beverage brand used by a consumer do not affect how they perceive the brand personality. All the beverage brands were perceived to be in same way by the consumers.
6. The highest mean score for the perceived brand personality was found to be 122.35 for the consumers who have started using the specific brand of food or beverage since last five years, followed by the consumers who are using the specific brand of food or beverage since childhood. While the least mean score of perceived brand personality was of consumers who have recently started using the specific brand of food or beverage. F- test value 4.406, with a corresponding sig. value 0.004, clearly signifies that null hypothesis which states that tenure of using a brand by a consumer has no significant impact on perceived brand personality, got rejected. The perceived brand personality was found to be significantly different among consumers who were using selected brands from a different time period. Hence, tenure of using a brand by a consumer affects how they perceive the brand personality.

5. RECOMMENDATIONS OR SUGGESTIONS

1. Customers usually prefer reliable brands, as food and beverage directly affect their health, and negative publicity may have huge impact on the brand reputation.
2. Food and beverage brands need to focus on the wide range availability, packaging so that more customers can be attracted.

6. LIMITATIONS AND FUTUREIMPLICATIONS OF THE STUDY

The current study has following limitations and future scope for researchers:

1. The study is limited to the Haryana state only, its reach can be widen up.
2. Current study was conducted for food and beverage brands only, while same can be extended to the other brands or products as well.

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USE OF HUMOR IN R.K. NARAYAN'S NOVEL

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ABSTRACT

Humour is a state of mind that has the ability to make people laugh. Humor and wit identify the comic species. Wit is the mental faculty of intelligence. In his novels, Narayan employs wit to produce humour. It is possible to understand the sociological interpretations of humour in R. K. Narayan's works for his ideas are based on in-depth research and offer several viewpoints on literary interpretations. He uses critical analysis to build social order, acceptance, and transformation through making fun of human conditions, interactions, and cultures. Humor is a sort of art, and people's acceptance of humour depends on a variety of sociological circumstances. Humor improves a person's physical and psychological health. It is an amusing intellectual experience that makes people laugh. Narayan's writings, which are fictionalised, portray the peculiarities and foibles of modern Indian life. They have a genuinely sarcastic quality. Comedy is a sort of art that helps people understand the evil that exists in their society. R. K. Narayan uses the genre of comedy to combat corruption in society. To demonstrate to his viewers the contradiction present in Indian culture, he uses regular people from the community as his protagonists. Indian philosophy is heavily infused in his writings. A discussion of the sociological interpretations of humour that may be found in many contexts, descriptions, narratives, and dialogues that enhance and advance human life is attempted.

Keywords: Humour, perception, sociological evolution, cognitive experience, irony.

INTRODUCTION

R.K. Narayan is one of the most well-known and popular Indian novelists. His tales emphasised the humour and vitality of everyday life and were based on a caring humanism. Using the English literary idiom, Narayan conjures diction of exceptional freshness and rare creativity. He was a vivid and dynamic author who uses humour and simplicity to explain human behaviour.

RK Narayan stood shortened to R. K. Narayan, on Graham Greene's advice. Narayan published works up until the age of eighty-seven, wrote for more than fifty years, and lived to be ninety-five. He wrote fifteen novels, five collections of short stories, a number of travelogues and non-fiction collections, English translations of Indian epics, and the memoirs "My Days ". However, it is not Narayan's prolific output, nor the currency of his content—or the lack of either—that places him among the finest storytellers of modern English.

LIFE AND ACHIEVEMENTS

R. K. Narayan was born on 10 Oct, 1906 in Madras, South India. He got his education at Maharaja's College in Mysore where his father was a teacher. He did not become a successful writer right away, like many successful people. His father was a teacher at Maharaja's College, now known as Collegiate High School, in Mysore, where RK Narayayn received his schooling education. He did not become a successful writer right away, like many successful people. With the little money he received from writing tales and essays for several newspapers, he struggled to make a life. But all changed when renowned British author Graham Greene read the first draught of his Malgudi-set novel *Swami and Friends*. With the imaginary help of Graham Greene, it was published, and the author never looked back, enthralling millions of readers all over the world. Together, he produced 29 novels based on Malgudi and a large number of short stories. His novel 'The Guide' won him the

prestigious Sahitya Academi Award first time given to a book in English. R. K. Narayan created an imaginary world that doesn't exist yet resonates with folks who read English because it is so perfectly genuine. His books have endured in popularity for many years because of their subdued, comforting appeal. Additionally, numerous American universities include his writing in their literature curricula.

The list of Narayan's achievements is neverending. He won many awards during the course of his literary career. His first major award was the Sahitya Academi Award (1958) for 'The Guide'. He won the Filmfare Award for best story when the book was adapted into a movie. He was awarded the Padma Bhushan in 1964 as part of the Republic Day Honors. He received the AC Benson Medal in 1980 from the (British) Royal Society of Literature, where he had an honorary membership. He received the honorary membership in the American Academy of Arts and Letters in 1982. Despite numerous nominations, he never won the Nobel Prize for literature.

Honorary doctorates were also awarded by Delhi University, the University of Mysore, and the University of Leeds in 1967, 1976, and 1977, respectively (1973). In recognition of his contributions to English literature, Narayan received a nomination at the end of his career to serve in the upper chamber of the Indian parliament for a six-year term beginning in 1989. He received the Padma Vibhushan, India's second-highest civilian honour, in 2000, a year before his passing.

Through his writing, Narayan was most successful in opening up India to the outside world. Along with Raja Rao and Mulk Raj Anand, he is regarded as one of the three top writers of Indian literature in the English language. One of the greatest novels India has ever produced; he gave his readers something to look forward to with Malgudi and its inhabitants. He did a convincing and experimental job of bringing small town India to his viewers. Malgudi was not simply a made-up Indian village; it was also alive with people, every one of whom had their own quirks and personalities, making the situation feel as familiar to the reader as if it were their own neighbourhood regarding him.

USE OF HUMOR

A sociological perspective on the humorist R.K. Narayan: "It was Monday morning, and Swaminathan was reluctant to open his eyes. In the calendar, he thought Monday was particularly terrible. (1944, p. 1) The reluctance of a school boy to attend school brings out the humor in Narayan's writings. His creative mind uses life's truths to reveal humour. Characters are quite humorous with the intention of painting a fun picture with their language. All of the characters have witty, humorous personalities that give readers a lot of enjoyment. Narayan's comedy is honourable, knowledgeable, and mature because of his in-depth research, broad knowledge, and minute perceptions of ephemeral life.

Narayan writes in his 1935 first book *Swami and Friends*, "... And yet you are roving about the home like an unbound donkey". Swami's exams were about to start from next day. He makes a list of things to buy for the examination and gives it to his father. His father gets very angry and scolds him for wandering like a donkey in the house and not being serious about studies.

The word "donkey" used by Narayan as a metaphor makes the reader laugh as we all know the qualities of a donkey. Swami is being compared to a lazy donkey who has no work to perform. Narayan's humor provides an important ingredient in his otherwise strong indictment and criticism of the contemporary society and its many facets, oddities in characters. His mild satire provokes people, to think and change towards the betterment of life. His stories like 'Swami and friends' have humorous details which provoke emotion and enlighten experience.

Father of Swami reads an article about a brave young man who confronts a tiger. He tells Swami to learn something from the article which leads to an argument between them. Father challenges Swami to demonstrate his bravery by spending the night alone in his workplace.

When Swami was sleeping at his father's office, he felt lonely. His imagination of ghosts and devils grew, and his heart beat faster. He had a night. The psychological effect of an imagination

of tiger and trauma faced by Swami tickles the funny bone of the reader. Narayan has the innate quality of going in-depth of the childhood experience and puts in with a touch of humor.

Swami ducks beneath the bench after spotting a shadow in the space. He bites into the flesh of the thief and thus becomes a hero over night; he is praised by the police and teachers. "You saw how beastly our headmaster was. You would have punched him in the face if you had been in my position. When Rajan attended Board High School, he came to see Swami. Swami receives a spanking from the headmistress for smashing the ventilator window in his office. Everyone who was wearing a headgear made of foreign fabric took it off and burned it. Swami pursues them on their hartal and throws stones through the school's windows. The following day, the Headmaster summoned Swami and reprimanded him. He quickly leaves the structure, muttering that it is filthy. Swami states that if he had been in Rajam's shoes during this encounter, Rajam would have struck him in the face.

The situation reflects the strong nationalism among the people of Malgudi, and they are united to protest against the British Rule in India by boycotting wearing caps made up of foreign cloth. Swami wants to gain sympathy from his friend Rajam. Amusement arises from false claims upon our sympathy which ends in laughter. Because of his harsh ways, Swami refers to his Headmaster as a beast. Swami's character is full of the innocence of a child. It is natural for any human being to revolt on being punished, but Swami being a student had to suppress his anger.

In the novel *The Painter of Signs* (1977) Narayan tells us about a painter. Raman was a voracious reader of books. He delves into Menaster's reading philosophy, calling him a beast for his rigid conduct. Readers laugh at the various bookworm characters. "It's not like folks are terrified of kids these days. In those days, the house was full "added Aunt. At that time, according to Aunt, the house was packed.

The reference to the past by Raman's aunt refers to a time when the house was crowded with kids who were respectful to their elders. Nowadays, a young child would intimidate their parents and demand money from them. The reader giggles at the role-reversal between children and their parents. The reader laughs along with the population control message. Raman believes that bachelors should receive a bonus since by staying single; they help to reduce population growth.

The irony with which Narayan presents the issue of population expansion makes the reader chuckle. Where long lines of people may be seen battling for food, clothing, and shelter. Narayan (1986), Narayan uses animal characters to create humour in his books, such as "A Tiger for Malgudi." In this book, the tiger speaks for itself. "The Head Masters' room was the scene. I was convinced and saw a very respectable man leaping upon his table and climbing into an attic ".

In order to rest, the tiger goes into the Head Master's room. The tiger saw a man climbing up a table to get to the attic, where he felt safe. According to Narayan, Head Master is a respectable man in a position of authorities who does absurd things like leap on the table and hides in the attic to save his life. The comic character of a chatty man is used by Narayan to amuse the reader in the 1986 book "The Talkative Man." The wife of Dr. Rann was looking for her husband. When she arrives in Malgudi, she encounters a chatty fellow and tells him everything. The chatty man worries that Mrs.Rann would strip him of his title. In this novel 'The World of Nagaraj' (1990) Narayan says that misunderstanding between Gopu and his son Tim. The technique of using absurdity in the character of Nagaraj, when he is talking to himself loudly produces amusement.

Narayan details his grandma's life in the 1992 book "The Grandmothers Tale." Bala and Viswa were wed while they were young. When Viswa visited his wife, his neighbour would make fun of him. Readers are amused by Viswa's desire to see his wife.

R.K. Narayan collected his hilarious articles into the 1956 book *Next Sunday*. Article 'Radio License': Narayan was passing through the last grace period allowed for renewing his radio license. To renew his radio licence, he had to complete a form. The author says that it always happens when one has to write slowly in block letters. He ruined the form as a result, and he was too afraid to ask the officer for another one. In his 1974 book "The Reluctant Guru," Narayan wrote a few amusing essays. The fundamental human instinct of fear is constantly present in "The Reluctant Guru." This essay makes me giggle because of Narayan's dread as an emotion. The subject of a reporter's interview with Narayan was afterlife, which also happened to be the subject of his book "The English Teacher." He asked Narayan if he believed in an afterlife and if he could converse with spirits, see ghosts, or practise spirituality.

Narayan responded by stating that he writes fiction. The book "A Writer's Dream" contains some humorous sections. Narayan chose unusual topics for his articles and attempts to make them humorous in the essay "Pick Pockets." He respects burglars because they are good, peaceful, and harmless.

The struggle between quietist renunciation and social action that Narayan's novel seems to address has precedents in traditional Hindu storytelling. After revisiting Narayan's works several years later, Naipaul explains how he initially mistook them for holy texts and only afterwards realised that they were more than just social comedy.

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WOMEN EMPOWERMENT SCHEMES IN INDIA: AN OVERVIEW

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ABSTRACT

The sex ratio in India is skewed. This is because women are still treated differently as compared to men. However, governments have implemented a variety of anti-discrimination initiatives. The Indian government launched Beti Bachao, Beti Padhao (BBBP) in 2015. The programme aims to combat gender bias and improve girls' welfare services. One-stop centres will be opened across the country to help women affected by private and public violence. Women Helpline (WHL) will be integrated with One Stop Centre Scheme. States/UTs will use or augment their existing women helplines through WHL. Ujjawala is a government programme for preventing illicit trafficking and rescuing, reintegrating, and rehabilitating trafficking victims. Working Women Hostel Scheme will allow children in special cases. Swadhar Greh Scheme is aimed at women who have faced adversity and require institutional assistance for rehabilitation. Swadhar Greh is a Scheme set up by the Government of India to provide assistance to women who have been trafficked, trafficked or trafficked into new families. The aim of the Scheme is to offer them legal assistance so that they may begin the process of readjusting to their new family. Nirbhaya Fund was named after the victim's codename, which means fearless. Government contributed Rs. 1000 crores to non-lapsable corpus fund for women's protection and security. Department of Economic Affairs of the Ministry of Finance administers the fund. Committee of officers led by Secretary of Women and Child Development recommends funding requests.

Keywords: Child development, Women empowerment, Women helpline, Ujjawala.

INTRODUCTION

The sex ratio in India is skewed. This is because women are still treated differently as compared to men, in different parts of the country (Mutta et al., 2014). This problem has been seen from ancient India, where women were worshipped as goddesses and at the same time treated as slaves. Following independence, governments have implemented a variety of anti-discrimination initiatives. The Preamble, Fundamental Rights, Fundamental Duties, and Directive Principles of the Indian Constitution all include the principle of gender equality in order to ensure women's equality in all spheres of life and empower the state to adopt positive discrimination measures in favour of women. Our laws, development policies, plans, and programmes promote women's advancement in a democratic society. Women's issues have shifted from welfare to development since the Fifth Five-Year Plan (1974-1978). In recent years, it has been acknowledged that women's empowerment is crucial to their status (Anonymous, 2001). Parliament established the National Commission for Women in 1990 to protect women's rights. The 73rd and 74th Amendments (1993) to the Indian Constitution reserved seats for women in Panchayats and Municipalities, allowing them to participate in local decision-making (Kaviarasu and Xavier 2016). This manuscript focuses on the main schemes of the present government which are launched to bridge the gender gap which are as follows:

- 1) **Beti Bachao Beti Padhao Scheme:** The Indian government launched Beti Bachao, Beti Padhao (BBBP) in 2015 to combat gender discrimination and empower women. Beti Bachao, Beti Padhao means 'Save the girl child, educate the girl child'. The programme aims to combat gender bias and improve girls' welfare services. It started with Rs. 100 crore (US\$13.5 million). The scheme was launched after the 2011 census revealed a decline in Child Sex Ratio and Sex Ratio at Birth. CSR is the ratio of girls to 0-6-year-old boys. This

ratio fell from 945 in 1999 to 927 in 2001. (Chakraborty and Sinha, 2008). 2011 saw 918 girls per 1,000 boys. SRB was found to be the main cause of the decline (Agnihotri and Malipatil, 2018). Dip in these ratios is a sign of gender discrimination and women's disempowerment, reflecting both pre- and post-birth discrimination through gender-biased, sex-selective abortion. Strong socio-cultural and religious preference for boys was the root cause of the problem, which prompted the BBBP initiative. The scheme is run by the Ministries of Women and Child Development, Health and Family Welfare, and Education. The Beti Bachao Beti Padhao Yojana aims to achieve the following goals:

- a. Improve the child sex ratio
 - b. Ensure gender equality and women empowerment
 - c. Prevent gender-biased, sex selective elimination
 - d. Ensure survival and protection of the girl child
 - e. Encourage education and participation of the girl child
- 2) **One Stop Centre Scheme:** One-stop centre is a Ministry of Women and Child Development (MWCD) programme to address violence against women. It's a subscheme of the Indira Gandhi Matritav Sahyaog Yojana umbrella scheme. One-stop centres will be opened across the country to help women affected by private and public violence. The central government provides 100% financial assistance to state/UT governments through the Nirbhaya Fund. Social audits will be done by civil society groups according to CAG norms (Annual Report 2016-17, Ministry of Women and Child Development, Government of India). One stop centres will be integrated with women helplines to provide following services:
- a. Emergency response and rescue services:
 - b. Medical assistance.
 - c. Assistance to women in lodging the FIR.
 - d. Psycho- social support and counselling.
 - e. Legal aid and counselling.
 - f. Shelter
 - g. Video conferencing facility.
- 3) **Women Helpline Scheme:** The Scheme of Universalization of Women Helpline provides 24 hour immediate and emergency response to women affected by violence through referral (to police, One Stop Centre, hospital) and information about women-related government schemes programmes across the country. Women Helpline (WHL) will be integrated with One Stop Centre Scheme (OSC) to help women affected by violence in private and public spaces. WHL refers victims of violence to OSC. States/UTs will use or augment their existing women helplines through WHL. Delhi, Chandigarh, and Chhattisgarh use 181 as a Women Helpline. Under this scheme, states/UTs must adopt 181 as WHL (INDIA, 2022). This number will work with any public or private post/prepaid mobile or landline service (GSM, CDMA, 3G, 4G, etc.). This women's helpline would combine private and public state/district/city lines. The objectives of the Scheme are:
- a. To provide toll-free 24-hours telecom service to women affected by violence seeking support and information.
 - b. Facilitate crisis and non-crisis intervention by referring to police/hospitals/ambulance services/DLSA/PO/OSC.

- c. To provide information on support services, government schemes, and programmes available to a woman affected by violence in her local area of residence or employment.
- 4) **UJJAWALA:** Ujjawala was launched in 2007 to end child and women trafficking. The scheme aims to prevent, rescue, rehabilitate, reintegrate, and repatriate trafficked victims. Organized crime violates human rights by trafficking children and women for sexual exploitation. Lack of protection, low women's status, and poverty cause trafficking. Ujjawala is a government programme for preventing illicit trafficking and rescuing, reintegrating, and rehabilitating trafficking victims (Ujjawala, 2016). The scheme's goals are:
 - a. Preventing the commercial sexual exploitation of children and women through social mobilisation, awareness programmes, local community participation, seminars/workshops, and other innovative activities.
 - b. Facilitating victim rescue and safekeeping.
 - c. Providing victims with food, clothing, shelter, medical help, legal aid, guidance, counselling, and vocational training.
 - d. Reintegrating victims into family and society.
 - e. Repatriating cross-border victims.
- 5) **Working Women Hostel:** Indian women who are working away from home or are homeless often worry about their safety. The government passed a new housing programme for working or helpless women. Working Women Hostel Scheme will allow children in special cases. Women's empowerment is the goal. The programme opens the hostel to women without caretakers. Women may be widowed, single, separated, or divorced. Married women without city relatives will also be given hostel rooms. If a woman is physically handicapped and has legal documents, the hostel will accommodate her. They'll be safe. If a female hostel applicant is getting job training, she can stay. Training must last one year. Vacancy determines room allocation. Job trainees must not exceed 30% of the hostel's women. Sometimes only the woman cares for the kids. In these cases, working mothers can stay with their kids. Boy and girl shouldn't be older than 9 and 15 in such cases. In addition to women working or training away from home and physically handicapped candidates, the programme will house poor women. The working women must pay monthly rent. Rent depends on the room type. Single bedroom rent cannot exceed 15% of a candidate's gross salary. 10% for double rooms and 7.5% for dormitories (Anonymous, 2017).
- 6) **SWADHAR Greh (A Scheme for Women in Difficult Circumstances):** The Ministry of Women and Child Development is implementing the Swadhar Greh Scheme, which is aimed at women who have faced adversity and require institutional assistance for rehabilitation in order to live a dignified life. The program's goal is to provide these women with a safe place to live, food, clothing, health care, and financial and social security. Swadhar Grehs, with a capacity of 30 women, will be established in each district to achieve the following objectives:
 - a. To provide the fundamental needs of women in distress who lack social and economic assistance, such as housing, food, clothes, medical treatment, and care.
 - b. To help people reclaim their emotional power, this has been harmed as a result of their tragic circumstances.
 - c. To offer them legal assistance and instruction so that they may begin the process of readjusting to their new family/society.
 - d. To economically and emotionally rehabilitate them.

- e. Assist women in distress by acting as a support system that recognises and supports their unique needs.

Following Organizations can set up Swadhar Greh under this Scheme:-

- i. State Government organizations including the Women Development Corporations set up by the State Governments.
- ii. Focal or State independent bodies
- iii. Metropolitan Bodies
- iv. Cantonment Boards
- v. Panchayati Raj Institutions and Co-usable organizations
- vi. Divisions of Women and Child Development/Social Welfare of the State Governments
- vii. Public Trusts enrolled under any law for the time being in power

7) **NARI SHAKTI PURASKAR:** The Nari Shakti Puraskar is an annual award awarded by the Ministry of Individuals and Child Development of the Government of India to women or organisations working to empower women. It is the highest civilian honour for women in India and is awarded on International Women's Day (8 March) at Rashtrapati Bhavan in New Delhi by the president of India. In 1999, the award was established under the name Stree Shakti Puraskar; it was renamed and reorganised in 2015. It is awarded in six institutional and two individual categories, each of which carries a monetary prize of two hundred thousand rupees.

8) **NIRBHAYA:** After the 2012 Nirbhaya Gang rape case, the Indian government created the Nirbhaya Fund in 2013 to improve the protection and safety of women in India. Nirbhaya Fund was named after the victim's codename, which means fearless. Government contributed Rs. 1000 crores to non-lapsable corpus fund. The Ministry of Finance's Department of Economic Affairs administers the fund. The Women and Child Development Ministry oversees Nirbhaya Fund spending. It reviews and monitors Nirbhaya Fund schemes. Previously, it released cash, but today it evaluates programmes presented by states under Nirbhaya, approves them, and proposes transferring funds to the Department of Economic Affairs. The Centre grants money to the states for women's protection activities through the Nirbhaya Fund. The Nirbhaya Fund Framework proposes a non-lapsable corpus fund for women's protection and security to be handled by the Department of Economic Affairs of the Ministry of Finance of India. A committee of officers led by the Secretary of the Ministry of Women and Child Development (MWCD) reviews and recommends funding requests. The Nirbhaya Fund Framework proposes a non-lapsable corpus fund for women's protection and security to be handled by the Department of Economic Affairs of the Ministry of Finance of India. Since 1 April 2015, "One Stop Centre (OSC) Scheme" has been implemented nationwide under the Nirbhaya Fund (Framework for Nirbhaya Fund).

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WOMEN ENTREPRENEUR CHALLENGES IN CURRENT ECONOMIC ECOSYSTEM IN INDIA

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ABSTRACT

There is no part of the Indian economy where women do not play an essential role. Women's entrepreneurship is a newer phenomenon that is altering the way society and the family see women's roles, responsibilities, and economic standing. As gender norms and attitudes shift, more and more women are venturing out on their own. Likewise, the scale and complexity of their issues are recognized. To be a woman company owner is fraught with peril and challenge. The purpose of this research is to use a systems perspective to better understand the challenges faced by women business owners in Northern India and to propose viable solutions to those challenges. Applying exploratory factor analysis, we observed that the most pressing challenges centered on inputs, as well as socio-personal and management issues, and technological difficulties. Information was gathered with the use of a questionnaire and then analysed with exploratory factor analysis to determine which factors were most important.

INTRODUCTION

The female population is an important part of India's history that has been neglected by the country's economic success. Women in India are still excluded from the economy and are not benefiting from the country's progress, despite the country's social advancements. Instead, due to labor trends, technological disruption, and limiting societal hurdles, women's involvement in the labor market has stalled and is predicted to drop further.

In India, women's contributions to society and the economy are ignored. While some women do find paid employment outside the home, the vast majority of women occupy unpaid caregiving, household management, or similar roles. Despite women's increased access to education and healthcare, they nevertheless confront systemic, cultural, and economic challenges in the workplace. That hinders both women's in the current economic empowerment and India's overall social and economic development. Despite the country's progress, its women's potential has not been fully realized.

Although progress has been made, women have been left out of India's success narrative. Seventy-five percent of women of working age in India, or 35 percent of the total working-age population, are unemployed, according to a World Bank estimate. Although 61% of people worldwide have access to a mobile phone, just 19% of people worldwide have internet access through a mobile phone, and only 35% of people worldwide have a bank account that they use regularly. Finally, in India, women make up 42% of the agricultural labour force, yet they control just 2% of the acreage (Rajan, Chawla and Sahni, 2019). Women entrepreneurs, whether they're city dwellers or farmers, can play a crucial role in the modernization of the agricultural, rural, and urban ecologies. There are substantial cultural limitations that affect all segments of entrepreneurs and non-entrepreneurs alike. These take the shape of pervasive prejudices against women in the workforce and the lack of social permission to work. Although it is a difficult task, encouraging female entrepreneurs in India might have a profound impact on the country's economy and the lives of Indian women for years to come. According to Hisrich and Brush (1983), "Entrepreneurship is the process of creating something different of value by devoting the necessary time and effort, by assuming the accompanying financial, psychological, and social risks, and by receiving the resulting rewards of monetary and personal satisfaction." This definition remains applicable for the purposes of this research study.

Entrepreneurship encompasses several facets, interdisciplinary and multifaceted phenomena in which novelty and creativity play a central role. To succeed, businesses in the industrial sector need to be innovative and creative. Nearly half of India's roughly 1.4 billion citizens are women. Fewer women of working age are participating in the economy than is the case in most other countries. Unemployment is unavoidable when one considers the size of the population and the available resources, and this problem has recently reached frightening proportions. Agriculture, handicrafts, handlooms, cottage-based enterprises, and professional activities like teaching and office administration are all examples of unorganized sector jobs that disproportionately employ women. Their little income is the result of seasonal, low-skill, low-paying jobs.

Women's entrepreneurship is a newer phenomena that is altering the way society and the family see women's roles, responsibilities, and economic standing. As gender norms and attitudes shift, more and more women are venturing out on their own. Likewise, the scale and complexity of their issues are recognized. To be a woman company owner is fraught with peril and challenge.

The purpose of this research is to use a systems perspective to better understand the challenges faced by women business owners in Northern India and to propose viable solutions to those challenges. Identification of the factors that are still the persisting issues and need enablement from the public and private sector for empowering of the economy with participation of women entrepreneurs.

Applying exploratory factor analysis (EFA), we observed that the most pressing challenges centered on inputs, as well as socio-personal and management issues, and technological difficulties.

METHODOLOGY

A structured survey questionnaire instrument was deployed for collation of data and Exploratory factor analysis was used for pinning down the final factors identification.

LITERATURE REVIEW

The increasing focus on women's duties, responsibilities, and financial status in society at large and in the home is gradually shifting due to the rise of women entrepreneurs. Likewise, the scale and complexity of their issues are recognized. Women entrepreneurs have unique challenges while launching and growing their businesses. However, entrepreneurs have the potential to affect systemic change by incorporating a dedication to sustainability into their own creative processes. There has been little work done in India on women entrepreneurs despite the fact that the topic of entrepreneurship is gaining increased attention from the government, research activities, and new courses. Statistics and data on women-owned enterprises are sketchy at best and sometimes incomplete. As a result of a lack of information, there has been only a minimal effort put into developing a workable and well-thought-out strategy to support female business owners. In this section the critically assessed factors are explained and detailed out for understanding and deliberations.

- **Financial Inclusion (FIN A) – Price Fluctuation of Raw materials and Transportation Cost**

The scarcity of raw materials, sometimes nor, availability of proper and adequate raw materials sounds the death-knell of the enterprises run by women entrepreneurs. Women entrepreneurs really face a tough task in getting the required raw material and other necessary inputs for the enterprises when the prices are very high (Vadivel, 2016). The geo-political scenario and availability of funds at the opportune time is also challenging. Fuel cost variations do add pressure on the capital adequacy for the entrepreneurs. Things certainly are improving but its is still a critical challenge and tremendous attention is warranted.

- **Financing the business (FIN B) – Working Capital and Capital for expansion**

Catalyzing women's entrepreneurship is essential if India is to reach its goal of a \$5 trillion economy, particularly at the base of the pyramid where employment is scarce. The only way to ensure that female entrepreneurs have the resources they need to launch and expand their businesses is to ensure that they have timely access to institutional funding.

According to a working paper published by the International Monetary Fund (IMF), women entrepreneurs in India already contribute 17% to GDP, and additional measures to close the gender gap in the country, such as better access to finance and reforms in the labor market, can help add another 6.8% to GDP. Women in India control an estimated 15.7 million firms, or about 20% of all enterprises, according to a research co-authored by Google and Bain & Company. These businesses are primarily micro, small, and medium sized enterprises (MSMEs) and agricultural operations.

Women business owners, according to the same estimate, may provide 17 crore new employment to the economy by the year 2030. In the next decade, India is projected to have more than 100 crore individuals of working age. Creating stable job opportunities for the country's young requires a strong emphasis on women's entrepreneurship and women's engagement in the workforce.

In 2020, women made up little under 20% of India's labor force, according to World Bank figures, compared to close to 40% globally. India can make better use of its demographic dividend if it improves its access to financing and actively encourages women to start and grow businesses. More than 3 million women operate businesses in India, representing a substantial market opportunity that is currently being ignored. A recent study illustrates the greater difficulty women face when attempting to secure business loans from financial institutions compared to their male counterparts. Even while several banks in India have used creative strategies to increase the availability of loans to micro, small, and medium-sized businesses, those owned by women have been left out of the mainstream. A recent report by the International Financing Corporation (IFC) titled "Improving access to finance for women-owned enterprises in India" emphasizes the apparent lack of attention shown by financial institutions toward women-owned firms. Because banks don't have faith in women-owned businesses, the sector receives poor service and is often given incorrect goods and procedures (Khera, 2018).

The main problem is the distrust shown by banks and other financial institutions towards businesses run by women. This viewpoint originates from the fact that Indian banks and other financial organizations have an unusually high percentage of male employees. Staff attitudes regarding women-owned businesses in India's scheduled commercial banks are likely influenced by the fact that just 17% of bank workers are female (perhaps due to the societal biases).

In addition, banks don't do nearly enough to either make processes easier for women business owners (and most MSME business owners) or to appropriately convey those processes to them. Because of the ambiguity around the necessary supporting documentation, customers are forced to make many journeys to the bank before giving up on the entire endeavor.

- **Input Factors – Market Assessment/Competition – Raw material availability and Product demand**

Patrilineal cultures' indelible imprint means that women everywhere start enterprises with less resources and fewer opportunities than their male counterparts. Women business owners face barriers to information access since they tend to run smaller businesses. Existing networks tend to be predominantly male and may not always be receptive to women. Most women business owners said they don't want to approach these unofficial lenders because they're afraid of being

physically harmed or having their safety compromised. Since males predominate in the informal lending industry, they worried that there wasn't a sufficient number of female lenders.

A significant barrier to women-owned enterprises is the high financial (in terms of interest) and emotional cost associated with making and maintaining new business contacts and partnerships. In addition, they need experience, information, and connections to successfully enter new markets. To effectively promote their wares, women in business typically lack the knowledge and skills to do so. Due to the strict enforcement of familial behavior along caste lines in India, women from lower castes have few if any relationships among those in power (Scott et al, 2017). Consequently, women entrepreneurs, especially those operating in rural areas, sometimes lack easy access to crucial information such as market evaluation, competition's weaknesses and strengths, product qualities, and its usability.

- **Labour** – Lack of skilled labour, low productivity and limited marketing means

Efforts to encourage female entrepreneurship must take into account the wide-ranging influence of social and cultural elements on women's participation in the workforce and their economic independence. Women are generally prevented in many regions of India from pursuing economic independence or autonomy outside the house for a variety of reasons, including social conditioning, culture, safety, and prestige. The right to equal ownership of assets is frequently disregarded. When it comes to property ownership and money matters, women often defer to male relatives such as their dads, brothers, husbands, or sons. There are constraints on finance and access to external resources due to a lack of collateral and financial independence.

At the domestic level, women's expected role as primary caretakers and household operators implies any professional job outside is secondary. Self-doubt and a lack of confidence are tough to overcome if you don't have somebody to lean on for help. Women often believe they have a long way to go before they can compete with males in the realm of important entrepreneurial skills like teamwork, networking, and taking calculated risks.

Last but not least, women face another barrier to work and business in the form of limited mobility due to main caring obligations and safety concerns. Any large-scale effort to promote entrepreneurship and its potential to produce widespread employment for women in India must incorporate systematic approaches to addressing these underlying assumptions and confronting these conventions. To be effective, stakeholders must coordinate with, underline and model this messaging throughout the Indian ecosystem. Hence the skill required for rural or even urban women entrepreneurs lacked in the ecosystem as they were not given tremendous learning and information access opportunities. But with digital intervention in our lives the amount of information needed and with the speed has certainly made difference for women professionals particularly from marketing standpoint too.

As per IMF working paper the model proposed highlights that when women's financial constraints are removed and there is no longer a gender gap in access to finance, the Indian economy sees a 1.6 percent increase in GDP and a 5 percent decrease in unemployment. It also increases the number of women who start businesses in the formal economy, which in turn increases the number of jobs available to women and hence increases their involvement in the labor force. However, when there are barriers to entry in the labor market, businesses are more likely to rely on informal hiring practices. In turn, this reduces the benefits of expanding access to financial services.

Second, expanding the formal economy by reducing gender inequalities in financial access when formal labor markets are more flexible multiplies the benefits of the former. When hiring expenses in the formal labor market are reduced by 10%, GDP grows by 4.7%, unemployment drops by 9.0%, and the percentage of men and women working in formal jobs rises by 11.5%. Male workers benefit more, however, as a smaller increase in female labor force participation

and formality results from constraints on female labor supply (modeled as lower safety and mobility and cultural constraints) and demand (modeled as lower skills and gender-based discrimination in employment). This contributes to the already existing disparities between the sexes in the workplace.

Reforms that make it easier for women to have access to financial services and employment opportunities have a multiplier effect on the economy as a whole. The gender wage gap closes and women's productivity rises when they have equal access to education and training. An additional benefit is that more women working in more productive roles helps the formal economy grow, which benefits both women and men by creating more jobs. India's GDP might grow by 6% if this were added to the benefits of expanded financial inclusion.

- **Personal Issues** – Family Life, Lack of respect and confidence to start a venture

Few women can devote their whole time and energy to their business because of their primary duties to children, the home, and other members of their dependant family. Women business owners have long demanded better access to resources including capital, raw materials, transportation networks, etc. Multiple issues arise when guiding others. It turned out that most of the problems with marketing and manufacturing were of a similar magnitude. Women business owners face challenges such as fluctuating prices, difficulty securing financing, and little government support. Lack of adequate legislation, unethical practices, and other factors all work against the advancement of women business owners in India. Financial, marketing, production, workplace, and work-family concerns affect the vast majority of women business owners regardless of education, age, marital status, caste, religion, sort of organization, ownership type, experience, or degree of investment (Kumar, 2014).

- **Technical Limitations** – Lack Management expertise and knowledge in Budgeting and Financial aspects

The respondent's main problems were recognized as a lack of long-term finance, a persistent and recurrent requirement for operating capital, and a protracted procedure to receive financial aid. In India, banks and other financial institutions are often skeptical of women entrepreneurs. Bankers perceive female loonies to be more dangerous than male loonies. To justify lending money to women business owners, banks utilized unrealistic and inappropriate collateral. Women entrepreneurs have restricted access to finance as they are concentrated in poor rural regions with few possibilities for borrowing money.

Bad shop placement, a lack of transportation, and fierce competition from larger, more established firms are just a few of the obstacles that women company owners have had to overcome during the marketing process. Female company owners suffer from a lack of information about where to source their raw materials and how to negotiate prices. A shortage of raw materials is one of the main obstacles preventing the expansion of women-owned businesses in India. Lack of machine or equipment availability, lack of training facilities, and a shortage of workers were among problems in the manufacturing sector. The high price of the necessary machine or equipment is the primary source of manufacturing difficulties. The high manufacturing expenses of various commercial activities have a detrimental influence on the growth of female entrepreneurs (Kumar, 2014).

- **Government Assistance** – Red Tapism, Policies and Assistance

Delay in processes that encourages entrepreneurs to carry on the business has always been lagged by the public authorities but this has changed in last few years. There are various initiatives that has been initiated to help the entrepreneurs and specially women entrepreneurs. Over the past few years, female entrepreneurs have been actively encouraged and their contributions acknowledged on the national economic agenda. Numerous programs, both governmental and private, have been created to provide momentum to capitalize on this opening.

These initiatives aim to improve women's economic empowerment by bridging the gender finance gap, increasing access to mentorship, and strengthening ties to the marketplace. There is a lot of room for replication and growth in these programs, some of which are listed here because of the promising results they are beginning to produce.

According to new regulations issued by the Ministry of Micro, Small, and Medium Enterprises, all government agencies are obligated to make 25% of their purchases from MSME businesses, of which 3% must be held by women. The government of Telangana created WE Hub in 2018 to encourage women-run businesses by facilitating their access to funding, physical space, advisory services (including legal and marketing advice), and mentorship. Twenty-five startups have been supported by this initiative, and sixteen of them have received loans of up to INR 2 crore each.

Over INR 500 crore has been invested in 90,000 women, over 50,000 micro businesses have been launched, and 4 lakh women have participated in Mann Deshi Foundation's business school and chamber of commerce programmes as a result of their successful finance and skills development project for rural women entrepreneurs. The All-India Road Show for Women's Economic Empowerment through Entrepreneurship (AIRSWEEE) was launched in 2016 by TiE Global with financing support from the US State Department to encourage women to start their own businesses in India's tier-2 and tier-3 cities. In all, 575 women business owners from 106 cities and 20 states in India have registered in a coaching and mentorship programme. These mentees have gone on to mentor over 2,500 other women as part of AIRSWEEE's established pay-it-forward philosophy.

To foster a more welcoming online community for women where they may share and receive support, as well as expand their professional and personal networks and do business, SHEROES is creating the Women's Internet. The SHEROES app, along with Maya, BabyGogo, and SHEROES Workforce, may all be found on the SHEROES Network. There are 16 million active users on the SHEROES network. The private sector in India has also been running effective skill development initiatives. The goals of Godrej's Beauty-preneur programme, a 12-month entrepreneurship development program, are to (i) improve participants' technical abilities, (ii) help them mature as people, (iii) teach them about money, and (iv) teach them how to manage and expand a small firm. As a result of this, they were able to contact approximately 2,500 women in 9 different states. Many of these effective programs may be used again (Rajan, Chawla and Sahni, 2019).

In addition, the government has a significant window of opportunity to play a larger and more nuanced role in shaping India's entrepreneurial scene in a way that benefits women. Even in the business of need, talents count. Government initiatives that encourage women to expand their skill sets through formally structured training programs would be a great way to do this. Promoting entrepreneurial skills is essential for necessity entrepreneurship, and they can be found in most causal arrangements. Entrepreneurship out of need is more likely to occur among women if they possess talents, regardless of whether or not they know anybody else who is an entrepreneur or intend to become one themselves. Entrepreneurial aspirations, along with other factors, are shown to encourage women to start businesses out of necessity (P. Sendra-Pons et al, 2021).

RESEARCH METHODOLOGY

To analyze the data, SPSS and AMOS software were used. First, to extract the distinct factors, an exploratory factor analysis (EFA) was performed using VARIMAX rotation on a sample of 291. Results of the exploratory analysis rendered eight distinct factors.

Factor one was named as the Technology (TECH), and items related to this factor were as Non-availability of agency to guide, Lack of management experience and Lack of knowledge & skill

in budgeting. Factor two was labelled as Labour (LABR), and the items were Non—aggressive promotion and advertising, Lack of skilled labour and Low productivity of labour.

Factor three and four were labelled as Personal (PRSNA and PRSNB), and some of the items were Over-coming belief that women are not as serious as men and Lack of confidence to start business etc. The fifth and sixth factor was related to Finance (FINA and FINB), and the items were as Price fluctuations and variation in raw material, Difficulty in financing of enterprise, Lack of working capital and High costs involved in transportation.

The seventh factor was Input (INPT), and the items were Pre assessment of the demand for product, Poor knowledge of market and competition and Non-availability of raw material. The eighth factor was Govt Intervention (GOVT) and items were as Poor Govt. assistance, Govt. policies do not help petty entrepreneurs and Red tapism.

Through SPSS Factor Analysis eight (8) factors got identified with KMO of ~.58. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in your variables that might be caused by underlying factors. These eight factors extracted through EFA explained 80.49% of the total variance. Rotated Component Matrix extracted from SPSS highlighted below in Table 2 for reference.

Validity analysis of the factors are highlighted below in Table 1 with Average Variance Extracted (AVE) and Composite Reliability (CR) and the factors have achieved good discriminant validity (Hair et al, 2009). AVE is a measure of the amount of variance that is taken by a construct in relation to the amount of variance due to measurement error (Fornell & Larcker, 1981). To be specific, AVE is a measure to assess convergent validity. Convergent validity measures the level of correlation of multiple indicators of the same construct that are in agreement. The factor loading of the items, composite reliability and the average variance extracted have to be calculated to determine convergent validity (Hair et al, 2014). The value of AVE and CR ranges from 0 to 1, where a higher value indicates higher reliability level. AVE is more than or equal to 0.5 confirms the convergent validity (Shrestha,2021).

Table1: Validity Analysis of Factors

Factors	CR	AVE
Technical Issues	.79	.57
Personal (PRSNA)	.85	.75
Personal (PRSNB)	.79	.66
Finance (FINA)	.79	.66
Finance (FINB)	.62	.46
Labour	.69	.44
Input	.82	.61
Government	.73	.48

Author's compilation

Table 2: Rotated Component Matrix – Factors extracted from SPSS

Rotated Component Matrix								
	Component							
	1	2	3	4	5	6	7	8
TECH2	0.909							
TECH1	0.820							
TECH3	0.486							
PRSNL1		0.909						
PRSNL2		0.825						
FIN4			0.821					
FIN1			0.811					

INPT1				0.919				
INPT2				0.696				
INPT3				0.724				
FIN3					0.790			
FIN2					0.550			
LABR1						0.823		
LABR2						0.639		
LABR3						0.504		
PRSNL4							0.890	
PRSNL3							0.730	
GOVT2								0.889
GOVT3								0.586
GOVT1								0.577
Extraction Method: Principal Component Analysis.								
Rotation Method: Varimax with Kaiser Normalization.								
a. Rotation converged in 22 iterations.								

CONCLUSION

The days of women spending their whole lives inside the home are long gone. Women now are just as likely as men to create new narratives of unparalleled achievement through their own ingenuity and perseverance. Every year, the number of women who start their own businesses grows, and these days, you may find them in fields that have never before been explored by female entrepreneurs. Women's upheaval as bureaucrats, professionals, and executives is largely attributable to the increased opportunities they have in these sectors. Now that they've started their own businesses, they're facing the challenges and rewards of economic independence. Women are turning their traditional abilities into a source of income by opening up shop from their homes in a variety of industries, such as textiles, cooking, embroidery, shops, and crafts. If we look around us we'll see women in all sorts of positions of power, from the bench to the boardroom to the legislature to the spotlight. Women are business owners and authors and scientists and activists and politicians and directors and actresses and directors.

Banks and other financial institutions should improve the ability of women company owners to have access to capital by creating and distributing goods and services specifically designed to satisfy their unique financial requirements. Make changes to rules, processes, and systems to make them more welcoming to female business owners. Lessen the complexity of the approval procedure to save customers time and gas money when they visit a branch. Reduce costs by standardizing the process of appraising loans. Use focused methods of sourcing and advertising, raise customer consciousness about your offerings, and investigate the feasibility of branchless banking, often known as the "doorstep financial delivery model," to see whether it may save you money.

The locations of NGOs, microfinance institutions, and self-help groups, as well as their clients' cash flow cycles and repayment capacity, are typically better understood through partnerships with these entities. Partnerships like this have the potential to lower transaction costs and better control risk. Integrate distribution methods including phone-a-financial-product hotlines, internet banking, and mobile banking. Take away the need for a male relative's approval before applying for a loan. Applicants for loans from some or most government-sponsored financial institutions must have either their husband or, if they are single, their father, sign the paperwork. For women business owners to be taken seriously, banks and other financial institutions need to change their procedures to allow them to sign loan applications and other necessary paperwork using their own names.

Affinity and self-assurance with the investor community and funds dedicated to women-led firms may be cultivated through women-focused fundraising efforts, such as dedicated pitch days. Champion investor amplification: elevating the profile of people who invest in and mentor successful female company owners. Multiple types of media, both specialized and broad, are praising relatable role models. Media outlets in India's urban, semi-urban, and rural areas have begun to regularly feature female and male entrepreneurs in an effort to dispel common misconceptions about gender roles. Institutions of higher education should promote entrepreneurialism in methods that are inclusive of both sexes (through, for example, case studies and guest lecturers). Across metro areas and tier 1,2,3 cities, women-only networks and forums are fostering formal links with investors, suppliers, and customers. Ad campaigns supported by the government that feature entrepreneurs and their families, highlighting the positive effects on their communities as a whole, and distributed through both traditional and digital channels, such as YouTube.

Workshops, certifications, and training programs tailored to certain industries, such as e-commerce, home-cooking, tailoring, and counseling, that are welcoming to women and expanding their opportunities. Education and training programs delivered via the internet, such as virtual start-up accelerators, that focus on imparting both theoretical and practical knowledge in the realm of business, as well as providing participants with access to relevant tools, virtual mentors, and social networks in order to encourage ongoing participation. Corporate activities, like Amazon Saheli, promoting digital literacy to help women business owners set up shop online and reach customers outside their immediate area. Increase the prevalence of Self-Help Groups (SHGs) in India. Help women's self-help groups (SHGs) succeed by expanding and accelerating programs like Startup Village's Entrepreneurship Program, which has a clear mission to empower women in business. Place college-educated women in fields where they were historically underrepresented, like agri-training.

It was also noticed during data collection that training, prizes, and rewards were quite helpful in the entrepreneurship development programme, thus it is recommended that there be good and relevant training "tie-ups" at different levels. We observed that locally and global interaction were the most common sources of inspiration for business owners. Because of its proven importance to business success, "communication-media-mix" has to be developed and used further. Entrepreneurs have reported a lack of resources like "suitable sheds and plots," "financial assistance," "availability of raw material," "availability of fuel/power and water storage facilities," "transport," etc. Government and funding agencies need to take these into account for a variety of reasons. It also reflects the business owners' attempts to speed up and make available numerous items of interest, which they might achieve with the assistance of organizations working closely with them. Motives that have a strictly sociological context, such as "up grading of women standing' in the society," "acquiring leadership," and "creating better job," were found to have a significant impact on economic and social motivation. To aid entrepreneurs in developing high-level skills, competencies, and potential for their businesses, it is proposed that basic and advanced courses on "Management of Motivation" be held on a regular basis.

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WOMEN'S EDUCATION AND THEIR ECONOMIC CONDITION IN MADHYA PRADESH, INDIA

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ABSTRACT

Literacy is an important demographic element and it is a good measure of human progress. It is essential for social reconstruction, improvement in quality of life and preparation of womanpower for rapid development. Education inculcates new ideas for betterment of society in particular and nation in general. This paper is present the demographic changes and gender inequality in the Indian and the state of Madhya Pradesh from available data on education, enrolment ratio, sex ratio of the state and India. The Methodology is based on secondary data taken from census of India 2011 reports, NFHS-5 and other published documents. This study gives an overall demographic and gender inequality picture of Madhya Pradesh (M.P.) to draw government's attention to the need and to bring down gender inequality. We recommend that government should promote female literacy through planned interventions by state level studies, augment social infrastructure and lay special emphasis on sex ratio and enrolment of student.

Keywords: Women's education, economic condition, Literacy, sex ratio.

INTRODUCTION

“Educating a man is educating an individual, while educating a woman is educating a family” –
Jawaharlal Nehru

Inequality between men and women is one of the most crucial disparities in many societies, and this is particularly so in India. Differences in female and male literacy rates are one aspect of this broader phenomenon of gender-based inequality in India. In much of the country, women tend in general to fare quite badly in relative terms compared with men, even within the same families. This is reflected not only in such matters as education and economically to develop talents, but also in the more elementary fields of nutrition, health, and survival.

Women have been sharing half the sky so they cannot be neglected in having their active participation for the development of a country. The role of women can be treated in the direction of improving their social and economic aspects. The world economic profile of women shows that women represent 50% of the population 30% of the labour force constitutes of women, perform 60% of the working hours but unfortunately receive only 10% of the world's income and own less than 1% of the world's property (FAO, 1980).

Although women and men do not enjoy equal status in terms of enjoyment of power or possession of property (Dulfo, 2011), the contribution of women to economic development of a country cannot be undefined.

In earlier times, condition of women across the globe was worse. They were treated differently in all spheres of life social, cultural, economic, and political and were also devoid of their varied rights including rights to equal education. However after culmination of world war II, various international organization like- UNESCO, World Bank emerged which played a significant role in driving the international education agenda. Thus, in order to make a transition towards modern world, it became imperative for the world community to focus on women education. Further, collaborative efforts were also taken at international level so as to encourage the participation of women in public life and enhance their contribution towards economic development.

Madhya Pradesh is one of the poorest in India with over 37% of its total population of 60 million living below the poverty line. Schedule castes (SCs) and scheduled tribes (STs), two of the most marginalized groups, constitute 35% of the population and account for 60% of the poor. Gender based discrimination is reflected in the unequal sex ratio (930/1000) against an already worrying national average of 940/1000 in 2011 and lower human development indicators for women.

It has been often argued that education is key to giving women better control over their lives. The eleventh (2007-2012) and twelve five year plan (2012-2017) have consistently envisaged that achieving high female literacy is an inevitable step towards achievement of inclusive growth and gender empowerment. There have been a number of initiatives adopted off late by the government of India such as “**Beti Bachao Beti Padhao**” Its name was changed to **BADLAV (Beti Apki Dhan-Laxmi Aur Vijay-Laxmi)** on 4 July 2019, and “**Servasiksha Abhiyaan**” to enhance the literacy rate of females in India. Government of Madhya Pradesh is also taking number of steps to incentives parents and children and children to enhance female education.

OBJECTIVES OF THE STUDY

The study aims to achieve the following objectives:

- To analysis the current status of women education in MP.
- To analysis the current status of women economic condition in MP.
- To study the factors that hinder in women education.
- To provide valuable suggestions in order to improve the condition of women education in Madhya Pradesh so as achieve new height in an economic development.

METHODOLOGY

The study is purely conceptual and descriptive in nature. It has been done by identifying, reviewing and analyzing the findings and conclusions of prior research work pertinent to linkages between women education and economic condition in Madhya Pradesh. Further, the study is also an attempt to describe the current state of women education in India in order to identify the varied issues which have remained unaddressed till date and needs more attention. To address the major objectives of the study secondary data have been used like books, magazines, journals, various government organizations website.

RESULT & DISCUSSION

Table1: Literacy rates of males and females in India & Madhya Pradesh.
(Figure in Percentage)

Year	India			Madhya Pradesh		
	Male	Female	Total	Male	Female	Total
1991	63.9	39.2	52.21	63.9	39.4	44.67
2001	76.0	54.0	64.84	76.06	50.29	63.74
2011	82.14	65.46	74.04	78.73	59.24	70.63

Source: census, 2011

It can infer that literacy rate of both men and a woman has increase over 3 decades. In case of men, literacy rate has risen 18.84%, in case of women it has risen 26.26% and total has risen 21.83% in India. In Madhya Pradesh men literacy rate has risen 14.83%, women literacy rate has risen 19.84% and total literacy rate has risen 25.96%. It shows that there exists a gender inequality in the sphere of education. As per 2011 census, at that time the literacy rate for women in only 65.46% against 82.14% of men, the education gap between male and female are 16.68 in India, and in the MP literacy rate for the women in only 59.24% against 78.73% of men, the education gap between male and female are 19.49%.

Table2: Sex ratio according to National Family Health Survey-5.

India/state	NFHS-5 (2019-21)	NFHS (2015-16)
India	1020*	991
Madhya Pradesh	970	948

Source: National Family Health Survey-5

The table shows as per the NFHS-5 (2019-21), the sex ratio of the population (females per 1000 males) for the country was estimated as 1020 and for the state of Madhya Pradesh was estimated as 970. In the India sex ratio has risen 29 females are more than total males and in Madhya Pradesh sex ratio has risen 22 females are more than total males.

Table3: Number of school by level of school education, 2020-21.

India/State	Total	Primary	Upper primary	Secondary	Higher secondary
India	1509136	774742	442928	151946	139520
Madhya Pradesh	133271	67968	47399	8470	9434

Source: UDISE+ 2020-21 (Unified, District Information System for Education)

In this table we shows that number of school by level of school education. By the level of education most of the schools of primary school in India and also in Madhya Pradesh. Something can be understood from this data that as the lining of education by the way number of school are reduced.

Table: 4 Number of teachers by management, gender and class taught, 2020-21.

India/ state	Number of teachers by gender & class taught- Government											
	Total			Pre-primary			Pre-primary & primary			Primary only		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
India	2773 901	215319 8	49270 99	13391	19727*	3311 8	1365 87	102019	238606	1153 673	967332 005	2121 005
Madhya Pradesh	2038 78	101607	30548 5	8	5	13	85	57	142	1166 61	57602	1742 83

Source: UDISE+ 2020-21 (Unified, District Information System for Education)

Table shows that number of male teachers are more than female teachers in all level of school education except in pre-primary school with the 19727 females' teacher against 13391 male teachers in India. In the Madhya Pradesh number of teachers are more than females' teachers in all level of school education.

Table: 5 enrolments of students by gender, school management and level of school education 2020-21.

India/ state	Enrolment-Government											
	Pre-primary			Primary (1 to 5)			Upper Primary (6 to 8)			Elementary (1 to 8)		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
India	12458 83	1233 033	2478 916	34173 798	34483 548*	68657 346	17445 726	1838957 5*	35835 301	5161 924	52873 123*	10449 2647
Madhya Pradesh	8947	8757	1770 4	19782 17	20530 36*	40312 53	12124 25	1286524 *	24989 49	3190 642	33395 60*	65302 02

Source: UDISE+ 2020-21 (Unified, District Information System for Education)

The table no 5 represent the enrolment of student by the gender and level of education in government school during the year 2020-21. The girls enrolment at pre-primary level is 1233033 less than boys enrollment, at secondary level is 34483548 more than boys enrolment, at upper primary level is 18389575 more than boys enrolment and at the elementary is 52873123 more than boys enrolment.

Factors hat Hinder Women Education

After 75 years of independence, women empowerment is a most challenges issue in India still now. The Factors that hinder in women empowerment are-

- Lack of parent education: due to lack of education of parent, not concern about girls education and for the reason they need to depend on men or others for.
- Gender inequality: the root cause of gender inequality in Indian society lies in its patriarchy system. Educating girls child is still seen as a bad investment because she is bound to get married and leave her paternal home one day (shali, S.K-2018)
- Parenting attitude: Negative paternal attitude towards educating daughters is one of the important challenges to promote girl's education in India. (Kumar, J. & Sangeeta-2013)
- Lack of awareness: Government has launch different schemes, policies and program for concerns of girl due to lack of education, lack of awareness they are not able to take the benefits of that and most of Government schemes fail and not implement properly due to awareness of people.
- Early marriage: when girls are forced to marry young, they are often pulled out of school at a very critical age in their development. The transition from primary to secondary education is key for girls to gain the life skills they need to escape the cycle of poverty. Yet this is often the same time that many girls leave school due to early marriages. (king, E. & Winthrop, R, - 2015)
- Financial problem: India more than half of the population live in below property line. So, they are not able to equally spend money for their child education. So, they prefer to send their boy child instead of girl for education.

Schemes of Madhya Pradesh Government for Women

- Beti Apki Dhan-laxmi aur Vijay-Laxmi
- Ladili Laxmi Yojana
- Lado campaign
- Shaurya Dal
- Mangal Diwas Yojana
- Swagatam Lakshmi Yojana
- Usha Kiran Yojana
- Gaon Ki Beti Yojana
- Balika Shiksha Protsahan Yojana

CONCLUSION

At the conclusion, it can say that education of women education is equally important as men for the development of a nation. But India is still surviving for women education. No doubt women literacy rate has increase after independent but half of the women population are illiterate. Which greatly hamper in the progress of the nation. At last 15 years, MP Government has launched many schemes for girls such as Beti Bachao Abhiyan, Lado Campaign, Surya Dal, Mangal Diwas Yojana, Gaon Ki Beti Yojana, and Balika Shiksha Protsahan Yojana. We found girls literacy rate improved but situations are not satisfactory for girls. Government not only responsible for the safe and respected life of girls but also this is our also moral duty do individually because of today's girl tomorrow woman. In my opinion "Engaging today's girl is to empower tomorrow's women".

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YOUNG GENERATION INVESTORS' CONFIDENCE TOWARDS THE INDIAN STOCK MARKET WITH REFERENCE TO TIRUNELVELI DISTRICT OF TAMIL NADU

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ABSTRACT

The Indian securities market has been attracting considerable attention in recent years, especially after the liberalization of the economy. Since India started its economic reforms in the early 1990s, it has ensured its current position as one of the largest developing countries in the world. The financial sector in India has developed quite significantly in both size and sophistication. The main objective of the study is an attempt to assess the young generation investors' confidence towards the Indian stock market. The primary data have been collected from young generation investors' of Indian stock market in Tirunelveli city and secondary data were collected from reports published by the Securities and Exchange Board of India (SEBI), National Stock Exchange (NSE), Bombay Stock Exchange (BSE), journals, magazines, periodicals and dailies. The sample size for the study was 81 investors' in Tirunelveli City. Simple percentage analysis and chi square test were used to analyze the data. It is concluded that the central government and regulating body (SEBI) may take necessary steps to enhance their perceptive level which will instill confidence among the young generation investors who have gained a low level of confidence so far towards the Indian stock market.

Keywords: Stock Market, Young Generation Investors, Confidence

1. INTRODUCTION

The Indian securities market has been attracting considerable attention in recent years, especially after the liberalization of the economy. Since India started its economic reforms in the early 1990s, it has ensured its current position as one of the largest developing countries in the world. The financial sector in India has developed quite significantly in both size and sophistication. Subha ¹(2008), "Indian Capital Markets – A Road Ahead", addressed the current issues in the Indian capital market, lack of individual participation and the ways of restoring investor confidence. The article concluded that the responsibility of creating an environment of trust and confidence lies with the regulators, stock exchange and companies. Each of them should act in a responsible way and provide a healthy atmosphere for the functioning of an efficient capital market. Santi Swarup ²(2003), "Measures for Improving Common Investor Confidence in Indian Primary Market: Survey", concentrates on the decisions taken by the investors while investing in primary markets. The study reveals that the sample investors give importance to their own analysis as compared to broker's advice. They also consider market price as a better indicator than analyst recommendations. The study also identifies factors that are affecting primary market situation in India. Issue price, information availability, market price after listing and liquidity emerge as important factors. This study suggests that investors need to be assured of some return and current level of risk associated with investment in the market is very high. They have had bad experience in terms of lower market price after listing and high issue price. Accordingly number of measures in terms of regulatory, policy level and market oriented were suggested to improve the investor confidence in equity primary markets. However, this paper does not highlight the measures for improving investor confidence in secondary market. Yarram Subha Reddy ³(1998) studied the efficiency of stock market. The operational, allocation and informational efficiency of the market are examined and the weak form information efficiency of Bombay Stock Exchange is analyzed. It is concluded that Indian

market is not efficient in weak form which implies that profitable opportunities exist for investors to form trading decisions based on past prices and to earn more than what is earned under a policy of buy and hold. It implies that investors with more ready access to information on trading prices and quantity have better opportunities for trade than other investors who do not have ready access to such information. Unequal access to information leads to transfer of resources from those with less access to those with more access, which affects investor's confidence. Therefore, efforts should be taken to improve not only the informational efficiency but also the operational and allocation efficiency of the market. For this, SEBI should make efforts to create information storage and retrieval systems to improve informational efficiency.

2. SIGNIFICANCE OF THE STUDY

Capital markets play a pivotal role in the growth of an economy and development of the overall financial system. The real strength of the Indian securities market lies in the quality of regulation. The market regulator, Securities and Exchange Board of India (SEBI) is an independent and effective regulator. It has put in place sound regulations in respect of intermediaries, trading mechanism, settlement cycles, risk management, derivative trading and takeover of companies. There is a well designed disclosure based regulatory system. Information technology is extensively used in the securities market. The NSE and BSE have most advanced and scientific risk management systems. The growing number of market participants, the growth in volume of securities transactions, the reduction in transaction costs, the significant improvements in efficiency, transparency and safety, and the level of compliance with international standards have earned for the Indian securities market a new respect in the world. Gupta ⁴(2002) has rightly pointed out that improving stock market efficiency, enhancing transparency, checking unfair trade practices and bringing the Indian capital market up to a certain international standard are some of the major objectives of the capital market reforms. Due to this reforming process, the Securities and Exchange Board of India (SEBI) was formed as the apex regulator of the capital market. The new regulatory framework laid down by SEBI sought to strengthen investor protection by ensuring disclosure and transparency rather than through direct controls. The SEBI has apparently made progress in achieving its major objectives such as to protect the interests of investors in securities and to promote the development of, and to regulate, the securities market and for matters connected therewith or incidental thereto.

3. STATEMENT OF THE PROBLEM

India's equity market after the economic reforms of 1991, showcase one of the greatest achievements of India's liberalization policies. The Sensex, which stayed well short of the 5,000 mark for most of the 1990s, has since then risen to cross 20,000 in 2008 and more than 30,000 recently, with an associated climb in market capitalization. Across the world, equity culture is considered to be widespread and retail investor presence is substantial.

As per the latest Survey of Consumer Finances conducted by the Federal Reserve in 2013 about 49% of United States' families were direct or indirect owners of publicly traded stock in 2013. The essential principle followed by the Securities and Exchange Commission in the USA, for example, is to encourage retail investor activity by, in the first instance, seeking to make markets fair and safe. Thereby, regulators are paying special attention to the retail investor, whose exposure to the market either through direct investments or through instruments issued by intermediaries like mutual and pension funds has been increasing. However, unlike many of the world's stock markets, most trades on the Chinese stock market are made by individual retail investors, rather than institutional investors'. Regulators in charge of stock markets have both promoted retail investor interest in market investments and put in place means to protect them once they have entered the market.

The Indian stock market is expanding in scope, size and scale day-by-day and so is the number of investors as in the recent past India, has seen a move in the positive trajectory as Indian households are warming up to financial products by putting a larger part of their financial savings into shares and bonds. The improvement in performance of equity markets over the years depicted rising confidence of investors in Indian equity markets on account of strong growth prospects of the Indian economy.

4. OBJECTIVE OF THE STUDY

The following are the objective of the study:

1. To assess the young generation investors' confidence towards Indian stock market in Tirunelveli city of Tamil Nadu.

5. RESEARCH METHODOLOGY

This part explain the methodology used in this study. The methodology includes data and sources of data, sample size, area of the study and framework of analysis. The study is based on primary and secondary data. Primary data have been collected from 81 respondents through a structured interview schedule covering young generation stock market investors' from Tirunelveli city of Tamil Nadu. The secondary data have been collected from various books, magazine, journals, news papers and websites. The sampling technique followed in this study is Judgmental sampling method. In order to analyze the collected data, the statistical tools such as simple percentage analysis and chi square test were used.

6. REVIEW OF LITERATURE

The researcher has reviewed previous studies related to young generation investors' confidence towards Indian stock market.

Shahid ⁵(2008) while discussing the last melt down of the capital market across the globe, stated that markets have become more complex, institutionalized, and more and more cross border investments are pouring in. The author has stressed the need for investor education and their confidence as today investors are attracted by the depth, quality and integrity of markets, besides expecting valuable returns. With the extensive usage of technology, in particular, the internet, investors are now able to access a wider range of investment opportunities across countries, regions and continents. Furthermore, investors have become savvy, demanding more reliable, useful and timely information, and advocated that investor education should become a top priority not only to market regulators but also for stock exchanges.

Faten and Hamadi ⁶(2009) concluded that Tunisian stock market investors were not over-confident. Majority of the population, i.e., 74% were found to be under-confident, very sensitive, defiant and very much hesitant to the reaction and opinion of others. Tunisian investors were found to be very sensitive to rumors and suspected them to be private information. From the paper it was evident that 85% of the investors tend to resume and restrict voluntarily their data basis to some specific set of data. The Tunisian investors judged that the market's perception and degree of enthusiasm which was shown towards the stock was sufficient to decide about stock's perspectives. About 70% of the investors decided not to persevere but to revise quickly their decisions and anticipations after any mistake so that they could limit their potential losses.

Julan Du ⁷(2004) in his paper, "Heterogeneity in Investor Confidence and Asset Market under-and over Reaction", developed a behavioural finance model that may explain under reaction and over reaction in asset markets from the perspective of heterogeneous investors with different confidence levels. The model explains the occurrence of under reaction by the sequential entry of investors with different confidence levels in interpreting earnings shocks. It is shown that in repeated trading episodes with repeated earnings shocks, the average investor confidence level

would be higher as a result of the biased self-attribution and confirmatory bias, causing over reaction more likely to occur. Also, the higher average confidence level of investors gauged by the later timing of winding up their asset holding positions also makes over reaction more likely to occur.

Neelamegam and Srinivasan ⁸(1996) examined the adequacy of various protective measures offered under the existing Companies Act 1956, Securities Contracts (Regulation) Act 1956, and Securities and Exchange Board of India Act 1992 and also examined the trading activities of primary market and secondary market in India. They have found from their study, various protection measures were taken by regulators through the legislative system. The investors have lost their confidence which is revealed in the increasing trend of grievances and complaints even after the establishment of the SEBI and administrative system of securities market. The same view has been expressed by Mohana Rao (1996), Krishna Kumar Agarwal (1997), and Sakriya (2000) in their various studies.

Yarram Subha Reddy ⁹(1998) studied the efficiency of stock market. The operational, allocation and informational efficiency of the market are examined and the weak form information efficiency of Bombay Stock Exchange is analysed. It is concluded that Indian market is not efficient in weak form which implies that profitable opportunities exist for investors to form trading decisions based on past prices and to earn more than what is earned under a policy of buy and hold. It implies that investors with more ready access to information on trading prices and quantity have better opportunities for trade than other investors who do not have ready access to such information. Unequal access to information leads to transfer of resources from those with less access to those with more access, which affects investor's confidence. Therefore, efforts should be taken to improve not only informational efficiency but also the operational and allocation efficiency of the market. For this, SEBI should make efforts to create information storage and retrieval systems to improve informational efficiency.

Jain ¹⁰(1999) in his study on restructuring capital market observed that the agenda for further reforms of capital market in India broadly comprise the developments in the debt market, revival of equity markets and improved disclosures and corporate governance standards, reforms in insurance and pension funds to enable flow of funds to infrastructure and the emergence of financial derivatives and risk management products.

Santi Swarup ¹¹(2003) in her research article "Measures for Improving Common Investor Confidence in Indian Primary Market: Survey", concentrates on the decisions taken by the investors while investing in primary markets. The study reveals that the sample investors give importance to their own analysis as compared to broker's advice. They also consider market price as a better indicator than analyst recommendations. The study also identifies factors that are affecting primary market situation in India. Issue price, information availability, market price after listing and liquidity emerge as important factors. This study suggests that investors need to be assured of some return and current level of risk associated with investment in the market is very high. They have had bad experience in terms of lower market price after listing and high issue price. Accordingly number of measures in terms of regulatory, policy level and market oriented were suggested to improve the investor confidence in equity primary markets. However, this paper does not highlight the measures for improving investor confidence in secondary market.

Satish ¹²(2004) opined that investors from seven major cities in India had a preference for mutual funds compared to banking and insurance products. Investors expected moderate return and accepted moderate risk. Sixty percent of investors preferred growth schemes. The image of the Association of Mutual Fund Company acted as a major factor in the choice of schemes. The investors had the same level of confidence towards shares and mutual funds.

Neeraj Manini and Sanjeev Sharma¹³(2009) have analyzed the satisfaction level of retail investors in relation with number of capital market reforms taken by government and SEBI from time to time in post liberalized period. The study can be concluded that, a large number of investors seemed to be satisfied with reform measures taken by SEBI, but on the other hand a considerable number of investors also seemed to be not aware of many of the measures. Therefore, there is a need for an education of the investors with these measures to permit a growing number and proportion of Indian families to participate more directly in and enjoy the benefits of expanded mark economy. It will be necessary to build knowledge of the market and to establish trust and confidence in its fairness.

7. HYPOTHESES TESTING

The following hypotheses have been framed for the study

1. There is no significant association between age and young generation investors' confidence towards Indian stock market.
2. There is no significant association between educational qualification and young generation investors' confidence towards Indian stock market.
3. There is no significant association between occupation and young generation investors' confidence towards Indian stock market.
4. There is no significant association between annual income and young generation investors' confidence towards Indian stock market.

8. DATA ANALYSIS

Young generation investors' confidence towards Indian stock market is analyzed using frequency analysis and chi square test.

Frequency Analysis for Socio – Economic Variables and Investment Analysis

To study the socio- economic profile and investment analysis of Young generation investors' confidence towards Indian stocks market is frequency analysis is applied. The socio – economic variables such as place of residence, gender, age, educational qualification, occupation, annual income, monthly savings, financial advisor, savings objective, number of dependents and investment analysis variables such as financial instrument, purpose of behind investment, sector, time period, monitor, traded on the BSE/NSE, source of investment advice, source of your investment decision, factors guiding investment decision, stock market knowledge and prefer shares for investment are considered for the study.

Table 1: Socio – Economic Profile of the Respondents

Demographic Profile		Frequency	Percent
Place of Residence	Rural	26	32.1
	Urban	46	56.8
	Semi - Urban	9	11.1
Gender	Male	81	100
	Female	0	0
Age	15 - 20 years	12	14.8
	21 – 25 years	27	33.3
	26 - 29 years	42	51.9
Educational Qualification	Up to HSC	3	3.7
	Diploma	5	6.1
	Under Graduate	38	46.9
	Post Graduate	31	38.2
	Others	4	4.9

Occupation	Employed	30	37.0
	Profession	20	24.7
	Business	8	9.9
	Student	19	23.5
	Others	4	4.9
Annual Income	Less than Rs 2 lakhs	23	28.4
	Rs 2 to less than 4 lakhs	29	35.8
	Rs 4 to less than 6 lakhs	22	27.2
	Rs 6 lakhs and above	7	8.6
Monthly Savings	Less than Rs 5,000	24	29.6
	Rs 5000 to less than 10,000	26	32.1
	Rs 10,000 to less than 15,000	24	29.6
	Above Rs 15,000	7	8.6
Financial Advisor	Yes	77	95.1
	No	4	4.9
Savings Objective	Purchase of Property	38	46.9
	Wedding	0	0
	Holidays	0	0
	Unforeseen Expenses	0	0
	Healthcare	14	17.3
	Retirement Benefit	0	0
	All the above	18	22.2
	Others	11	13.6

Total Number of Respondents 81

It is understood from table 1 socio – economic profile of the respondents that 56.8 percent of the respondents belong to urban areas, 32.1 percent of the respondents belong to rural areas and only 11.1 percent of respondents are from semi urban areas. It is concluded from the analysis that 56.8 % of the respondents belong to urban areas.

It could be inferred from above table 100 percent of the respondents are male who have invested their money in various securities in Indian stock market.

It is understood from above table 51.9 percent of the respondents belong to the age group of 26-29 years, 33 percent of the respondents belong to the age group of 20-25 years and only 14.8 percent of the respondents fall in the category of less than 20 years. It is found from the analysis that 51.9% of the respondents belong to the age group of 26-29 years.

It is learnt from above table 46.9 percent of the respondents are under graduate degree, 38.2 percent of the respondents are postgraduates, 6.1 percent of the respondents are diploma holders, 4.9 percent of the respondents belong to others category and only 3.7 percent of the respondents have completed higher secondary course or less. It is observed from the analysis that 46.9% of the respondents are under graduate degree.

It is known from above table 37 percent of the respondents are employees, 24.7 percent of the respondents are professionals, 23.5 percent of the respondents are students, 9.9 of the respondents have involved in business and only 4.9 percent of the respondents belong to others category. It is observed from the analysis that 37 percent of the respondents belong to “employed category”.

It is known from above table 35.8 percent of the respondents’ income range is Rs 2 to less than 4 lakhs, 28.4 percent of the respondents’ income less than Rs. 2 lakhs, 27.2 percent of the respondents’ income range is between Rs 4 to less than 6 lakhs and only 8.6 percent of the

respondents belong to the category of Rs 6 lakhs and above. It is noted from the analysis that majority of the respondents' (35.8%) annual income range is Rs 2 to less than 4 lakhs.

It is observed from above table 32.1 percent of the respondents' savings is Rs 5000 – less than Rs 10,000 and each 29.6 percent of the respondents' savings is less than Rs 5,000, and Rs 10,000 to less than 15,000 and only 8.6 percent of the respondents' savings is Rs above Rs. 15,000. It is noted from the analysis that 32.1% of the investors have monthly savings ranging between Rs 5,000 – less than Rs 10,000.

It is deduced from above table 95.1 percent of the respondents have financial advisors and only 4.9 percent of the respondents do not have financial advisors for investing in Indian stock market. It is important to note that majority of the respondents (95.1%) have financial advisors towards investing in Indian stock market.

It is known from above table 46.9 percent of the respondents have invested for the purpose of purchase of property, 22.2 percent of the respondents have collective savings objective i.e., more than a single objective, 17.3 percent of the respondents save their money with the objective of health care and 13.6 percent of the respondents have invested their money for other than the above purposes. It is clear from the analysis that 46.9 percent of the respondents prefer to save their money with the collective savings objectives than a single objective.

Table 2: Investment Analysis of the Respondents

Investment Analysis		Frequency	Percent
Financial Instrument	Equity and Stock or Equity Share Market	75	92.6
	Debt Market	0	0
	Commodity Market	0	0
	ETF	0	0
	Mutual Funds	6	7.4
	Real Estates	0	0
	SIP/ULIP	0	0
	Others	0	0
Purpose of behind Investment	Wealth Creation	14	17.3
	Tax Saving	0	0
	Earn Returns	47	58.0
	Future Expenses	9	11.1
	Others	11	13.6
Sector	Private	35	43.2
	Public	1	1.2
	Both	45	55.6
Time Period	Short – term (0 – 1 years)	48	59.3
	Medium – term (2 – 5 years)	12	14.8
	Long – term (Above 6 years)	21	25.9
Monitor	Daily	62	76.5
	Weekly	13	16.0
	Monthly	6	7.4
	Bi – Annually	0	0
	Annually	0	0
Traded on the BSE/NSE	Below 1 year	28	34.6
	2 – 4 years	53	65.4
	Above 5 years	0	0

Source of Investment Advice	Newspapers	0	0
	News channels	0	0
	Family or friends	0	0
	Books	0	0
	Internet	44	54.3
	Magazines	0	0
	Advisors	37	45.7
	Certified Market Professional / Financial Planners	0	0
Source of your Investment Decision	Self Analysis	38	46.9
	Tips / Recommendation	0	0
	Expert Comments	7	8.6
	Advisor/ Broker	36	44.4
	Others	0	0
Factors Guiding Investment Decision	Return	42	51.9
	Safety of Principal	0	0
	Diversification	0	0
	Progressive Values	0	0
	Capital appreciation	7	8.6
	Fast growth	32	39.5
Stock Market Knowledge	Low	66	81.5
	Medium	15	18.5
	High	0	0

Total Number of Respondents 81

It is found from table 2 investment analysis of the respondents that 92.6 percent of the respondents have invested in equity shares and 7.4 percent of the respondents have invested in mutual funds. It is obvious from the analysis that 92.6 % of the respondents have invested in equity shares.

It is learnt from above table 58.0 percent of the respondents have invested their money for the purpose of earning returns, 17.3 percent of the respondents have invested for wealth creation, 13.6 percent of investors have invested their money for other than the above purposes and 11.1 percent of the respondents have invested for future expenses. It is important to note that majority of the respondents (58.0%) have invested their money for the purpose of earning returns.

It is deduced from above table 55.6 percent of the respondents have opted to invest in both private and public sectors, 43.2 percent of the respondents have opted to invest in private sector and only 1.2 percent of the respondents have opted to invest in public sector. It is observed from the analysis that majority of the respondents (55.6%) have opted to invest in both private and public sectors.

It could be observed from above table 59.3 percent of the investors have opted to invest in short – term securities, 25.9 percent of the investors have opted to invest in long term securities and only 14.8 percent of the respondents have opted to invest in medium term instruments. It is also inferred from the analysis that 59.3% of the respondents have opted short term securities.

It is found from above table 76.5 percent of the respondents have monitored on daily basis, 16 percent of the respondents have monitored on weekly basis and only 7.4 percent of the respondents have monitored on monthly basis. It is also observed from the analysis that 76.5% of the respondents monitor their investment on daily basis.

It is understood from above table 65.4 percent of the investors have traded for the last 2-4 years and 34.6 percent of the investors have traded for the last 1 year. Hence majority of the respondents (65.4%) have traded for the last 2-4 years.

It is deduced from above table 54.3 percent of the respondents have used internet and 45.7 percent of the respondents have sought advisors' advice. Hence 54.3% of the respondents have used internet for their investment advice.

It is learnt from above table 46.9 percent of the respondents have made self analysis, 44.4 percent of the respondents have relied on advisors/brokers and only 8.6 percent of the respondents have relied on the comments of experts. It is observed from the analysis that (46.9%) of the respondents have made self analysis for their investment decisions.

It is understood from above table 51.9 percent of the respondents were guided by the factor "return", 39.5 percent of the respondents were guided by the factor "fast growth" and only 8.6 percent of the respondents were guided by the factor "capital appreciation". It is observed from the analysis that majority of the respondents (51.9%) were influenced by return on investment.

It could be found from above table 81.5 percent of the respondents have gained low level knowledge and only 18.5 percent of the respondents have gained medium level knowledge towards Indian stock market. It is also noted from the analysis that majority of the respondents (81.5%) have gained low level knowledge on Indian stock market.

Chi – Square Test for Socio – Economic Variables and Young Generation Investors' Confidence

Chi – square values for socio – economic variables and young generation investors' confidence are given in the following table 3. To study the significant association between socio – economic variables and young generation investors' confidence towards Indian stock market, the following 4 variables are considered.

Table 3: Association between Socio – Economic Variables and Young Generation Investors' Confidence

Sl.No	Socio – Economic Variables	Chi – Square Value	Significant Value	Significant or not
1.	Age	3.962	0.411	Not Significant
2.	Educational Qualification	42.236	0.000	Significant
3.	Occupation	48.526	0.000	Significant
4.	Annual Income	40.111	0.000	Significant

From the above table 3 it is observed that out of 4 socio – economic variables, only one variable such as age has not significant association with investors' confidence. The remaining 3 variables namely, Educational Qualification, occupation and annual income have significant association with investors' confidence. The variables are explained in a detailed manner as given below.

1. Age and Young Generation Investors' Confidence

In order to understand whether age has any effect on young generation investors' confidence, the relationship between these two is analysed.

Table 4: Age and Young Generation Investors' Confidence: [Two Way Table]

Age	Young Generation Investors' Confidence			Total
	Low	Medium	High	
15 - 20 Years	2 (10.0%)	7 (17.9%)	3 (13.6%)	12 (14.8%)
20 – 25 Years	8 (40.0%)	9 (23.1%)	10 (45.5%)	27 (33.3%)
26 – 29 Years	10 (50.0%)	23 (59.0%)	9 (40.9%)	42 (51.9%)
Total	20 (100%)	39 (100%)	22 (100%)	81 (100%)

[Source: Primary Data]

Table 4 depicts that the percentage of high level of age and young generation investors' confidence was the highest of 45.5% among the respondents who are 20 – 25 years and the same was the lowest of 13.6% among them who are below 20 years. The percentage of medium level of savings and investment behavior was the highest of 59.9% among the respondents who are 26 – 29 years and the same was the lowest of 17.9% among them who are below 20 years. In the case of low level of age and young generation investors' confidence, the highest of 50.0% was among them who are 26 – 29 years and the same was the lowest of 10.0% among them who are below 20 years.

To ascertain the relationship between age and young generation investors' confidence, Chi – square test was applied and result of the test is shown in the following table.

Null Hypothesis (H_0): There is no significant association between age and young generation investors' confidence towards Indian stock market.

Alternate Hypothesis (H_1): There is a significant association between age and young generation investors' confidence towards Indian stock market.

Table 5: Age and Young Generation Investors' Confidence [Chi – Square Test]

Factor	Chi-Square Value	df	Significant Value	Result
Age	3.962	4	0.411	Not significant

The significant value is more than 0.05 which means the null hypothesis is accepted. The null hypothesis, "There is no significant association between age and young generation investors' confidence towards Indian stock market" holds good. It is learnt that investors' age does not have significant influence on investors' confidence towards Indian stock market.

2. Educational Qualification and Young Generation Investors' Confidence

The relationship between investors' educational qualification and their confidence towards Indian stock market is analyzed to understand whether respondents' educational qualification has any effect on their confidence. For the purpose of analyzing their level of confidence, five categories of educational qualification such as upto HSC, diploma, under graduate, post graduate and others are considered.

Table 6: Educational Qualification and Young Generation Investors' Confidence [Two Way Table]

Educational Qualification	Young Generation Investors' Confidence			Total
	Low	Medium	High	
Upto HSC	0 (0.0%)	2 (5.1%)	1 (4.5%)	3 (3.7%)
Diploma	1 (5.0%)	4 (10.3%)	0 (0.0%)	5 (6.2%)
Under Graduate	13 (65.0%)	24 (61.5%)	1 (4.5%)	38 (46.9%)
Post Graduate	6 (30.0%)	5 (12.8%)	20 (90.9%)	31 (38.3%)
Others	0 (0.0%)	4 (10.3%)	0 (0.0%)	4 (4.9%)
Total	20 (100.0%)	39 (100.0%)	22 (100.0%)	81 (100.0%)

[Source: Primary Data]

Table 6 reveals that the percentage of high level of educational qualification and young generation investors' confidence was the highest of 90.9% among them who have got postgraduate and the same was the lowest of each 0.0% among the respondents who are diploma and others. The percentage of medium level of educational qualification and young generation investors' confidence was the highest of 61.5% among them who have got undergraduate degree and the same was the lowest of 5.1% among them who have completed higher secondary course or less. Similarly, the percentage of low level of educational qualification and young generation investors' confidence was the highest of 65.0% among them who have obtained undergraduate degree and the same was the lowest of each 0.0% among the respondents who are diploma and others.

Chi – square test was applied to ascertain the relationship between educational qualification and young generation investors' confidence and the result is presented in the following table.

Null Hypothesis (H_0): There is no significant association between educational qualification and young generation investors' confidence towards Indian stock market.

Alternate Hypothesis (H_1) : There is a significant association between educational qualification and young generation investors' confidence towards Indian stock market.

Table 7: Educational Qualification and Young Generation Investors' Confidence [Chi – Square Test]

Factor	Chi-Square Value	df	Significant Value	Result
Educational Qualification	42.236	8	0.000	Significant

The chi – square test result shows that the significant value is less than 0.05 which means the null hypothesis is rejected. The null hypothesis “There is no significant association between educational qualification and young generation investors' confidence towards Indian stock market” does not hold good. It is observed that investors' educational qualification has significant influence on their confidence towards Indian stock market.

3. Occupation and Young Generation Investors' Confidence

The relationship between investors' occupation and their confidence towards Indian stock market is analyzed to understand whether respondents' occupation has any effect on their confidence. For the purpose of analyzing their level of confidence, five categories of occupation such as employed, profession, business, student and others are considered.

Table 8: Occupation and Young Generation Investors' Confidence [Two Way Table]

Occupation	Young Generation Investors' Confidence			Total
	Low	Medium	High	
Employed	6 (30.0%)	17 (43.6%)	7 (31.8%)	30 (37.0%)
Profession	13 (65.0%)	7 (17.9%)	0 (0.0%)	20 (24.7%)
Business	1 (5.0%)	6 (15.4%)	1 (4.5%)	8 (9.9%)
Student	0 (0.0%)	5 (12.8%)	14 (63.6%)	19 (23.5%)
Others	0 (0.0%)	4 (10.3%)	0 (0.0%)	4 (4.9%)
Total	20 (100%)	39 (100%)	22 (100%)	81 (100%)

[Source: Primary Data]

Table 8 shows that the percentage of high level of occupation and young generation investors' confidence was the highest of 63.6% among the student investors and the same was the lowest of each 0.0% among the respondents who are profession and others. The percentage of medium level of occupation and young generation confidence was the highest of 43.6% among the employed and the same was the lowest of 10.3% among others. Similarly, the percentage of low level of occupation and young generation confidence was the highest of 65.0% profession investors and the same was the lowest of each 0.0% among the respondents who are student and others.

In order to find out the relationship between occupation and young generation investors' confidence towards Indian stock market, Chi – square test was applied and result of the test is shown in the following table.

Null Hypothesis (H_0): There is no significant association between occupation and young generation investors' confidence towards Indian stock market.

Alternate Hypothesis (H_1): There is significant association between occupation and young generation investors' confidence towards Indian stock market.

Table 9: Occupation and Young Generation Investors' Confidence [Chi – Square Test]

Factor	Chi-Square Value	df	Significant Value	Result
Occupation	48.526	8	0.000	Significant

The chi – square test result shows that the significant value is less than 0.05 which means the null hypothesis is rejected. The null hypothesis “There is no significant association between occupation and young generation investors’ confidence towards Indian stock market” does not hold good. It is observed that investors’ occupation has significant influence on their confidence towards Indian stock market.

4. Annual Income and Young Generation Investors' Confidence

The relationship between annual income of the respondents and young generation investors’ confidence towards Indian stock market is analyzed to understand whether annual income has any effect on young generation investors’ confidence.

Table 10: Annual Income and Young Generation Investors' Confidence [Two Way Table]

Annual Income	Young Generation Investors' Confidence			Total
	Low	Medium	High	
Less than ₹ 2 lakhs	6 (30.0%)	3 (7.7%)	14 (63.6%)	23 (28.4%)
₹2 to less than 4 lakhs	2 (10.0%)	20 (51.3%)	7 (31.8%)	29 (35.8%)
₹4 to less than 6 lakhs	12 (60.0%)	10 (25.6%)	0 (0.0%)	22 (27.2%)
₹6 lakhs and above	0 (0.0%)	6 (15.4%)	1 (4.5%)	7 (8.6%)
Total	20 (100%)	39 (100%)	22 (100%)	81 (100%)

[Source: Primary Data]

Table 10 shows that the percentage of high level of annual income and young generation investors confidence was the highest of 63.6% among the respondents who earn less than Rupees 2 lakhs and the same was the lowest of 0.0% among the respondents whose annual income Rupees 4 lakhs to less than 6 lakhs. The percentage of medium level of annual income and young generation investors confidence was the highest of 51.3% among the respondents who earn rupees 2 to less than 4 lakhs and the same was the lowest of 7.7% among the respondents whose annual income is Less than rupees 2 lakhs. As far as low level of annual income and young generation investors confidence is concerned, the highest of 60.0% among the respondents who earn rupees 4 to less than 6 lakhs and the same was the lowest of 0.0% among the respondents whose annual income is rupees 6 lakhs and above.

To ascertain the relationship between annual income and young generation investors’ confidence towards Indian stock market, chi – square test was applied and the result of the test is shown in the following table.

Null Hypothesis (H_0): There is no significant association between annual income and young generation investors’ confidence towards Indian stock market.

Alternative Hypothesis (H_1): There is a significant association between annual income and young generation investors’ confidence towards Indian stock market.

Table 11: Annual Income and Young Generation Investors' Confidence [Chi – Square Test]

Factor	Chi-Square Value	df	Significant Value	Result
Annual Income	40.111	6	0.000	Significant

The chi – square test result shows that the significant value is less than 0.05 which means the null hypothesis is rejected. The null hypothesis “There is no significant association between annual income and young generation investors’ confidence towards Indian stock market” does not hold good. It is observed that investors’ annual income has significant influence on their investors’ confidence towards Indian stock market.

9. DISCUSSIONS

As far as the socio – economic variables are concerned three variables i.e., educational qualification, occupation and annual income has significant association with young generation confidence towards Indian stock market and remaining only one variable i.e., age do not have significant influence on investors' confidence towards Indian stock market. The percentage of high level of age and young generation investors' confidence was the highest of 45.5% among the respondents who are 20 – 25 years old and the same was the lowest of 13.6% among them who are below 20 years old. It is concluded that the central government and regulating body (SEBI) may take necessary steps to enhance their perceptive level which will instill confidence among the young generation investors who have gained low level of confidence so far towards the Indian stock market. Also it is discussed that the companies have to take initiatives to create awareness and educate the young investors' to increase the confidence level in order to invest in stock market. As India is agreed to be the worlds' youngest nation by United Nations, these kinds of initiatives may march towards trillion economies.

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ANALYSIS OF THE IMPACT OF FACTORS INFLUENCING POST RETIREMENT PLANNING

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ABSTRACT

The main aim of the study is to analyze the impact of various elements that influence retirement preparation. The act of retiring is a significant social transition for an individual, and the meaning of retirement for an individual is also, to a large extent, determined by psycho-social factors as well as the cultural understanding of what it means to retire. The act of retiring itself is a significant social transition. One approach to think about the psychological effect of a given occurrence is as the sum total of all of the many ways in which it has an impact on the social lives of different individuals. Professional retirement is an ongoing process, often starting years before retirement, and involves making plans to continue actively participating in activities associated with previous work. In practice, there is often a combination of different work-related activity models, such as post-retirement work and volunteering. This is because real-world people have real-world careers. Therefore, preparing your finances for retirement should be a key part of your financial planning during your working years.

Keywords: Post-retirement, Investment Avenues, Factors and Planning.

1. INTRODUCTION

Although the retirement age varies from country to country, it usually varies between 55 and 70 years. (Bader Eldin, et al., 2012). There are several exceptions to Egypt's standard retirement age of 60; however, this rule is generally followed in the country (Bureau of Police, USA 2007). It is recommended that you start preparing for early retirement, especially before the age of 50. (Johnson and Johnson, 2007) Psychological problems that can arise as you approach retirement age include anxiety, stress, worry, despair, and negative attitudes towards retirement. Another potential difficulty is a negative attitude towards retirement. These mental illnesses are believed to be associated with a variety of life situations that occur after retirement, such as: B. financial problems, job transitions, family conflicts, housing difficulties and physical health problems (Foster, 2008).

Retirement anxiety is characterized by worries and fears about the individual's future as a direct result of the individual's decision to retire. These worries and fears stem directly from an individual's decision to withdraw from active life. It is a fear that usually develops after a change that cannot be avoided; However, most people tend to resist change because it is not always practical (Bryant, et al., 2008; Rodda, et al., 2008). People's perspectives on retirement shed light on how this event can affect the overall amount of happiness in life they experience after it has happened, after it has happened. It is conceivable that, in addition to the stress caused by the transition, the decision to retire also affects hiring. This decision was influenced by a variety of factors, including marital status, event preparation, job satisfaction, presence of a working spouse, and overall marital satisfaction (Jennifer, 2009). There is a general upward trend in the life expectancy of people around the world and India is no exception to this trend. People live longer, which means they can enjoy their golden years longer. Furthermore, retirement benefits continue to decline, while at the same time health care costs continue to rise with age. The already inadequate retirement provision is further affected by the increase in the cost of living. The second problem is that when people retire in India, they do so with only twenty percent of their total pre-retirement earnings. This is a significant financial challenge. Only twenty percent of what they had before retirement is now in their possession. This amount

of money is also far from sufficient to cover the cost of living in retirement, especially as social norms in our society are changing and parents can no longer count on their children being cared for at an older age. This amount of money is far from enough to support you in retirement. This amount of money is far from enough to keep him through his retirement years.

Therefore, retirement preparation should be considered a top priority, and therefore prudent management of pension funds is absolutely necessary to ensure adequate retirement preparation (**Gichuki, 2008**). Retirement benefit is recognized in India's Vision 2030, a strategic plan to achieve important economic milestones by 2030. This vision documents retirement benefit as a key pillar for achieving economic growth and accelerating financial market development. Therefore, the general public should be empowered to make long-term financial decisions, which in turn will help reduce the number of older people living in poverty. This is because the population has the ability to rationalize both short-term financial decisions and the long-term interests of the population as a whole. Furthermore, the growth of financial services in India is not only creating huge opportunities, it is also increasing the likelihood of members of the general population making bad decisions regarding their personal finances. Consequently, financial education programs need to be expanded to meet the growing demand.

Development of His Profession throughout His Life.

The term "career" refers to the process by which an individual develops their career interests, choices and behaviors throughout their life. Living space methodology Individual thinking about expanding one's career as part of one's daily life is known as the "professional growth habitat" (also spelled "professional development habitat"). Human beings tend to assume different roles throughout their lives, as the habitat they inhabit is determined by the constellation of different social positions they assume, including the duties of spouse, father, grandfather, brother, friend, player of golf and volunteer.

Although the duty of the worker is fundamental in today's society, it is only one of the many responsibilities that people take on in today's society. Furthermore, the different roles assumed by individuals influence how these positions interact with each other in terms of the resources (such as energy, time and money) that people have at their disposal. This interaction is reflected in the way people allocate their time and energy. Compared to the previous example, the conditions associated with the constellation of the individual's different social positions play a role in the individual's decision to continue or not to work after retirement. It's something he has thought about a lot. Furthermore, the importance that each role has in people's lives in determining the distribution of resources among the multiple roles is considered. This ensures that resources are used as efficiently as possible. Life-Based Approach Many journeys from one stage of life to another are required to advance in the chosen field of work. The career stage and task development ladder model is an approach to working life and life-long life development. The model was developed by the Society for Human Resource Management (SHRM). In a career development model, there are several sub-levels that make sense and relate to the tasks performed. Depending on the course of life stages over time, these sub-stages can be divided into the following categories: growth, exploration, settlement, maintenance and exclusion or reintegration.

2. REVIEW OF LITERATURE

Professional retirement is an ongoing process, often starting several years before official retirement. This includes the ability to continue to be actively involved in previous job-related activities after leaving the main job (**Wang et al. 2013**). This planning process is driven by a variety of different situations, and retirees' decisions about whether or not to participate in career-related activities are influenced by these decisions. This planning process is determined by a number of different factors. People who have reached retirement age have the option to continue working as before or to volunteer. Alternatively, they can choose to create new

opportunities for themselves and take on new responsibilities to participate in society and engage in constructive activities. Post-retirement employment, sometimes called transitional employment, is paid work done inside or outside the retiree's professional sector (early retirement). Post-retirement work is considered part of career-related activities (**Gobeski and Beehr 2009**). There is a wide variety of jobs to choose from, including working for your current employer, a new employer, or starting your own business. One can also choose to remain engaged in the person's existing business (**Shultz 2003**). It was also noted that post-retirement volunteering is an important form of constructive engagement and that this type of engagement should also be considered after retirement. After retirement, volunteering can take the form of formal activities that help non-profit organizations (such as people with disabilities). In practice, different career-related business models can usually be tried, such as B. continued work after retirement in addition to volunteer work. Finding out how your sense of self-efficacy, the goals you have set for yourself, and the results you want to achieve are related is the first step on the road to a post-retirement career. provides an overview of the entire career self-management process, including the main career planning process, represented by the shaded boxes, and its proximal and distal antecedents, represented by the white boxes. Additionally, the shaded boxes contain information about the basic career planning process. It is important to note that direct effects are represented by solid lines, while moderate effects, where one variable strengthens or weakens the association between two other factors, are represented by dashed lines. In the early stages of the basic career planning process, self-efficacy and expectations about outcomes play an important role as early precursors of career-related behavior. Looking at the process model, it is quite obvious that the two components are what drives behavior both directly and indirectly through the use of goals.

The level of confidence that the desired outcome can actually be achieved is directly related to the extent to which self-efficacy expectations and outcome expectations influence professional behavior. Under certain conditions, self-efficacy turns out to be the main element in determining work-related behaviors, with expectations of results playing a secondary role. This finding suggests that self-efficacy may be more important than previously thought. One such scenario is when a high level of performance is required to ensure the assigned business results. Expectations of such outcomes have a significant impact on professional behavior, although career future is uncertain (i.e. career outcomes tend to be loosely tied to level of achievement). For example, if an individual has worked for a company for more than 20 years and that company has maintained a high level of performance during those years, the employee may be given the option to continue working after retirement as long as the company has been successful in maintaining this level of performance over the years. It is highly unlikely that the employee will continue to be employed at the company, even if the employer has doubts about the employee's ability to perform the functions of the position. This suggests that the employee's expectation of self-efficacy, together with his expectation of outcome, plays a key role in creating goals that contribute to the achievement of the result.

This is true regardless of whether the employee believes they can keep their current income after retirement. Several different theories, including planned behavior, social cognitive theory, and goal setting theory, among others, postulate that an individual's goals or intentions are the primary motivating factor behind his actions. These theories also emphasize important characteristics that are relevant to the goal and that are necessary to be effective determinants of behavior. These characteristics include: In terms of these attributes, goals should be unambiguous, specific, loosely articulated, aligned with individual values and relatively close to real behavior (**Lent and Brown 2013**). Self-efficacy, expectations about results and goals are key aspects that influence work-related behavior as a whole. Additionally, targeted actions are more likely to lead to the desired successful business outcomes. For example, a person who reports their retirement status in a neutral way, without naming their career aspirations, is less

likely to get a job than a person who is actively looking for work after official retirement and is more likely to get a job. This is because employers are more likely to select candidates who are actively looking for work. Another direct link between self-efficacy and the achievement of results is the fact that self-efficacy plays an important role in activating, organizing and maintaining an individual's work behavior.

3. RESEARCH METHODOLOGY

The purpose of the study is to investigate the many financial opportunities that individuals consider while making plans for their retirement. A sample of 100 individuals from Delhi NCR were chosen using a standard random selection method. These individuals were picked in order to ensure that each age range, gender, and working sector was adequately represented. The data from this investigation were presented in the form of tables, pie charts, and graphs through the application of the descriptive method of data analysis. In this study, a quantitative approach is taken to Analyse the relationships between retirement planning behaviour and the independent variables of personal attitude, saving behaviour, financial literacy, and goal clarity (dependent variable).

HYPOTHESIS

H0:1 There is no correlation between the age of the respondents and the retirement planning investment avenue that they used.

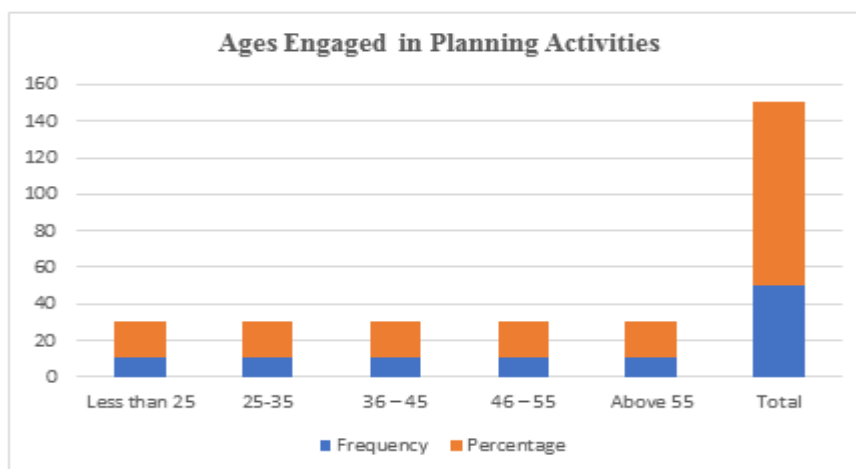
H0:2 There is no correlation between the respondents' salary and the retirement planning investment avenue they are using.

4. DATA ANALYSIS

A standardized questionnaire was developed with the purpose of identifying the numerous investment opportunities available for retirement plans as well as the most desirable ones. The total number of answers received was 100. The research utilized a descriptive methodology for its analysis.

Table 1: Participants of Varied Ages Engaged in Planning Activities.

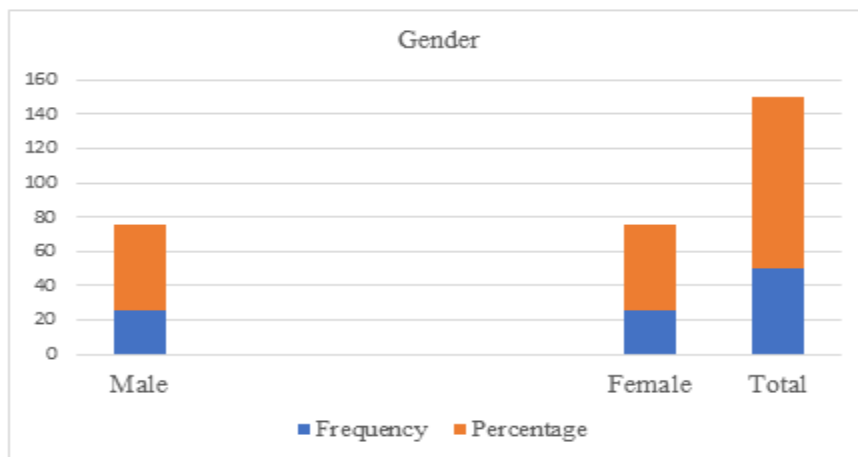
Age	Frequency	Percentage
Less than 25	20	20
25-35	20	20
36 – 45	20	20
46 – 55	20	20
Above 55	20	20
Total	100	100



The findings of this poll are summarizing in table 1, which depicts the proportion of respondents in each age bracket who either do or do not have plans to retire in the foreseeable future. The age range of responses that falls between the ages of 25- and 35-years old accounts for 20% of the total, followed by the age range that falls between the ages of 46 and 55 years old, which accounts for 20% of the total, and then various age ranges, which account for the remaining 20% of the total.

Table 2: representation of men and females in the total number of respondents

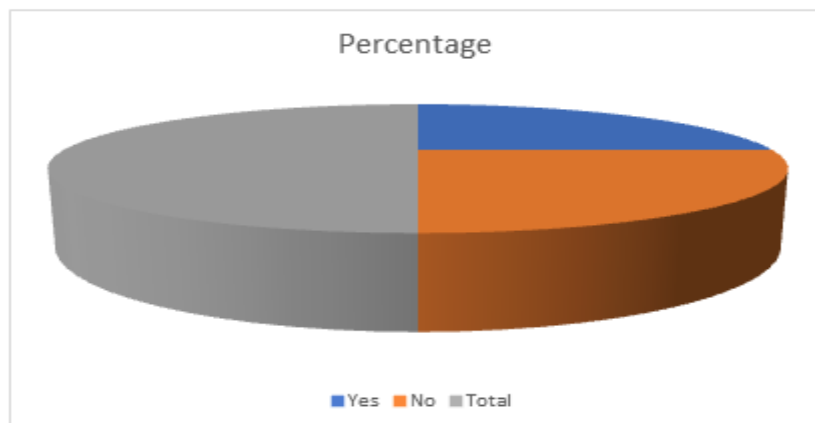
Gender	Frequency	Percentage
Male	50	50
Female	50	50
Total	100	100



Shows that the total number of male and female responses is equal, with a ratio of 50 to 50.

Table 3: Have you given any thought to how you will support yourself in your golden years?

Are you planning for your retirement?	Frequency	Percentage
Yes	50	50
No	50	50
Total	100	100



Suggests that fifty percent of the whole sample is involved in some sort of retirement savings or investment preparation in the form of one or more of a variety of vehicles. Each gender has their own count, but there are going to be 50 people retiring in total, and that amount is the same for both men and women.

The participants who are not planning for their retirement make up fifty percent of the total sample. The majority of those participants who are not planning for their retirement cite the fact that they have an excessive number of costs at the present time as the reason why they are not planning for their retirement. There are 50 individuals who do not have any plans to retire, and there are an equal number of males and women included in this group. Responses to the supplementary survey were from fifty percent of the participants who are getting ready to retire.

Table 4: Motivating aspects that inspire you to start making plans for your retirement finances now?

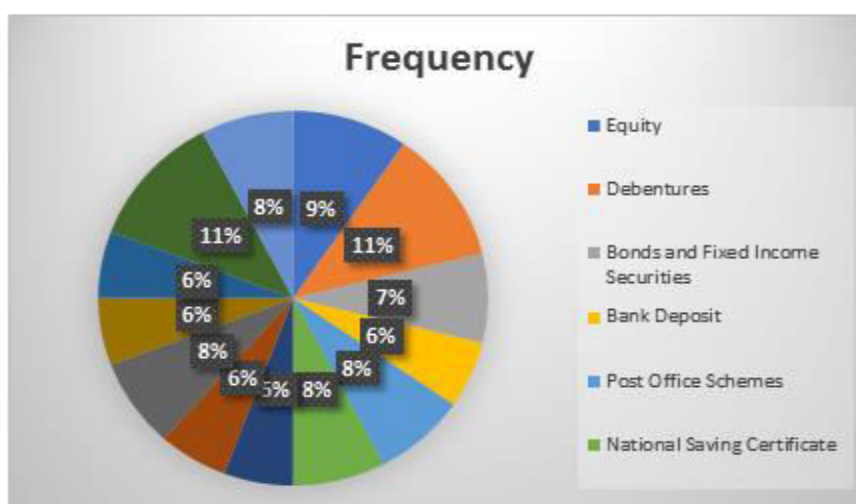
Reasons	Frequency	Percentage
Inculcate Saving Habits	10	10%
Inflation	14	14%
Medical Emergencies	10	10%
Compounding Effects	14	14%
No Dependence	10	10%
Support your dependent	8	8%
It's never too early to start	14	14%
Saving in Tax - Deferred retirement plan	10	10%
Best time to fulfil lifelong aspiration	10	10%
Others	0	0.00



Showed that one out of every ten respondents saved for their retirement to prepare for unforeseen medical bills. This was followed by one out of every ten people who saved because they wished to encourage their children to save. 8 percent of your income goes toward supporting your dependents, 10 percent goes toward supporting yourself if you have no dependents, and 10 percent of your income can be put away in tax-deferred retirement accounts. It is never too late to start anything new - 14 percent, The time when you are 10 percent, 14 percent negative impact from compounding effects; 14 percent negative impact from inflation closer to achieving a long-term objective is when you are in the best position to do it.

Table 5: Which one of the following investment opportunities will serve as the foundation of your retirement plan?

Investment Avenues	Frequency	Percentage
Equity	10	10%
Debentures	12	12%
Bonds and Fixed Income Securities	8	8%
Bank Deposit	6	6%
Post Office Schemes	8	8%
National Saving Certificate	8	8%
Employee's Provident Fund	6	6%
Public Provided Fund	6	6%
Real Estate	8	8%
Precious Object	6	6%
Insurance Policies	6	6%
Pension Plans	12	12%
Mutual Fund	8	8%



Based on the responses received, it appears that six percent of individuals would rather buy insurance policies than save and invest for their retirement. Following that on the list are mutual funds, where eight percent of respondents indicated a preference to put their money. Following that are various bank deposit schemes, such as savings accounts, fixed deposit accounts, and recurring account options, which were selected by six percent of respondents. Real Estate Eight percent of those who participated in the survey had the possibility to earn rental income from a variety of sources, including house property, agricultural property, and other assets of a similar nature. 12 percent of those with pension plans chose precious objects as their preferred investment, while 6 percent of people who wanted to invest in metals went with precious objects. The most common kinds of investments include precious metals like gold and silver as well as other valuable goods like works of art, sculptures, coins, and stamps. Other sorts of investments are less common. 10 percent is put toward equity, 6 percent is put toward the fund that the public provides, 12 percent is put toward debt, 6 percent is put toward the fund that the employees supply, and 8 percent is put toward bonds and other fixed income assets. Post Office Schemes — Eight percent of individuals have made investments in post office schemes like as post-office deposit accounts, kisan Vikas Patra accounts, senior citizen saving plan accounts, and other similar accounts. National Savings Certificate - Eight percent of individuals have some sort of investment in national savings certificates.

HYPOTHESIS

H0:1 There is no correlation between the age of the respondents and the retirement planning investment avenue that they used.

ANOVA

Anova: Single Factor						
SUMMARY						
<i>Groups</i>	Count	Sum	Average	variance		
Column 1	7	8	14	9.6		
Column 2	7	8	12.5	7.5		
Column 3	8	9	10.46667	4.566666667		
Column 4	8	9	6	1.6		
Column 5	10	8	3	0		
Column 6	10	8	14.36667	14.26666667		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	630.2222	5	126.0444	20.26624776	7.81242	2.5335545
Within Groups	185.6667	30	6.188889	20.3624776		
Total	815.8889	35				

The table that can be found above, which comes from ANOVA, shows that the significance value of 0.05 is exceeded by the P value, which comes in at 7.81. As a consequence of this, the null hypothesis H0 cannot be rejected. Therefore, one's age does not play a role in determining whether or not they should start saving for their retirement.

H0:2 There is no correlation between the respondents' salary and the retirement planning investment avenue they are using.

Anova: Single Factor						
SUMMARY						
Group	Count	Sum	Average	variance		
Column 1	7	8	12	0		
Column 2	7	8	12.5	7.5		
Column 3	8	9	11.23333	2.466667		
Column 4	8	9	6	1.6		
Column 5	10	8	2.333333	0.166667		
Column 6	10	8	13.23333	6.666667		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	25	5	107.8	34.77419	1.295134	2.533555
Within Groups	25	30	3.1			
Total	50	35				

The above ANOVA table demonstrates that the P value (1.29), which is significantly higher than the significance value of 0.05, exists. As a result, the hypothesis H0 cannot be dismissed. Therefore, there is no correlation between the amount of income and the number of years needed for retirement planning.

RECOMMENDATIONS

- ❖ The results of the study provide an illustration of how individuals feel about making preparations for retirement and the numerous chances for investment that are currently available.
- ❖ The results of this research show that retirement plans are in place for fifty percent of the respondents who participated in the poll. On the other hand, despite the substantial expenditures associated with retirement, fifty percent of people do not make plans for their future retirement.
- ❖ The outcomes of the study indicate that demographic characteristics like as age, gender, and marital status have minimal impact on the manner in which an individual should plan for their retirement.
- ❖ According to the results of the survey, the investment vehicles that have the greatest levels of investment and preference are insurance policies, mutual funds, bank deposits, real estate, and pension plans. Other alternatives came in a distant second..

5. CONCLUSION

Individual plan their career after retirement. The role of professional development throughout an individual's life was examined, with particular attention to the exit or re-entry phase of the workforce. This phase can be a positive or negative experience for the individual. The results of the study also show that there is a significant correlation between saving behavior and the provision of individual pensions and saving behavior. The relationship was significant when all three factors were considered together. The study stood out because it did not identify any of the demographic characteristics that influence savings practices; nevertheless, the purpose of saving is moderately correlated with savings activity, savings behavior and individual retirement planning. Furthermore, the savings goal is moderately linked to individual retirement intentions.

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PERCEPTION OF BORROWERS TOWARDS HOUSING FINANCE A-CASE STUDY OF SELECT DISTRICT IN HOUSING FINANCE INSTITUTION

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ABSTRACT

The primary purpose of this paper is to know the perception of home loan customers or Borrowers to find their satisfaction with reference to the banks operating in India. The study is descriptive in nature and the convenience sampling method is applied in this study. The study is conducted in Karimnagar and Medak in districts of Telangana among both males and females and the age group ranges Between 21 - 60. The results show that in the overall survey for finding the perception of borrowers towards home loans in Karimnagar and Medak in districts of Telangana the Borrowers have a good response.

Keywords: Home loan, Borrower's perception, Karimnagar and Medak in Telangana.

INTRODUCTION

A home loan is a long-term commitment for the entmassesmass on this earth. There e some banks and financial institutions through which one can easily avail of a home loan at a reasonable rate of interest. Housing is a basic human need. Yet lack of adequate housing is one of the biggest challenges facing emerging markets today. An exciting housing sector – in addition to helping to provide shelter – is vital for economic growth. Housing is a strong job creator. Studies show that for every home built, at least three jobs are created both directly through construction, real estate, and finance and indirectly through manufacturing and services.

LITERATURE REVIEW

S. Gudadhe. P (2013) in his paper "Customer perception towards products and service of State bank in India" his article focused on the research by taking into account branches of Yavatma district. This article discussed the SBI Bank group-wise perception and satisfaction level of customers, and the availability and use of products and services given by the banks. The study concludes by stating that the customer expects higher quality services from banks which, if fulfilled, could result in significantly improved customer satisfaction levels. 99.27% of customers expressed their satisfaction with the service.

RESEARCH DESIGN

Statement of Problem

This study has been accepted to know the perception of home loan borrowers to identify the level of satisfaction of borrowers with reference to bank-wise. Normally borrowers are facing a lot of problems in the process of obtaining home loans. However, some banks are more responsive than others, therefore, it is felt to conduct a study about borrowers' perceptions to know the customer's opinions in regard to their satisfaction. Some banks will charge a high processing fee and consume more and more time in the approval of house loans as a result of its borrowers becoming selective to choose the bank from where the loan can be obtained.

Objectives of study

- i) To know the borrower's perception of Home loans.
- ii) To study the awareness of borrowers about Home loans.

RESEARCH METHODOLOGY

Type of Research

This study is based on a descriptive study where the survey has been conducted to know the borrower's perception towards the Home loan.

Sources of Data

The data is collected from primary as well as secondary sources.

i) Primary Source

In a survey approach, the researcher has selected a questionnaire method for taking the borrower's views because it is feasible from the point of view of my study. Researcher conducted 60 samples of the survey to judge the perception of borrowers who took home loans

ii) Secondary Sources

The secondary data was collected based on the website of the company, Journals, Magazines, etc.

Study population

The study has been conducted in Karimnagar and Medak in Telangana. among both males and females and the age group ranges Between 21 - 65.

Sampling Method

A convenience sampling method was used in the survey conducted.

Samples size

City	Sample Size	%
Karimnagar	30	50
Medak	30	50

Hence, for this research study sample size was 60. The sample size consists of professionals, self-employed, salaried, and others.

Statistical Tools for Analysis

Data has been presented with the help of a table, bar graph, line graph, etc.

Limitations of the study

ii) The study is limited to Karimnagar and Medak districts in Telangana.

Data Analysis and Interpretation

The analysis is based on the respondents given by customers through a questionnaire

Gender Classification of Surveyed Respondents

Table 1.1 Gender of the Respondent

Gender	Frequency	Percentage
Female	13	22
Male	47	78.33
Total	60	100.0

From the above table, 78% of respondents are male and only 22% of respondents are female. For women borrowers, various state governments provide concessions in stamp duty, and also the interest on such home loans is irrelatively lower, also women borrowers are less because for availing of this concession, a woman needs to be the first applicant on the documents and should be the sole or joint-owner of the house or she should be an independent earner. So, these are certain factors that can hinder the demand for a woman to take home loans.

Table 1.2 Age of Respondents

Age of Respondents	Frequency	Percentage
21-30	6	10.0
31-40	19	32
41-50	28	47
51-60	7	12
Total	60	100.0

The data portrayed in the above Table shows that 47 % of the respondents fall in the age group of 41-50 years, 32% fall in the age group of 31-40 years, 12 % fall in the group of 51-60 years, 10 % fall in the group of 21-30 years. The respondent is high among the citizens.

Table 1.3 Occupation of the Respondents

Occupation	Frequency	Percentage
Professional	10	17
self-employed	15	25
Salaried	35	58
Total	60	100.0

From the table above it can be concluded that 58% are salaried people, 25% are self-employed and 17% are professional. The major of the respondents are salaried people as salaried employees are the least risk category of borrowers, and are preferred borrowers for most lenders, as the repayment of monthly instalments can be set directly against the salary account.

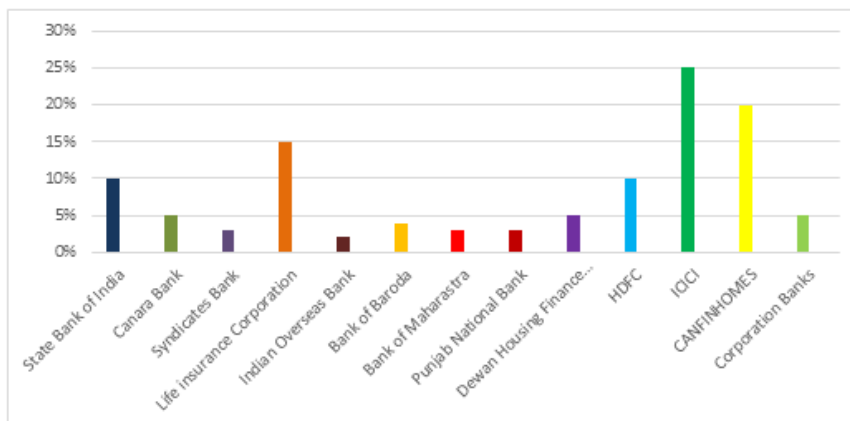
Table 1.4 Annual Income of Respondents

Annual Income	Frequency	Percentage
below 2 lakhs	12	20
2-4 lakh	25	42
between 5- 10 lakh	14	23
10 and above lakh	9	15
Total	60	100.0

As shown in the table 42% of respondent's annual income is between 2-4 lakh, 23% of respondent's annual income is 5-10 lakhs, 20% of respondent's annual income is below 2 lakh, 15% of borrower's annual income is 10 and above lakh.

From which is the Bank/Company Loan Has Borrowed

The analysis showed that many customers prefer the State Bank of India as compared to others. Because it provides home loans to its customers at a low-interest rate starting from 8.5 %. Moreover, they have a special interest rate for their women customers



The biggest advantage of taking up a home loan from SBI is that there is no prepayment penalty, which means you can close the home loan account whenever you want.

Table 1.5 Amount of Home Loan

Amount loan	Frequency	percentage
less than 10 lakhs	12	20
10 - 20 lakh	22	37
20-30 lakh	17	28.3
Above 31 lakhs	9	15
Total	60	100.0

From the above table, it can be concluded that the highest borrowed money falls under 10-20 lakhs.37.% and above 31 lakhs i.e. 15 %.

Table 1.6 Awareness of housing finance

Description Are you aware of	Fully Not Aware N (%)	Not Aware N (%)	Neutral N (%)	Partially Aware N (%)	Fully Aware N (%)
Type of Fixed / Floating Rate	(0.5)	(3.25)	(22.5)	(45.75)	(28)
Method of Calculation	(1.25)	(17.25)	(11)	(47.5)	(23)
Various Lending Housing Finance, Institution	(3)	(17.0)	(13.8)	(39.1)	(25)
Delay In Repayment	(4.75)	(6.7)	(12)	(50)	(26.5)
Can be Closed and Transferred to other	(1.25)	(0.5)	(36.25)	(42)	(20)
Interest rates of other Lending Housing Finance	(1.75)	(0.5)	(19.5)	(31.75)	(46.5)
Security for Obtaining (Mortgage, Gurantee, LIC Policy, Collateral etc)	(0.25)	(2)	(5.5)	(25.75)	(66.5)
Repayment Schedule	(0)	(2)	(13)	(56)	(29)
Procedural Formalities of Sanctioning of the loan Amount	(0)	(1.5)	(10.2)	(57.0)	(28.4)
The Consequences of Default on Loans	(0.2)	(1.5)	(10.5)	(58.5)	(29.25)
Availing Tax Benefits	(2.5)	(1.25)	(27.25)	(32.5)	(35.4)

The table reveals the distribution of respondents is done based on Awareness of Housing Finance. Among the awareness factors for, Type of Fixed / Floating Rate 48 percent of respondents indicated partial awareness and 28 percent indicated fully awareness. Method of Calculation, 48 percent of respondents indicated partial awareness and 23 percent indicated fully awareness. For Various Lending Housing Finance, Bank, 39 percent of respondents indicated partially aware, and 25 percent indicated fully aware, Delay in Repayment, 50 percent indicated partially aware and 27 percent indicated fully aware. For Can be Closed and Transferred to other, 42 percent indicated partially aware, and 20 percent indicated fully aware, Interest rates of other Lending Housing Finance, 32 percent indicated partially aware and 47 percent indicated fully aware. Security for Obtaining (Mortgage, Guarantee, LIC Policy,

Collateral etc), 26 percent indicated partially aware and 67 percent indicated fully aware. Repayment Schedule, 56 percent indicated partially aware and 29 percent indicated fully aware. Procedural Formalities of Sanctioning of the Loan Amount, 57 percent indicated partially aware and 28 percent indicated fully aware. The Consequences of Default on Loans, 59 percent indicated partially aware and 29 percent indicated fully aware. Availing Tax Benefits, 33 percent indicated partially aware and 35 percent indicate fully aware.

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PERFORMANCE MANAGEMENT CRISIS LEADING TO EMPLOYEE ATTRITION IN MAINSTREAM MEDIA-HYDERABAD

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ABSTRACT

Media plays a vital role in building society as it is considered mass media where people get influenced by what is narrated and shown by the mainstream media. Media is a source from which people get to know what is happening in and around them. The media has a great responsibility to carry out justice without any biasedness. News media need skilled employees to develop valid content in a disciplined and professional way. News Editors has a crucial role in building content which involves a lot of professional skills such as command of the language, typing skills, editing software skills, voice modulation, knowledge of different rules and regulations, historical knowledge, and report writing skill. But the issue is Editor's performance management is not maintained well, after having so many skills and having to perform multiple tasks they are paid very less in comparison to their skills. The current study has tried to highlight the issues resulting in employee attrition of mainstream media editors in Hyderabad. The study has collected 47 responses from mainstream media editors.

Keywords: Mainstream Media, Editors, Attrition, Performance Management, Hyderabad.

INTRODUCTION

The mainstream media plays a vital role in building society through its norms and practices because whatever the media shows have a deep impact on the societal value system. The news of any channel is prepared by its employees and the employees work hard to draft and build the content as per the report after their focused work the article or clip reaches the audience which is society. So, Employee retention is very much important for any organization to stop turnover and develop strategies for employee retention by increasing the job satisfaction level of the employees by saving the organization's loss in terms of growth (Mamun & Hasan, 2017). "Employee turnover is delineated as a situation in which employees depart the organization for several reasons, and thus, negatively affect the organization in terms of overall expenditure and the abilities to distribute the minimum required services" (Yankee lov et. al., 2008). The decision of individual turnover is being taken based on gender, age, marriage, location, education, health etc (Liu and Wang, 2006). As a result, how establishing a rational and scientific performance appraisal system is not only directly related to whether the editorial staff's enthusiasm and creativity can be fully exploited but also plays an important role in the effective participation of newspaper media in market competition (Jilin Engineering Normal University, 2017). Any organization should treat their employees as liquid assets as they are the backbone of the organization. In fact, there are two broader kinds of factors which leads to turnover which include Job-related factors and Organization related factors. At times both factors may affect in terms of turnover (Ongori, 2007).

Literature review: The performance of individual employees is beneficial to organizational performance (Zhong et al., 2016). The performance management system is useful to achieve effectiveness in organizations according to modern literature on management (Aguinis & Pierce, 2008; den Hartog et al., 2004; Lawler & McDermott, 2003). In order to maintain a good performance management system in the organization the HRs of the organizations must be trained to use the PMS evaluation system to benefit the organisational performance (Shahjehan & Afsar, 2010). 31 major problems were identified in implementing the performance management system. academicians and partitioners have identified different problems from

each other. As per the practitioners, there are top 10 problems related to the implementation of PMS in the organization (de Waal & Counet, 2009). PMS is an important tool to be used in organizations to monitor and measure individual performance. Individual and team performance can not be ignored as they contribute to the growth of the organization (Noronha et al., 2016). The EPM values of the organization affect the feelings of the employee so the circular process of PMS evaluation should be followed (Neher & Maley, 2020). Human Resource of the organization plays a vital role in the growth of an organization so it is important to maintain PMS in the organization to avoid employee attrition (Osmani & Ramolli, 2012).

“PMSA provides a combined theoretical reflection of goal-setting theory (GST; Locke et al., 1981), control theory (Klein, 1989), and expectancy theory (Vroom, 1964) as a system (Buchner, 2007; DeNisi & Pritchard, 2006; Dewettinck & van Dijk, 2013). PMSF is the extent to which employees perceive their organizational PMS as fair and equitable in terms of its procedures, interactions, and distributions (Sharma et al., 2016), where equity theory (Adams, 1963) becomes important” (Awan et al., 2020).

Performance Management System (PMS) is defined as “a strategic and integrated approach of conveying continued success to institutions by developing the people in a way that improves group and personal performance” (Armstrong and Baron, 1998). The performance management cycle has four stages which complete the performance management system in any organization for the welfare of the employee and the firm as well.

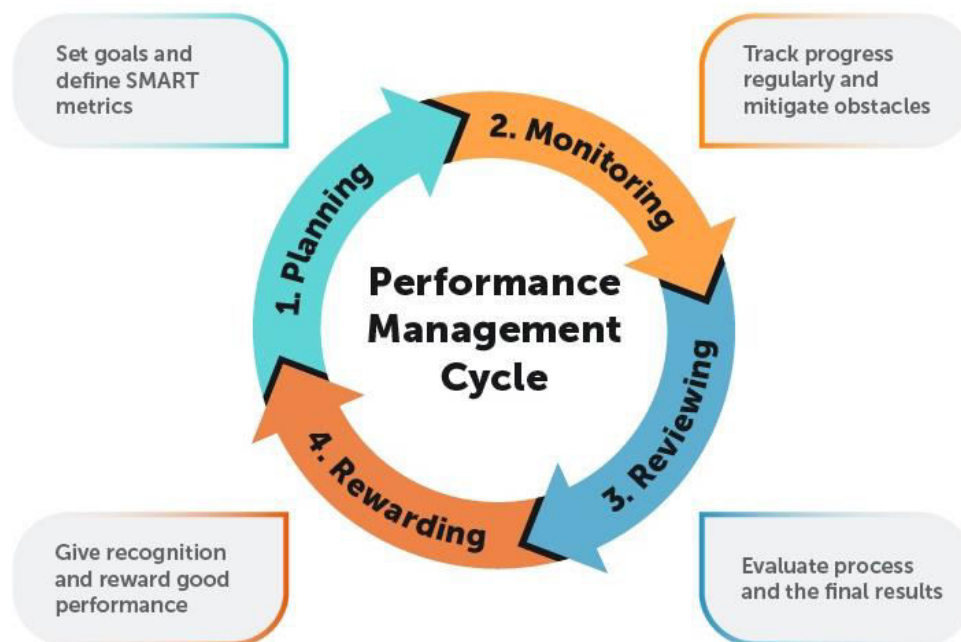


Fig no 1: PMS, Source (Kristen Ryab, 2021)

21st century has brought a change in the demand for labor. Labor of the days demands professional skills due to which the turnover rate has increased. Professionally skilled labor is at high demand in the job market. Michael Armstrong states that “sometimes turnover is the wastage of employee or labor”. The basic and major reason for the turnover is the dissatisfaction of employees with their job (DiNisi. et al., 2015). The reason for the attrition differs from one organization to another organization and from one person to another person. When their expectations are not fulfilled they decide to resign from the job (Mobley W. H, 1982). “Job retention is positively linked with the employer’s promotion of work-life balance” (Smith, B.

D, 2005). For the growth of the organization, employee retention is very much needed due to salary or unflexible timing employees are under pressure and the turnover rate increases which needs to be taken care of by the organization (Talapatra et al., 2016). To understand and conclude employee attrition more research is needed as it is linked with various factors creating dissatisfaction among employees of the firm (Ongori H, 2007; Dickter, et al., 1996).

Objectives

- To know the Job satisfaction level of mainstream media Editors.
- To assess the effects of performance management on attrition of the editors.

Hypothesis

H0: There is no significant impact of performance management on the attrition of employees.

H1: There is a significant impact of performance management on the attrition of employees.

Methodology: The study is descriptive in nature. A qualitative analysis of the quantitative data obtained from the Editors of the mainstream media, particularly in the city of Hyderabad. The sample size of the study was 47 Editors from different mainstream media. Statistical tools of Descriptive statistics and Hypothesis testing has been used to conclude the results of the study.

Data Analysis: The results of the study have been drawn to a conclusion through SPSS Version.23. The Editors working for the organization are not satisfied with the Performance management and Performance appraisal system of their particular organization. The statistical results of table no.1 and table no. 2 highlight that they are facing performance management crises resulting in the decision of attrition with a lack of job satisfaction. During the study, it was found that they were forcefully doing their job where they lost their passion for the profession they had chosen as a career.

Table No 1: statistical results of the Likert scale items of the study

Items	Mean	Result
I love my profession but not the organization I am working	3.66	Agree
I am satisfied with my current job	3.13	Neutral
Our organization keep analysing achievement the of given goals.	2.94	Neutral
Our organization motivates me when I perform well	2.85	Neutral
I am happy with my current salary package	2.72	Neutral
Our organization give promotions based on performance and talent	2.55	Disagree
Our organization gives intensives and bonuses periodically.	2.34	Disagree
Our organization keeps a reward system to increase our interest in task performance	2.40	Disagree
Our organization keeps flexible shift timings.	3.26	Neutral
Our organization provides me with emergency leaves apart from the normal leaves	3.38	Neutral
My performance and hard work are recognized in the organization	3.13	Neutral
I am forced to do multiple tasks rather than my designation	3.64	Agree
I feel comfortable and free working in an office environment	3.43	Neutral
My current job in our organization is increasing my stress level	3.51	Neutral

Table No 2: statistical results of the nominal scale items of the study

Item	Yes	No
Does your organization conduct stress release sessions or workshops?	15	32
Does your organization periodically conduct self and team-analysis feedback processes?	25	22
Are you planning to quit the job at the organization?	Yes	Quit
	15	18
		No
		14

The editor should obey the rules and orders of the owner of the media channel before publishing any content and it should be interpreted as per the views of the channel owner. In deciding which content to be published and how many time it should be highlighted the owner of that particular mainstream media channel play the key role but after the decision the content needs to be built in a professional language whichever language the media is following can be Telugu, Hindi, English, Urdu, Kannada etc. The job of a mainstream media editor is multi-tasking it's not an easy job as you have to give an explanation of every word narrated in audio or written format to the society which makes their job much more complex being heavily responsible for designing the news article or clip. The editors of the organization have partially lost their passion towards the profession due to the miss management or lack of performance management in the organization. Their profession already has a lot of mental pressure due to continuously hearing, reading and recording various societal issues which include domestic violence, political gaming, health hazards, accidents, suicides, rape cases, murders, human trafficking, diseases, environmental disasters and many more. A common man as a reader will have a chance to ignore and skip the news items which creates mental pressure but for the editors, it is mandatory to go through all the news articles allotted to them in depth irrespective of their nature. Continuous exposure on an average of 8-12 hours of the day at times leads to stress, mental trauma, depression, fear, dilemma, and migraine.

News media organizations have their hierarchical structure based on which the channel functions. As fig no.1 shows it can be found that the core work of the news article preparation is on the shoulders of the content editor. The original content may come from the reporter's end or can be copied from news on other channels. The shift incharge will decide which news should be published on the day in their channel according to which the desk incharge will assign the duties to the content editors to prepare news clips and articles.

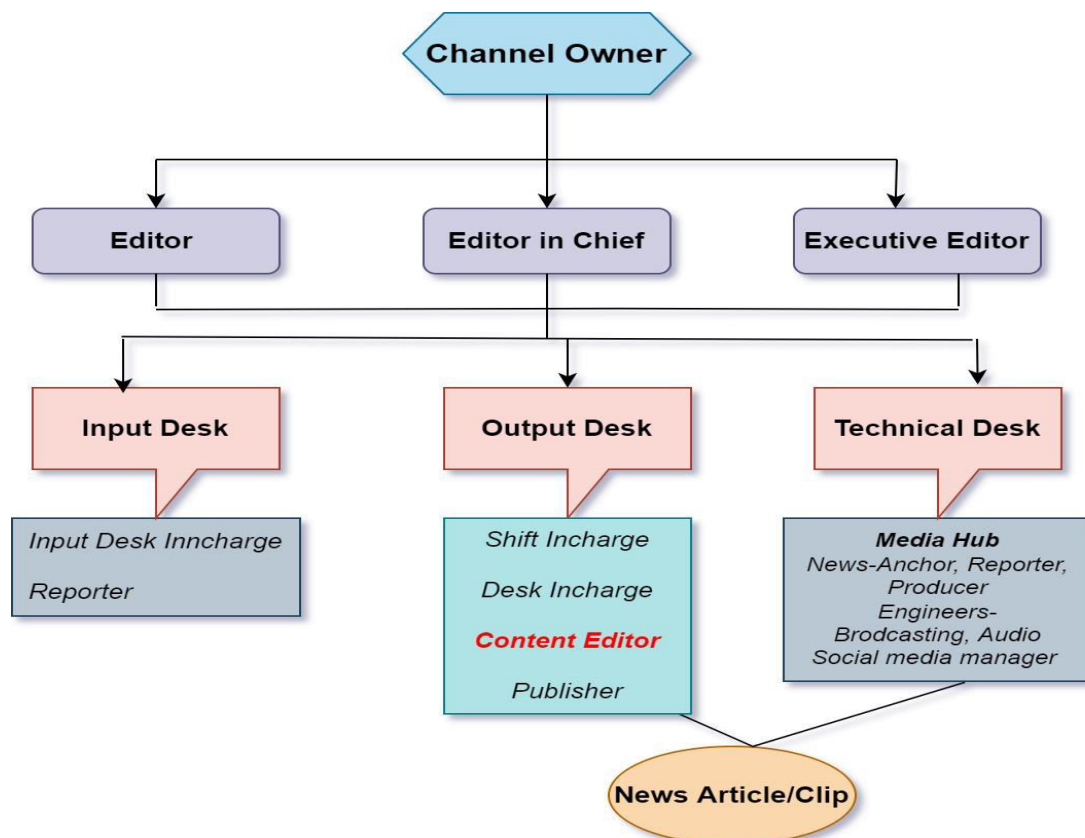


Fig No.2: Organizational Structure of the News Media channels



Fig no. 3: Duties of the Editor

Duties of the Mainstream News Editors: Leaving the top 15 mainstream media channels rest of the mainstream Editors have been overburdened with their multi-tasking responsibilities in building the news reports to the stage of publication. As per their payscale, the duties are extremely overburdened a kind of forced labour. The Editor at a small scale has three categories namely Trainee Editor, Junior Editor, Content Editor and Senior Editor based on which according to their skill they will be given multiple duties to perform. During the study, it was found that When an editor is having more than one skill his skills have been utilised by the organization but he is not paid for his extra labour, this is the point where the editors are experiencing a lot of negative effects on them leading to the decision of attrition. Most often it was found that editors were assigned multiple duties to perform on an average of four.



Fig No. 4: Negative effects on Individual Editor

Negative Effects of Dissatisfaction with the Job

Editors of the study highlighted some negative effects they are facing due to the improper performance management system at their organization. Fig no 3 has highlighted the various negative effects which an individual editor is going through. The burden of duties and in comparison getting less pay is making them face these negative effects. When an employee is unhappy with his work life that will ultimately affect their family life too. Editors stated during the study that they feel as if they are performing forced labour which has made them lose their passion towards their profession. The items in the questionnaire of table no 1 represent that they are not given any promotion, bonus or appreciation based on their talent and the good work they do for the organization. It is understood that when the organisation's employees are unhappy with the organization they will not feel the feel of belongingness which will affect the outputs of the organization's work. The organization has to take care of their employee's job satisfaction level in order to produce good work for the growth of the organization.

Evaluation of Performance Management Concerning Attrition: Performance management plays a key role in the job satisfaction level of the employees. The results of the study have brought four major factors which further led to the two major factors affecting performance management resulting in the performance management crisis. The performance management crisis has ended in the form of attrition as table no 2 data highlights that the majority of them have decided to leave the job. An increase in the turnover ratio of any organization is considered as the black mark to the organization system which will affect its growth in the market. It was found through the study that Editors feel that less job satisfaction, inadequate fare and compensation, absence of reward appraisal strategy, and zero scopes of future growth in the organization have led them to experience Stress. The continuously increased stress levels have turned into the emotion of burnout where the editors felt giving up on the job they have chosen to work for in the organisation.

The Editors leaving their current job after five four to seven years of work in the organisation have chosen their business startups as their career which reflects that the editors have developed so much stress due to improper performance management of the mainstream media that majority of them have decided to leave the field itself and not to work as a content editor further in any other organization. The mainstream media which targets a huge mass population as an audience should be very careful and conscious of their Editor's job satisfaction level to compete with the other media channels in the market and bring their organization to the top 15 list of mainstream media channels.

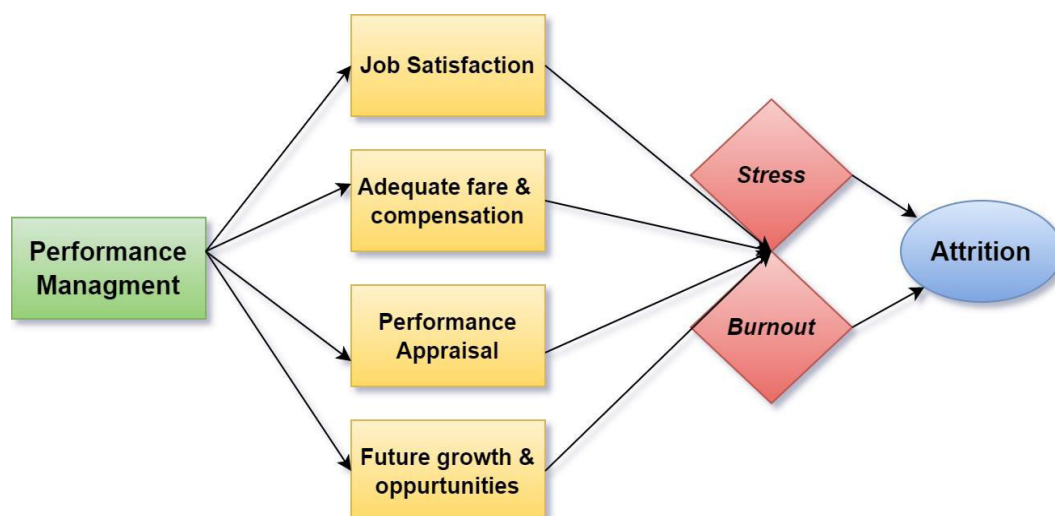


Fig no. 5: A proposed conceptual model of the Study

Performance Management: PM can be defined as “identifying, measuring, and developing the performance of individuals and teams and aligning performance with the strategic goals of the organization” (Aguinis, 2013, pp. 2-3).

Adequate fare and compensation: The pay provided must be appropriate, which means it must be fair to labour, and there must be internal consistency across employee wages.

Performance appraisal: “Performance appraisal is defined as “it is one of the important & critical functions of staffing in management. Human behavior is a complex phenomenon difficult to anticipate accurately” (Gomez Meija, Slabbert, and Swanepoel, 2014).

Future growth & opportunities: This is relevant to employee career considerations. Meaningful career routes must be established, and employees' careers must be mapped out.

Stress: Stress is defined as “any event which may make demands upon the organism, and set in motion a non-specific bodily response which leads to a variety of temporary or permanent physiological or structural changes” (Selye, 1955).

Burnout: Burnout is defined as “the extinction of motivation or incentive, especially where one’s devotion to a cause or relationship fails to produce the desired results” (Freudenberger, 1974, p. 159)

Attrition: Attrition is defined as “Attrition is the departure of employees from the organization for any reason voluntary or involuntary, including resignation, termination, death or retirement” (HR Glossary, 2022).

$$\text{Employee Attrition} = \frac{\text{No. of Employee whole finthe year}}{\text{Number of Employees in an organization in a year}} \times 100$$

Hypothesis test: The null hypothesis has been rejected as the significance level is less than .05 at the 95% confidence level. The alternative hypothesis has been accepted which concludes the major finding of the study that performance management has a significant impact on attrition. Table no 3 results values of R concludes further that the model or result of the study is 75.7% relatable to each other.

R-Value	R square Value	Number-N	Frequency	Significance level at 95% Confidence
.870	.757	47	5.835	.000

Table No. 3: Regression analysis

CONCLUSION

Editor's work life seems to be under pressure due to the performance management crisis at the organisation which is ending in the form of attrition. Editors are losing their passion towards their job and the lack of performance management strategies at the organizations is making their family life face hurdles. The study has found that organization is not concerned about their Editors' mental health and that they are not focusing to conduct counselling sessions to make them feel better to build employee retention. It is very much important to the HR department of the main steam media to focus on their Employee editor's well-being to stop attrition and bring in the practice of good performance management strategies and employee retention. The other suggestion and a point to be concerned about is their pay scale they get around 14k to 16k per month which is not sufficient to live a happy family life in the 21 st century. It is to be concerned that after having a professional degree in Journalism also they are not well paid for their mental and skilful efforts. The labour of the editors and their payscale doesn't co-related with each other so it is high time that the organization, local government and the central government should focus on increasing their pay scale as per their labour which is not adequate.

On the other hand, a sweeper of the offices and gate security staff are paid 12k to 18k in comparison to them Editors who have higher degrees and put in skilful efforts for 8 to 10 hours are paid less or equal to the unskilled and lesser degree professions.

LIMITATIONS OF THE STUDY

- The study is confined to the metropolitan city of Hyderabad.
- The study has a sample size of 47 only.

FURTHER RESEARCH SCOPE

- The same research can be done by taking a larger sample size from more than one state.
- Focusing on Performance Appraisal and job satisfaction micro level a study can be conducted with a questionnaire having more items to represent the different issues in the statistical form.

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POLITICAL AND SOCIAL EMPOWERMENT UNDER DAY NRLM: A STUDY OF HIMACHAL PRADESH

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ABSTRACT

Empowerment of women is important for the growth and development of country. A woman plays an important role within and outside home. Therefore, in this regard various efforts have been made by the government from time to time. Toward the nation's economic, social, and political development. The present study highlighted the role of SHGs (under DAY-NRLM) in political and social women empowerment in India. The results revealed 90 per cent respondents voted, and participated in meetings except those elected as candidates. All the parameters of social empowerment revealed a positive impact on empowerment of women. It further showed parameters such as education of a girl child, education of children, freedom to choose life partner, family planning methods, freedom to visit outside area, visiting the market to purchase raw material, and access to safe drinking water had an association with age. The study concluded that the status of women had improvement in SHGs after joining HSGs

Keywords: NRLM, political, social, SHGs, empowerment

INTRODUCTION

Women empowerment is a process in which women challenge the existing norms and culture, to effectively promote their wellbeing. (Thangamani and Muthuselvi). The empowerment of women is crucial for the economic development of a nation and building a base for social change. In order to improve the conditions of the population of any country, it has become prerequisite to empower women by enhancing and ensuring their role to the optimal level. (Sarania).

NRLM and Political Empowerment

In countries like India, women's political participation is meager than men's. As a part of the empowerment mission for women, political empowerment provides women the various elements of power such as resources, capabilities, and positions. Women play an inclusive role in democratic decision-making processes. It includes giving them access to different political offices and reputable places in the government.

The political empowerment of women is a social process and is crucial for the development and progress of a nation. Though women's political participation is quite encouraging nowadays, the illustration of women in the Indian parliament is far from satisfactory.

NRLM and Social Empowerment

Social empowerment, when given to women, would help them develop a sense of self-sufficiency and self-confidence, and they will feel free to make decisions. An equal control given over their life would lead to change in social relationships and build up a new society where everyone was allowed to make decisions at any phase of life. The study examines the performance of NRLM in building a solid platform for women where they could raise their voices against social exploitation, participate in domestic matters, receive help from others, and, more importantly, make their own decisions.

REVIEW OF LITERATURE

Jagadeeswari (2014) studied the role of NRLM in women's empowerment by concentrating on economic variables. It was conducted in the Trichy district of Tamil Nadu. On the basis of both

primary and secondary data. Primary data was collected from 100 women respondents through interviews by convenience sampling method. In the study, to reach significant results, the data were subjected to analysis of variance. It was found that after joining SHGs, there was an increase in the members' income and significant variation in the level of expenditure before and after joining SHGs. The study concluded a change in the pattern of savings before and after the joining of SHGs and a shift in borrowing patterns. It was suggested in the study that women's participation in SHGs should be encouraged through various ways such as improving women's access to education, demand for education should be generated, women should be given the right skills and public access strategies.

Unnamalai (2014) studied various indicators of women's empowerment. On the basis of secondary data collected, the study showed different hands for women's empowerment, such as economic, social, and political. It revealed that women's empowerment was judged through their contribution to household income, the standard of living, right to go outside the four walls of the house, participation in family matters, right to vote, right to attend panchayats meetings, etc. It further concluded that all these indicators were used by both developing and developed nation

Kumar and Charles (2015), in their study, focused on determining the impact of SHGs on its members. It was conducted in Tamil Nadu and is based on primary data. Primary data was collected from 50 members of SHGs and five bank managers through the interview method. It showed the majority of its members as women, and illiterate and unemployed. The study disclosed after becoming members of SHGs, they got involved in activities such as animal husbandry, little shop, agriculture, and laborer. It further concluded that their income, saving, and standard of living had increased after becoming a member of SHGs. It also highlighted that their social and political status had improved by becoming members of SHGs. The study suggested that efforts should be made to attract rural poor people to form SHGs. It further recommended that various savings and insurance schemes should be launched in SHGs to increase their saving habits. It also proposed that there should be a universal policy for the formation of SHGs, regarding meetings, audits, maintenance of registers and accounts.

Swarnalatha and Ganapathi (2015) studied the impact of SHGs on women's empowerment in the Namakal district of Tamil Nadu. On the basis of primary and secondary data were collected from 300 respondents through a structured questionnaire, and a t-test was used to analyze the data. The study revealed most women as young, illiterate, and belonged to a backward caste. It also showed that most women were engaged in agriculture, followed by petty business and vegetable sellers. The study indicated increased women's savings after joining SHGs and getting more respect from their neighbors, family, community, and society. It further revealed active participation in cultural activities followed by cultural gatherings, religious functions, dressing sense, and cultural events.

Sabar (2017) assessed the perceptions of tribal women regarding empowering them through SHGs in the Gajapati district of Odisha. On the basis of both primary and secondary data collected from 6 members of Mahalaxmi SHG at Bangosahi. The study results showed that after joining to SHGs, the situation of tribal women became good. They had a savings account in the bank with regular savings and helped them to avail a loan for various economic activities. It also disclosed that after joining SHGs, the knowledge of tribal women regarding political awareness had increased. The study further revealed that most women were illiterate, engaged in agriculture, and depended on daily wages. It concluded SHGs played an essential role in empowering women

Objectives of the Study: The present paper is an attempt to analyze the role of DAY-NRLM in political and social empowerment of women.

Research Methodology: The study was based upon primary data and conducted in the two districts of Himachal Pradesh. In the study, two districts, i.e., Kangra and Hamirpur, was selected basis of population. Further, four blocks from each of these districts, such as Baijnath, Sullah, Panchurukhi, and Bhawarna blocks, were selected in the Kangra district, and Bhoranj, Bhijari, Bamson and Hamirpur in the other district under study i.e. Hamirpur district. The data was collected from 330 beneficiaries from 100 SHGs through a structured questionnaire, i.e., 170 respondents from 50 SHGs in Kangra District and 160 respondents from the 50 SHGs in Hamirpur District. Data was analyzed using a percentage, mean, standard deviation, chi square.

Selection of Parameters: To understand the role of NRLM, various parameters had been selected such as parameters i.e., (the right to vote, association with political persons, participation in political meetings, and position as a political member to explore the impact of NRLM on the political empowerment of women in select districts of Himachal Pradesh were taken into consideration regarding poverty.

ANALYSIS AND RESULTS

Table 1 Respondents benefitted from the scheme of NRLM

	Frequency	Percent	Cumulative Percent
Yes	292	88.5	88.5
No	38	11.5	100.0
Total	330	100.0	

Source: (Complied from data collected)

Table 1 showed 88.5 percent of the respondents were benefitted from the scheme of NRLM. However, the benefit has not been reached to 11.5 percent of the respondents under study. The study is continued further, with the respondents who were benefitted with the scheme i.e., 292 respondents

Demographic profile: It indicated the demographic characteristics of the beneficiaries in term of age and Education

Table 1.1 Demographic Profile

Age	Frequency	Percent	Cumulative Percent
<25	7	2.4	2.4
26-35	119	40.8	43.2
36-45	121	41.4	84.6
>45	45	15.4	100.0
Total	292	100.0	
Education			
Illiterate	31	10.6	10.6
Primary	63	21.6	32.2
Middle class	137	46.9	79.1
Graduation	44	15.1	94.2
Post-graduation	10	3.4	97.6
Above Post-graduation	7	2.4	100.0
Total	292	100.0	

Source: (Complied from data collected)

Table 1.1 depicted demographic characteristics of the respondents. Out of the total respondents, 40.9 per cent of respondents belonged to the age group of 26-35 years, and 40.6 per cent of them belonged to the age group of 36-45 years, followed by 16.8 per cent who belonged to age above 45 years, whereas only 2.4 per cent of them were from less than 25 years of age group. In terms of other demographic factor i.e., education, 44.8 per cent of respondents were educated

up to the middle class, followed by 24.2 per cent who had just passed a primary school, and 16.4 per cent of them completed their graduation. In contrast, only 1.8 per cent of respondents had done post-graduation, and very few respondents had attained education above post-graduation. 11.5 per cent of respondents were illiterate

Women voted in Election: Women participate in voting, run for public offices and political parties at lower levels more than men. It indicated number of women passed their voting in elections

Table 1.2 No. of respondents voted in election

	Frequency	Percent	Cumulative
Yes	264	90.4	90.4
No	28	9.6	100.0
	292	100	

The table 1.2 showed 90.4 per cent of the respondents voted in elections while 9.6 per cent respondents had not voted.

Association with political parties: It indicated the awareness of women regarding different political persons.

Table 1.3 Association with Political Person

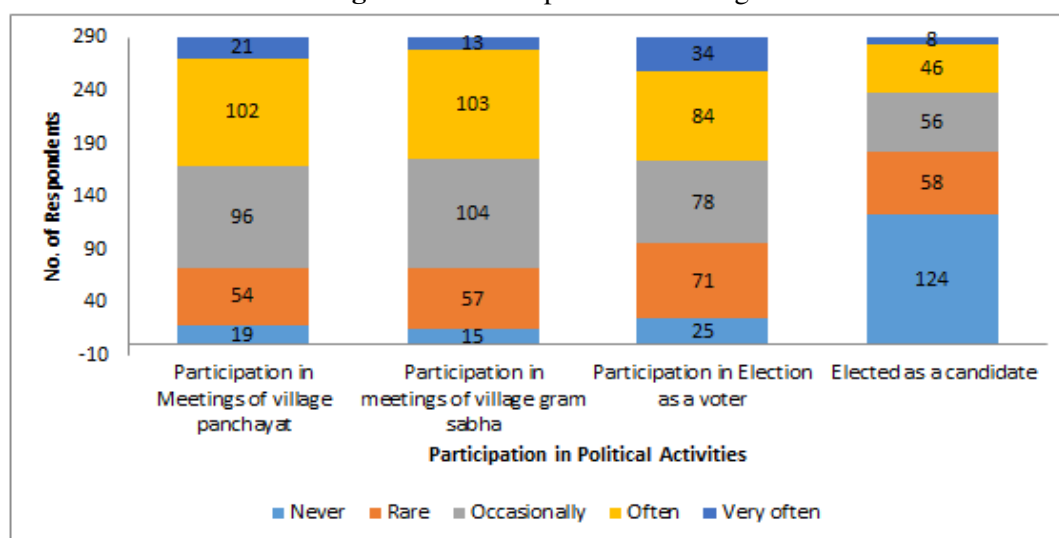
	Frequency	Percent	Cumulative Percent
Recognise sarpanch and know name	24	8.2	8.2
Recognise sarpanch and CM and know name	18	6.2	14.4
Recognise sarpanch, CM and PM and know name	250	85.6	100.0
Total	292	100.0	

Source: (Complied from data collected)

Table 1.3 depicted that most members recognized and knew the name of Sarpanch, CM, and PM, followed by respondents who only knew the sarpanch, and very few respondents knew both Sarpanch and CM.

Participation in Meetings: It showed participation of women in different meetings

Figure 2.1. Participation in meetings



Source: (Complied from data collected)

Figure 2.1 showed a majority of the women had participated in the meetings of the village panchayat, gram sabha, and election as a voter, followed by respondents who had often experienced the above meetings. Whereas around 20 per cent of the respondents stated they very often participate in overhead discussions. Furthermore, 25 percent per cent respondents said they occasionally attended the meetings. On the other hand, very few respondents had ever experienced the meetings mentioned above. Most respondents stated they had not participated in the election as a candidate. 15 per cent of respondents said they often participated as candidates. Further, 19 per cent of respondents occasionally attended elections as candidates. Very few respondents stated they very often participate as candidates.

Descriptive statistics: The descriptive statistics was calculated which includes minimum and maximum score, mean value and standard deviation. The mean value represents the mean score of the performance of the scheme in achieving the objective of women empowerment.

Table 1.4 Descriptive statistics of participation of women in meetings

	N	Minimum	Maximum	Mean	Std deviation
Meeting of Village panchayat	292	1.00	5.00	3.1781	1.02669
Meeting of gram sabha	292	1.00	5.00	3.1438	.95601
Election as a voter	292	1.00	5.00	3.1062	1.15427
Elected as a candidate	292	1.00	5.00	2.1644	1.21292
Valid N (List wise)	292				

Source: (Complied from data collected)

Table 1.4 depicted that out of the various parameters used in the study, the village panchayat meetings, the gram sabha discussion, and the election as a voter were considered positive indicators as their mean value was inclined towards maximum value. On the other hand, the mean value of elected as a candidate was regarded as a negative indicator as their mean value was inclined towards minimum value. So, various efforts should be made by the government to improve the performance of the above parameter. Moreover, as per the member's responses, the standard deviation was relatively low. Therefore, it could be interpreted that not much variation was found in the responses of members.

In order to examine the association between various parameters, chi-square test was applied. The hypothesis formulated was

H₀1: There is no association between political empowerment of women and its demographic characteristics of respondents (age and education).

H₀2 There is no association between NRLM on social empowerment of women and its demographic characteristics of respondents (age and education).

Chi Square Test: Chi square test was applied to know the association exist between various parameters with age and education

Table1.5 Chi square test for Meetings with age and education

	Asymp. Sig. (2-sided)	
	Age	Education
Meeting of Village panchayat	.073	.001
Meeting of gram sabha	.004	.000
Election as a voter	.007	.000
Elected as a candidate	.067	.000

Source: (Complied from data collected)

Table 1.5 depicted the association tested through the chi-square test for age and education. It showed for age the value of meetings of gram sabha and for education all the factors had value less than 0.05 therefore, the null hypothesis was rejected for above factors. (Ho1). It showed the association exist among these factors with age and education. Whereas the value of all other factors was more than 0.05 therefore failed to reject the null hypothesis (Ho1). It revealed no association exists among these factors with age and education.

Social Empowerment: It includes following parameters:

Table 1.6 Social empowerment

	Frequency	Percent	Cumulative Percent
Able to raise voice against social exploitation			
Not at all	31	10.6	10.6
Less confident	98	33.6	44.2
More confident	163	55.8	100.0
Total	292	100.0	
Participated in General domestic matters			
Never	48	16.4	16.4
Occasionally	92	31.5	47.9
Always	152	52.1	100.0
Total	292	100.0	
Received help of other family members			
Never	31	10.6	10.6
Occasionally	88	30.1	40.8
Always	173	59.2	100.0
Total	292	100.0	

Source: (Complied from data collected)

Table 1.6 depicted that most female members found themselves more confident when raising voices against social exploitation, participating in general domestic matters, and receiving help from other family members. In a statement able to raise their voice against colonial exploitation, 55.8 percent of respondents stated that they were more confident. In contrast, 33.6 percent of members showed less confidence, and 10.6 percent showed no confidence. In the statement participated in general domestic matters, more than 50 per cent of respondents always participated in available cases. In contrast, 31.5 percent of members occasionally experienced general issues, and 16.4 percent never participated in public matters. In the statement received help from other family members, out of 292 respondents, 59.2 per cent always received help, while 30.1 percent of members received support occasionally and 10.6 members showed never received help. The study showed that women were socially empowered after being a part of NRLM.

Table 1.7 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std Deviation
Regarding education of your children	292	1.00	5.00	3.5068	1.00683
Regarding education of girl child	292	1.00	5.00	3.3596	1.09551
Regarding carrier of your children	292	1.00	5.00	3.3836	1.06658
Freedom to choose life partner	292	1.00	5.00	3.0788	1.39856

Freedom to choose family planning methods	For 292	1.00	5.00	3.3390	1.15088
Interaction within the community has increased	292	2.00	5.00	4.0103	.78423
Freedom to visit outside area of your living has increased	292	2.00	5.00	3.9897	.74375
Visiting market for the purchase of raw material and household goods	292	1.00	5.00	4.0308	.83876
Awareness of health services has increased	292	1.00	5.00	3.9212	.82734
Facility of immunization of child has increased.	292	2.00	5.00	3.9144	.76625
Access to safe drinking water has increased.	292	2.00	5.00	3.9760	.73413
Valid n list wise	292				

Source: (Complied from data collected)

Table 1.7 depicted that all the parameters mentioned in the above table for social empowerment are considered positive indicators as their mean value was inclined towards maximum value. However, the standard deviation interaction within the community, freedom to visit outside area of your living, visiting market for the purchase of raw material and household goods, awareness of health services, facility of immunization of child, access to safe drinking water had a value of standard deviation relatively low. Therefore, it could be interpreted that not much variation was found in the responses of members.

Table 1.8 Chi square test for social empowerment for age and education

	Asymp. Sig. (2-sided)	
	Age	Education
Regarding education of your children	.000	.000
Regarding education of girl child	.036	.000
Regarding carrier of your children	.238	.001
Freedom to choose life partner	.020	.000
Freedom to choose family planning methods	.040	.000
Interaction within the community has increased	.253	.032
Freedom to visit outside area of your living has increased	.006	.089
Visiting market for the purchase of raw material and household goods	.001	.000
Awareness of health services has increased	.121	.054
Facility of immunization of child has increased.	.136	.087
Access to safe drinking water has increased.	.032	.384

Source: (Complied from data collected)

Table 1.8 depicted the association tested through chi-square test for age and education. it showed for age association exist among all factors (value less than 0.05) therefore null hypothesis failed to be rejected (Ho2) for these factors except: carrier of children, interaction within community, awareness of health services, facility of immunization (value more than 0.05). For education again association exist among maximum factors (value less than 0.05) therefore null hypothesis was failed to be rejected (Ho2) except visiting outside area of living, awareness of health service, facility of immunization of child, access to safe drinking water.

CONCLUSION

The independence of women carried down the problem of equality by assuring their equal rights of participation in the political process and by providing equal opportunities for decision-making in social empowerment. The present study examined the role of NRLM in the districts of Himachal Pradesh. The role of NRLM covered the analysis of the different parameters of the right to vote, association with political persons, participation in political meetings and positions, Ability to raise voice against social exploitation, Participation in General domestic matters, family support, and help. The study also examined the association between women's empowerment and demographic factors. The results showed that more than 90 per cent of respondents voted in elections, and the majority of respondents had an association with political persons and participated in all meetings except elected as a candidate. It revealed that education had an association with all political factors. All the parameters of social empowerment positively impacted women's empowerment. It further showed parameters such as education of a girl child, education of children, freedom to choose life partner, family planning methods, freedom to visit outside area, calling the market to purchase raw material, and access to safe drinking water had an association with age. Education was also one of the critical factors associated with various parameters of social empowerment. The study concluded that the status of women had improved after joining SHGs under (Day NRLM).

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PRODUCTION EFFICIENCY OF RURAL BRANCHES: A SPECIAL REFERENCE TO ASSAM GRAMIN VIKASH BANK

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ABSTRACT

Objective: *The objective of the present study is to examine the production efficiency/inefficiency and determine the influential factors that affects the efficiency/inefficiency level of ninety-seven AGVB Branches from 2010-2011 to 2016-2017.*

Methodology: *The article applied the DEA for measuring the level of efficiency and censored Tobit regression for determining the impact of influential determinants on level of efficiency.*

Findings: *Two branches are fully efficient and ninety-five branches are inefficiency under the input as well as output-oriented approaches. The study shows that mean productive efficiency score is 73 percent (Under TECRS-OOM), 77 Percent (PTEVRS-OOM) and 95 percent (SE-OOM) and 73 percent (Under TECRS-IOM), 80 Percent (PTEVRS-IOM) and 91 percent (Under SEIOM). It means that there is a huge opportunity to reduce the inputs without compromising the output level on the other hand output level could be increased without injecting additional the input variables.*

Practical Uses: *Since, all selected AGVB branches are not fully efficient. The management should review the inefficient branches to achieve their full efficiency levels in coming days. Regulators are suggested to provide technical support, promote competition, and monitor the performance of the branches periodically.*

Branch asset (size), off-balance sheet activities of branches, loan quality (NPA), and non-interest expenditure are the most influential factors of level of efficiency. So, branch manager can try to attract prospective customers from outside the existing market and also try the innovative idea to reduce the LQ (NPA).

Originality: *To the best of our data, this paper is the first of its kind that evaluate production efficiencies of AGVB branches in Assam.*

Keywords: AGVB, DEA, Efficiency, Tobit Regression, Branch, Production

INTRODUCTION

The banking industry is one of the most complex sectors in the world. It is a key contribution to a country's wealth. Hence, several studies have shown a good relationship between the efficiency of the banking system and a country's GDP (Rajan and Zingales, 1998; Gulati, 2011). According to Rajan and Zingales (1998), an efficient banking sector provides the way to achieving economic growth through putting savings to fruitful use, mobilization of financial savings, and transforming various risks.

The Indian banking sector is featured a well-developed banking system. At present, 22 private sector banks, 12 public sector banks, 43 regional rural banks, 44 foreign banks, 96,000 rural cooperative banks in addition to cooperative credit institutions, and 1,484 urban cooperative banks are providing different financial services across the country, India had 213,145 ATMs overall as of September 2021, with 47.5 percent of those being situated in rural and semi-urban areas. But the market is dominated by public sector banks that have their bank branches in different parts of the country. Although co-operative and commercial banks achieved a high outreach and disbursement of credit, still there existed a huge gap in the area of rural credit (Prashanth, 2015; Deb, 2011; Ahmed, 2014). To bridge the institutional credit gap in rural areas through increased development capabilities, a new category of banks was set up under the

provisions of an ordinance passed in September 1975 and the RRBs Act 1976. The RRBs were started with a vision to lift the rural economy. It can be done by giving farmers, agricultural workers, craftspeople, and small business owners access to rural credit (Chanu & Das, 2016). The RRBs are jointly owned by the Government of India, the concerned State Government, and sponsored banks.

AN OVERVIEW OF ASSAM GRAMIN VIKASH BANK (AGVB)

There are four hundred seventy-three branches of AGVB operating in thirty-four districts of Assam (2nd Annual Report, 2020-2021). In the year 1st April 2019, 'AGVB' and 'Langpi Dehangi Rural Bank (LDRB)' were amalgamated and formed AGVB. The amalgamated AGVB of the North East Region continues to be the largest RBB in the North Eastern Region both in terms of branch network and business. Interestingly, around 76 percent of branches have been established in rural areas, 20 percent of branches have been established in semi-urban areas, and 4 percent of branches have been established in urban areas. Annual Report 2020-2021 also reveals that per branch productivity was Rs. 33.72 crores, and per employee productivity was Rs. 9.63 crore. In addition to that, the Bank has registered 261312 Nos. Kisan Credit Cards Total SHGs Account. Because of rural area penetration, the bank plays a significant role in the upliftment of rural livelihood.

REVIEW OF LITERATURE

Bank branches work like frontier soldiers that at last win or lose the fight for sustaining the bottom line of the banking system. So, efficiency at bank branch level is the important to sustainability of long run feasibility and also profit making. Performance efficiency of each branch is highlighted in bank's Annual Financial Statement but it is also noticed that performance is measured by conventional approach (i.e. ratio analysis). According to Berger & Mester (1997), a financial organization's performance is a multidimensional construct, it should be assessed using multidimensional indicators rather than traditional performance-based metrics.. Following the research paper are used

Paradi & Schaffnit, (2004) studied the production efficiency of 90 Canadian banks with the help of DEA models and four outputs variables (deposits, loans, operating services, account maintenance) and four inputs variables (information technology, staff, rent, and other non-interest expenses) were used.

Qureshi et al., (2012) studied the production and profitability efficiency of Pakistan's twenty commercial bank branches by using the DEA model for the financial year 2009-2010. The study showed that two bank branches were efficient and eight bank branches were not efficient.

Eken & Kale, (2011) applied DEA for measuring the level of efficiency of branches. In the study, both production and profitability approaches were used and bank branches were grouped according to different sizes and regions. Their result shows that branch size and scale efficiency were related. Increase the branch size, scale efficiency also increased.

Camanho & Dyson, (2005) studied bank branch performances by using the DEA model where three inputs and four outputs were used to measure (in)efficiencies from a cost minimization perspective. On the other side, inputs were decreased from their current levels to the cost-efficient objective, which allowed the branch profitability to increase by 16 percent.

Selected brief review of literature related to branch level of efficiency analysis by using DEA technique: these are Vassiloglou and Giokas, (1990) studied twenty Greece Bank Branches; Hassan et al., (1990) studied three hundred and twenty two bank branches; Drake and Howcroft, (1994) studied one hundred and ninety United Kingdom bank branches; Thanassoulis, (1999) investigated the British and Finland bank branches; Camanho and Dyson, (1999) studied one hundred sixty eight Portuguese bank branches; Mitropoulos et al. (2003) studied thirty nine

Commercial Bank branches of Greece; Portela et al. (2004) studied fifty nine Portuguese bank branches; Camanho and Dyson, (2005) studied bank branch; Wu et al. (2006) studied fifty Canadian bank branches; Al-Tamimi and Lootah, (2007) studied fifteen United Arab Emirates bank branches; Donatosi and Giokas, (2008) studied forty Greek bank branches; Yang, (2009) studied forty Canadian bank branches;

Last ten years, few study on efficiency on bank branches was done by Deb, (2011) (studied seventy two commercial bank-branches in North East Region); Qureshi et al. (2012) (studied Pakistan's twenty commercial bank branches); Zarinkamara and Alam-Tabrizb, (2014) (studied thirty bank branches of Tehran); Takbiri et al. (2015) (studied one hundred twenty bank branches of Tehran); Chanu and Das, (2018, March) (studied nineteen branches of the Assam Gramin Vikash Bank); and Chanu and Das, (2018) (studied seventy AGVB branches). The above review of literature we can find that AGVB branch level study was being done in two research articles. Therefore, rural based banks needs more study to uncoil some hidden facts.

OBJECTIVE

Objective of the present study is to examine the production efficiency of 97AGVB Branches; secondly, to determine its influential factors that affect the efficiency level for the period of seven financial years from 2010-2011 to 2016-2017. The review of the literature reveals that the different techniques of measuring the efficiency level of bank branches are traditional ratio analysis, a non-parametric technique like Data Envelopment Analysis, and a parametric technique like Stochastic Frontier Analysis. To know the level of efficiency of bank branches, it is important to measure the technical efficiency of the bank branches. The factors influencing efficiency can be determined by applying the Tobit Regression model in DEA. Thus, the present paper is an attempt to fill up the existing research gap. Since, bank's branches work like a frontier soldier. When each branch is fully efficient then bank automatically fully efficient. This is the reason present study is very important.

Description of Data

The paper makes use of data pertaining to AGVB for seven years, ranging from 2010-2011 to 2016-2017. For the estimation purpose, the present study considered 97 branches (Out of 473 branches), though all the branches have installed Core Banking System at present, the study considers those branches which installed CBS in 2010-11.

Efficiency Measurement Approaches

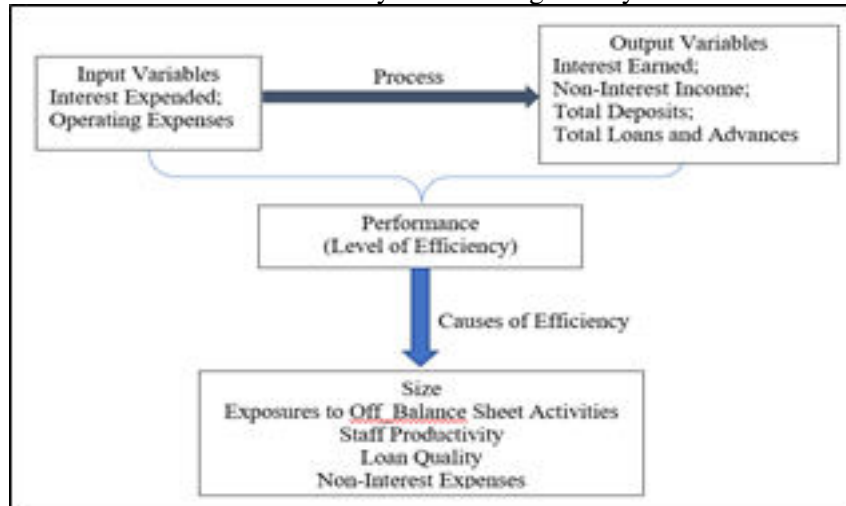
The present study used input and output-oriented approach for measuring the efficiency. Input oriented approach implies how much input quantity can be reduced without decreasing the output variables. How much the output variables can be proportionally enhanced without adding the input amounts is referred to as an output-oriented strategy.

Selection of Variables and Its' Determinants of Efficiency

The main problem of any efficiency measurement technique is the selection of inputs variable and outputs variable (Ramanathan, 2003). Because, it is a subjective matter. There is no specific rule for selecting of input and output bundles (Gebremichael, 2013). Review of literature showed that there are two dominant approaches; these are: production approach and intermediation approach (Sealey and Lindley, 1977; Berger and Humphrey, 1997; Deb, 2011, Singh, 2013). Berger & Humphrey, (1997) outlined how a production method is appropriate for gauging bank branch efficiency levels.. Hence, in the present study, we used production approach. The objective of this approach is to improve the reality of the performance and allows branch managers to clearly see their operations' strengths and deficiencies (Paradi et al. 2011). Two inputs (interest expended and operating expenses) and four output variables (interest earned, non-interest income, total deposit and total loans and advances) are chosen on the basis of production technique to measure the level of Production efficiency.

The independent variables, which are considered in the Tobit regression model are Exposures to off- balance sheet activities, Size (Size), Staff Productivity, Loan Quality (NPA) and Non-Interest Expenses (NIE). Calculated efficiency scores are regressed with selected independent variables, and try to examine where there is some significant linear relationship between them.

Flow Chart 1 Summary of Two Stage Analysis Process



Source: Researcher's Compilation

MODELS APPLIED IN THE STUDY

Data Envelopment Analysis Technique

Production efficiency may be measured by using Data Envelopment Analysis technique. It is a linear programming based method to calculate the level of efficiency of homogeneous organizational units. These units are known as Decision Making Units (Ramanathan, 2003). The best performing DMU is assigned an efficiency score of units and the least performing DMU is assigned a score less than that which is minimum zero. The DEA model calculates the relative efficiency of each branch without taking on the previous production function (Chebat, et al., 1994). Technical Efficiency (TE) is decomposed into two components: Scale Efficiency and Pure Technical Efficiency (Gulati, 2011). So, relationship among them are : $TE = SE \times PTE$. Camanho et al. (1999) stated that TE scores are found by estimating the efficient frontier under the assumption of Constant Returns-to-Scale (CRS), PTE measure is obtained under the assumption of Variable Returns to Scale (VRS). (In the study TE is indicated by TE_{CRS} and PTE is indicated by PTE_{VRS}). DEA model is using in the present study because it deals with multiple inputs and outputs at a time. The technique carries few limitations such as it does not explain random error, it means any deviation from the frontier line is assumed to be inefficient.

TE_{CRS} AND PTE_{VRS} UNDER DATA ENVELOPMENT ANALYSIS MODEL

In the year 1978, the CCR model was developed by Charnes, Cooper and Rhodes, it is also known as Constant Returns-to-Scale (CRS) (Ramanathan, 2003). In this model outputs change in direct proportion to the change in inputs regardless of the size of the Decision Making Unit.

The application of CCR model provides TE scores for individual bank branches Input as well as output-oriented approach are two distinct variants of the CCR model (Kumar and Gulati, 2014). In the present study, both the orientations are used. In the year 1984, the BCC model was developed by Banker, Charnes and Cooper.

Returns-To-Scale (RTS) variable is an extension of the CCR model. The Technical efficiency is equal to Constant Returns to Scale plus Pure Technical efficiency is equal to Variable Return to Scale under DEA technique.

DEA Model Is Summarized As Follows

If $E_o^* = 1$ or $F_o^* = 1$, then the Decision Making Unit under evaluation is a frontier point. i.e., there is no other Decision Making Units that are operating more efficiently than this Decision Making Unit. Otherwise, if $E_o^* < 1$ or $F_o^* > 1$, then the Decision Making Unit under evaluation is not efficient. That is this Decision Making Unit can either decrease its input levels or increase its output levels.

The left-hand-side of the models is called the “Reference Set”, and the right-hand-side represents a specific Decision Making Unit under evaluation. The non-zero optimal λ_j^* represent the benchmarks for a specific Decision Making Unit under evaluation. The reference set provides coefficients (λ_j^*) to explain the hypothetical efficient Decision Making Unit. The Reference Set shows how inputs are reduced and outputs are increased to make the Decision Making Unit under evaluation efficient.

Table 2 Data Envelopment Analysis Formula

Input Oriented Approach	Output Oriented Approach
TE_{CRS}	
$\min E_o = \theta_o^{CCR} - \varepsilon (\sum_{r=1}^S S_r^+ + \sum_{i=1}^m S_i^-)$ Subject to: $\sum_{j=1}^n \lambda_j X_{ij} + S_i^- = \theta_o^{CCR} X_{io} \quad i = 1, 2, \dots, m$ $\sum_{j=1}^n \lambda_j Y_{rj} - S_r^+ = Y_{ro} \quad r = 1, \dots, S$ $\lambda_j, S_i^-, S_r^+ \geq 0$ $0 < \varepsilon \leq 1$ $S_i^- = \text{Input slacks}; S_r^+ = \text{Output slacks}.$	$\max F_o = \phi_o^{CCR} + \varepsilon (\sum_{r=1}^S S_r^+ + \sum_{i=1}^m S_i^-)$ Subject: $\sum_{j=1}^n \lambda_j X_{ij} + S_i^- = X_{io} \quad i = 1, 2, \dots, m$ $\sum_{j=1}^n \lambda_j Y_{rj} - S_r^+ = \phi_o^{CCR} Y_{ro} \quad r = 1, \dots, S$ $\lambda_j, S_j^-, S_r^+ \geq 0$ $S_i^- = \text{Input slacks}; S_r^+ = \text{Output slacks}.$
PTE_{VRS}	
$\min E_o = \theta_o^{BCC} - \varepsilon (\sum_{r=1}^S S_r^+ + \sum_{i=1}^m S_i^-)$ Subject to: $\sum_{j=1}^n \lambda_j X_{ij} + S_i^- = \theta_o^{BCC} X_{io}$ $\sum_{j=1}^n \lambda_j Y_{rj} - S_r^+ = Y_{ro}$ $\sum_{j=1}^n \lambda_j = 1$ $\lambda_j, S_i^-, S_r^+ \geq 0$	$\max F_o = \phi_o^{BCC} + \varepsilon (\sum_{r=1}^S S_r^+ + \sum_{i=1}^m S_i^-)$ Subject: $\sum_{j=1}^n \lambda_j X_{ij} + S_i^- = X_{io}$ $\sum_{j=1}^n \lambda_j Y_{rj} - S_r^+ = \phi_o^{CCR} Y_{ro}$ $\sum_{j=1}^n \lambda_j = 1$ $\lambda_j, S_j^-, S_r^+ \geq 0$

Note: In this study, CCR model is indicated by TE_{CRS} and BCC model is indicated by PTE_{VRS}

Source: Zhu, (2009), P. 13

ANALYSIS AND DISCUSSION OF RESULTS:**STAGE: I****Production Efficiency**

Table 3 presents the average efficiency scores of production process. During the study period, average efficiency of branches under TE_{CRS} is 73 percent; under PTE_{VRS} is 80 percent while SE is 91 percent under input-oriented approach. On the other side, during the study period, average efficiency of branches under TE_{CRS} is 73 percent; under PTE_{VRS} is 77 percent while SE is 95 percent under the output-oriented approach. It is noticed that PTE_{VRS} is lower than the SE under

the both approaches. This indicates that technical in-efficiency of the selected branches is mainly due to the pure technical in-efficiency instead of the scale inefficiency. Under both approaches it is also clear that the relatively low PTE_{VRS} in comparison to SE indicates that inefficiency is mostly due to inadequate management practices, other than to inappropriate branch size.

Table 3 Composite Statistical Summary of Efficiency Scores from 2010-11 to 2016-17

DMUs	Output Oriented Approach			Input Oriented Approach		
	TE_{CRS}	PTE_{VRS}	SE	TE_{CRS}	PTE_{VRS}	SE
No. of DMUs	97	97	97	97	97	97
No. of efficient DMUs	02	04	02	02	04	02
Number of inefficient DMUs	95	93	95	95	93	95
Max efficiency score	100%	100%	100%	100%	100%	100%
Min efficiency score	50%	51%	74%	50%	59%	69%
Std. dev of efficiency	11%	12%	5%	11%	10%	7%
Average efficiency score	73%	77%	95%	73%	80%	91%
Average inefficiency score	27%	23%	5%	27%	20%	9%
Percentage of the DMU in 1	2%	4%	2%	2%	4%	2%

Source: Researcher's calculation

Table 3 provides summary information about the number of efficient/inefficient bank branches observed. During the study period, 2 no. of fully efficient branches under TE_{CRS} and SE are 2 no. and under PTE_{VRS} , there are 4 branches. Hence, there are 95 inefficient branches in the TE_{CRS} and SE, under PTE_{VRS} , there are 93 inefficient branches. Under both approaches, mean efficiency score of the selected branches is less than 100 percent. It means that the branches could reduce inputs without sacrificing output bundles or branches could increase outputs without introducing additional inputs.

Descriptive statistics for TE, PTE and SE under both approaches are shown in Table 4. This table shows clearly that branch sizes have influenced on level of efficiency. It is found that mean level of efficiency is not same among the different size groups. PTE (Inefficiency) is much more serious issue than SE (Inefficiency) for the bank's branch, specially for the micro, and small branches under the both approaches (Paradi, et. al. 2010). We have noticed in the table that under the IOA, large branch presents the highest scale efficiency, on the other hand under the IOA, small branch presents the highest scale efficiency. PTE of large branch size implies that the large assets size has more advantages in terms of utilizing the minimum inputs by producing maximum outputs.

Table 4 Composite Efficiency Scores of Branch Size (2010-2011 to 2016-2017)

Sizes	Input Oriented Approach			Output Oriented Approach		
	TE_{CRS}	PTE_{VRS}	SE	TE_{CRS}	PTE_{VRS}	SE
Micro	64.57%	78.33%	82.57%	64.57%	71.16%	90.74%
Small	70.43%	77.07%	91.06%	70.43%	72.75%	96.81%
Medium	71.73%	76.93%	93.16%	71.73%	74.16%	96.72%
Large	84.19%	87.65%	96.09%	84.19%	88.88%	94.73%

Source: Researcher's Calculation

Considering the difference among micro, small, medium and large efficiency scores, we further investigate whether there is any significant difference of level of efficiency scores among different size groups. To do this, Krushkal-Wallis Test is used and in Table 5 presents the result. This table shows p value in both approaches is less than 0.05, therefore, null hypothesis is rejected. There is a statically significant difference of efficiency scores among different size groups. It means large branches are more production efficient as compared to other branch sizes groups under the both approaches.

Table 5 Testing of hypothesis of different Branch sizes Scores (2010-11 to 2016-17)

Year		Input Oriented Approach			Output Oriented Approach		
		TE _{CRS}	PTE _{VRS}	SE	TE _{CRS}	PTE _{VRS}	SE
Composite Study Period	H	14.07	12.09	14.08	14.07	16.73	17.73
	P	0.003	0.005	0.003	0.003	0.002	0.000
	Statistical Inference	Rejected Ho	Rejected Ho	Rejected Ho	Rejected Ho	Rejected Ho	Rejected Ho
H= Krushkal-Wallis Test, P= P value, R =Result, (5% Level of Significance)							

Source: Researcher's Calculation

Determinants of Production Efficiency

Stage: Ii

Tobit Regression Model

The purpose is to examine the determinants of different DEA scores influencing the efficiency level of the ninety-seven branches. The present article has used censored regression model. It is an appropriate method. Because, when value of dependent variable falls between 0 and 1 (0 % to 100 %).

The regression estimates of the first stage efficiency on the independent variables. In this case, we have considered five independent variables – branch size, staff productivity, exposures to off-balance sheet activities, loan quality (NPA) and non-interest expenses. For size, it is hypothesized that the large size branches are more efficient as compared to other sized branches. For Exposures to off- balance sheet activities, it is hypothesized that Greater exposure to non-traditional activities will increase the efficiency of bank branches. For Staff Productivity, it is hypothesized that it is a positive relationship with efficiency score. For Loan Quality (NPA) and Non-interest Expenses, it is hypothesized that lower levels of its value will indicate in higher level of efficiency. Production efficiency model may be specified as:

Production Efficiency = f(Size, Off_Balance, SP, LQ, NIE) -----(A)

$Y_i^* = \alpha + \beta_1(\text{Size}) + \beta_2(\text{OFF\_BALANCE}) + \beta_3(\text{SP}) + \beta_4(\text{LQ}) + \beta_5(\text{NIE}) + \varepsilon$

Table 6 Tobit Regression Result

Sl. No	Symbol	Depended Variable: TE _{CRS}			Depended Variable: PTE _{VRS}		
		Coefficient	z	p-value	Coefficient	z	p-value
Independent Variables							
1	Constant	0.11914	0.816	0.414	0.7586	5.261	<0.000***
2	SIZE	0.30421	3.219	0.0013***	0.1675	1.820	0.0686*
3	OFF_BALANCE	84.0774	13.120	<0.000***	61.974	9.836	<0.000***
4	SP	-0.16638	-1.696	0.0898*	-0.16514	-1.731	0.0833*
5	LQ	-0.15681	-3.153	0.0016***	-0.12721	-2.626	0.0086***
6	NIE	-0.17859	-6.766	<0.0001***	-0.19936	-7.650	<0.0001***
**** = 1%, *** = 2%, and ** = 10%							

Source: Researcher's Calculation

The objective is to explore the independent variables that affect the productive efficiency of the ninety-seven branches. It is hypothesized that all independent variables have same influential factors that affect the efficiency level. Tobit analysis (Table 6) shows that (i) As P value corresponding to Constant is less than 0.05, we reject the Null Hypothesis (Ho) that the constant is non zero. This means we can not delete the constant in the above model. (ii) large branch sizes have positive effect on the level of efficiency (because the coefficient of determination is positive), it means total assets (each branch size) associate positively with higher level of TE, and PTE. The result shows to be consistent with (Das and Chanu, 2017; Chanu and Das, 2018, March; and Chanu and Das, 2018). (iii) the level of efficiency and exposures to off-balance sheet activities are positively related under all measures (because the coefficient of determination is positive). Larger the exposure of branch to off-balance sheet activities, larger is the level of efficiency. The present finding fully supports the earlier findings (Chanu and Das, 2016; Das and Chanu, 2017; Chanu and Das, 2018; Chanu and Das, 2018, March). (iv) LQ and efficiency scores have negative relationship (because the coefficient of determination is negative). It means that decrease in the NPA increases the level of efficiency. The result shows to be consistent with (Gulati, 2011); and (v) higher level of efficiency are explained significantly by the lower use of operating expenditure (NIE) (because the coefficient of determination is negative). The present finding supports the earlier findings (Chanu and Das, 2016).

CONCLUSION: SUGGESTIONS AND POLICY IMPLICATIONS

Productive Efficiency analysis of ninety-seven branches of AGVB during the study period from 2010-2011 to 2016-2017 provides us not only the idea of efficient and inefficient branches but also the determinants of level of efficiency of the bank branches operating in different areas.

Based on the empirical findings from the analysis of efficiency scores, a certain policy implication can be drawn. All selected AGVB branches are not fully efficient. The management should review the inefficient branches to achieve their full efficiency levels in coming days. Pure technical inefficiency is as equally responsible as scale inefficiency in some of the branches. This is a due concern for managers of the branches and regulatory bodies. Therefore, regulators are suggested to provide technical support, promote competition, and monitor the performance of the branches periodically. Moreover, the findings also show that larger branches are more efficient. This implies that, branches of AGVB could improve their efficiency level by increasing their size of operation.

Tobit regression results show that asset (size), loan quality (NPA), off-balance sheet activities, and non-interest expenditure are the most influential factors of level of efficiency. So, branch manager can try to attract prospective customers from outside the existing market and also try the innovative idea to reduce the LQ (NPA).

LIMITATION AND FUTURE RESEARCH

The present study is restricted to only productivity approach and to measure it one technique is used. So, future research in this topic can be addressed these limitations.

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RATIONALE OF MICRO FINANCE IN SEMI URBAN ECONOMY**Rashmit Kaur¹, Dr. S. K. Vajpeyee² and Dr. Priyank Mishra³**¹Rajeev Gandhi Govt. P.G. College, Ambikapur²Pt. Sunderlal Sharma University, Bilaspur³Dr. C.V. Raman University, Bilaspur**ABSTRACT**

The contrasting development from 20th to 21st century could be witnessed in various aspects, but the most influential transformation took place in the field of "Human Resources Indicators". Whether it may be health, education or employability, a progressive temperament blended with standard of living which has created wonder of wonders. The innovations in context to financial sector, micro finance, self-help groups have dynamically enhanced human civilization. So as it has largely contributed towards grooming income sector, particularly to the semi-rural regime. The importance of micro finance could be better realized in the current state of developing economy. The exposure of tiny entrepreneurs towards self-employment from a very early age has fruitfully resulted in their adaptation to the macro economic growth. A wide variety of financial assistance has played a pivot role in creating an ecosystem for the earning aspirants at every level. The underlying paper is an effort towards drafting the role of micro finance as a facilitator, providing various services to the earning individuals and groups, for extension of self-employment opportunities. The facts used in the appraisal are drawn from various programs undertaken by NABARD and government authorities in providing optimum financial assistance to people in semi-rural areas. As a service provider, micro finance has varied features which have been helping earning individuals in forming self-help groups, raising funds, generating employment and enhancing production capacity. It won't be an exaggeration that the progress of financial sector largely depends on the progress of micro finance.

Keywords: Employment, micro finance, self-help groups.

INTRODUCTION

The roots of microfinance or micro credit could be traced back to 15th century, in Europe, when Franciscan Francis founded a community oriented pawnshop. Historical events traces back to 1800's, when Lysander Spooner writes about the benefits of small credit to entrepreneurs and small farmers. After this, in 19th century, the European credit union movement was founded by Friedrich Wilhelm Raiffeisen, as an initial micro finance institution to support the marginal farmers in Germany. The financial movement was also accelerated by the contributions of Muhammad Yunus and Al Whittaker in 1970, who actively aimed at building institutions for various opportunities and to act as a risk management tool.(3)

The modern micro financial system got emerged in one of the poorest countries of the world named Bangladesh. Muhammad Yunus, a professor of Economics observed that-

- (a) The free market could not protect his country from the adversities of famine.
- (b) The efforts to fight against poverty, including its aids and subsidies, were not enough in achieving their goals.
- (c) The banking system failed in fulfilling the needs of poor population.

Thereafter, in the village Johva, Yunus decided to extend a personal loan to a group of 42 women to help them start a business, and it worked effectively. These women workers making bamboo stools took advantage of the loan to boost their productivity, before repaying the sum as a whole. The above act established the basic principle of modern micro financing mechanism,

combating poverty through micro credit and particularly serving to women in the developing countries.

The base of modern micro financing could be rewarded as an effort of Muhammad Yunus, who incorporated Grameen Bank in the year 1976. An inevitable contribution was made by a Pakistani social scientist, Akhtar Hameed Khan in the successful implementation of the scheme. After the success of financing women self help group, Yunus received a warm appreciation from the banking system, after which he decided to create his own program, named "Grameen". The program aimed at-

- (a) Providing small loans to poor population, with no financial obligation in return.
- (b) It developed the principle of joint responsibility that involves the liability of optimum utilization of funds, on every member of self help group.
- (c) The program aimed at the providing financial strength to women who have totally been excluded from the financial system

The program attained the status of Grameen Bank in the year 1983 and expanded its branches over 80000 villages. The bank extended credit to millions of beneficiaries, including 97% women in them. During the era of 1980's and 90's, this model got acceptance in the world and got established in the developing countries. A large number of institutions got flourished in India, South America and Europe.

REVIEW OF LITERATURE

The published work on certain aspect of knowledge is termed as review of literature. It is the scholarly work done by the scholars which acts as the base for further research works. It acts as a way for constructing further premises for advance learning. A sound collection of literature motivates individuals towards quality research work. The achievements of subject can be judicially justified by a proper review of existing literature.

The review of literature includes review of books, thesis, research articles, research papers etc. by which different views about the subject can be assembled-

The book entitled "**The Economics of Microfinance**" written by **Beatriz Armendariz and Jonathan Morduch**, revolves around the microfinance revolution which got initiated in Latin America and South Asia in the year 1970. It enabled around 65 million poor people in the world to receive small loans without collateral, build up assets, and buy insurance. This comprehensive survey of microfinance seeks to bridge the gap in the existing literature on microfinance between academic economists and practitioners. Both authors have pursued the subject not only in academia but in the field; Beatriz Armendariz founded a microfinance bank in Chiapas, Mexico, and Jonathan Morduch has done fieldwork in Bangladesh, China, and Indonesia. The authors move beyond the usual theoretical focus in the microfinance literature and draw on new developments in theories of contracts and incentives.

The core idea of extending funds to the poor is included in the work named "**Mainstreaming Microfinance: How Lending to the Poor Began, Grew and Came of Age in Bolivia Paperback**" by Elisabeth Rhyne. The contents focus on how microfinance in Latin America lifted whole populations into the financial mainstream, offers a non-technical, in-depth analysis of the micro lending debate. Some people tout microfinance as the most important tool now available for fighting poverty while still others doubt its contribution to the "truly" poor. This volume offers a reasoned, moderate voice on the virtues and problems of microfinance. Drawing on the success story of Bolivia, Rhyne traces the transformation of NGOs into formal financial institutions, and examines microfinance under the conditions of commercialization and competition that have altered the dynamics of the new industry.

The empowerment of women through SHG is summed up in **"Women At The Center: Grameen Bank Borrowers after One Decade 1st Edition"**. The work was written by **Helen Todd**, in the year 1996. It examines the long-term effects of two decades of loans to poor women in Bangladesh through portraits of the lives of women in two villages who have benefitted from the loans. Details the day-to-day processes of how they generate income from the loans, what they do with their income, and how much control they retain over it, demonstrating that credit alone can fundamentally change poor women's lives.

The renowned authors **Stuart Rutherford and Sukhwinder Arora**, in their work **"The poor and their money"** sites different types of needs of the poor for which they raise funds from local bodies. These needs include life cycle needs, personal emergencies, disasters, investment opportunities and so on. People find creative and collective ways by which funds could be raised. They exchange non cash values, livestock, grains, jewellery and precious metal to satisfy their need for money.

One of the remarkable works about MFI's is done in **"The micro finance revolution: Sustainable finance to the poor"** by **Marguerite S. Robinson**, which concludes about the profitability of microfinance, which could be generated over a long period of time. The sources of micro credit acted as a genuine source of fund to those who needed funds for nominal wants. By the end of 1990, micro finance began to develop as an industry, employing large population as beneficiaries.

The research paper by Sharif Muhammad named **"A Study on the Performance of Microfinance Institutions in India"** is another source of appraisal about MFI's in India.

In a country like India where 70 percent of its population lives in rural area and 60 percent depend on agriculture (according to the World Bank reports), micro-finance can play a vital role in providing financial services to the poor and low income individuals. Micro-finance is regarded as a useful tool for socio-economic up-liftment in a developing country like India. It is expected to play a significant role in poverty alleviation and development. The emphasis of present paper is to study the performance and role of microfinance institutions in the development of India.

The achievements of micro finance system over past two decades are broadly covered in a research article named **"Microfinance: Where are we today and where the research should go in the future?"** the authors, **Juanyi Chen, China, Amber Y Chang, Gary D Bruton**, are scholars of University of Jilin, Hong Kong and Texas. It emphasizes on the fact that there have been substantial efforts to expand the impact of microfinance around the world, especially in emerging economies. This commentary and Special Issue of International Small Business Journal, seeks to better understanding of both the contributions and limitations of microfinance in terms of fostering entrepreneurship and economic development.

The Case Study named **"Research Study about the Role of Microfinance Institutions in the Development of Entrepreneurs"** by scholars, **Sowmyan Jegatheesan, Sakthi Ganesh, and Praveen Kumar S.** has its Focus on entrepreneurs who want to run a business and yet can't afford a piece of equipment and merchandise. A research whereby providing equipment or merchandise to enable the project to run a self funding profitable project. In turn, A share in the project plus getting the full costs of the asset equipment or merchandise including an interest. So, direct seed finance is not needed to be put in a project. Microfinance is the provision that provides access to various financial services such as credit, savings, micro insurance, remittances, leasing to low-income clients including consumers and the self employed, who traditionally lack access to banking and related services.

The adversities of repayment of loan and its vicious circle is elaborated under the head "**Loan Repayment Pressure in the Practice of Microfinance in Bangladesh: An Empirical Study on Grameen Bank, BRAC and ASA**". This is a work by **Mohd Aminul Karim**, who sheds light on the 'loan repayment pressure', which is allegedly exerted by the Micro-Finance Institutions (MFIs) on their borrowers in Bangladesh. A qualitative study was carried out to assess the experiences of the borrowers, who are engaged with Building Resources Across Communities (BRAC), Grameen Bank (GB) and Association for Social Advancement (ASA). The observations and findings from the in-depth interviews highlight the effects of repayment pressure imposed on the borrowers. This pressure pushes the borrowers into a vulnerable economic condition while disharmonising their social and family lives. Thus, this study provides a deeper understanding of repayment issue. Findings of this study can add value to the current literature by providing insights on the forced loan recovery technique and its negative effects.

The details about the progress of micro finance in India are clearly demonstrated by **Dr. Swati Sharma** under the head of "**Growth of microfinance in India: A descriptive study**"

It portrayed Indian economy by its low rate of development, predominance of rural population, overwhelming dependency on horticulture, unfavourable land mass proportion, exceptionally skewed income distribution and wealth beside, high frequency of destitution and joblessness. The last two variables poverty and joblessness posture real difficulties to the development and success of the nation. To conquer this issue, some recently created parts like micro finance are assuming an essential part. Microfinance has been viewed as a capable tool to battle poverty through the arrangement of essential financial services including reserve funds, protection, credit and transfer of funds.

Comparative Study of Microfinance Institutions in India by **Siddhartha Sultaniya, Mahiraj Shaikh, Raghunandan** is an examination to comprehend the working of microfinance, explanations behind the destruction in the execution and its commitment towards monetary advancement. The microfinance organizations have contributed a ton towards the general upliftment of individuals living in provincial zones. The microfinance organizations additionally give assets to poor people (particularly focusing on ladies in the general public) and different other money related and non monetary administrations. The money related execution of the chosen organizations has been broke down dependent on couple of techniques. The issue looked by MFIs has been featured and answers for defeat such issues have been brought out.

A Ph.D thesis by **Priyanka Priyadarshani** (UID No. 13JU11300014) has also been studied with the title "**Impact of microfinance on social, economic and capability well-being of families below poverty line, with special reference to Deoghar district in Jharkhand**"

The subject focuses on the development paradigm, microfinance has evolved as a need-based programme for empowerment and alleviation of poverty to the so far neglected target groups (women, poor, deprived etc.). It has also become one of the most effective interventions for economic empowerment of the poor. In this context, the present study focuses on the impact of microfinance on the social economic and capability well being of people languishing Below Poverty Line (BPL) in the Deoghar district of Jharkhand. Microfinance, in simple terms, means providing financial assistance, in the form of a loan, insurance saving, fund transfer, training to the small entrepreneurs and small businesses, lacking access to banking and related services. Microfinance as (Prahalad, 2005) defines, "a scheme for provisioning small loans to impoverished entrepreneurs in less-developed countries is often cited in the literature as the quintessential example of a business solution to global poverty".

RATIONALE OF THE SUBJECT

The importance of finance could be felt in the smooth functioning of trade and commerce. In the deprived belt of Surguja district, availability of funds is a common challenge to common people. Therefore, microfinance is a boon for the upliftment of economic conditions of tribes in the outskirts. The region suffers from mass illiteracy, poverty and lack of awareness among common people (6). Moreover, limited growth of traditional sources of financial market makes it difficult for the people to undergo entrepreneurial aspects. So, the bodies providing micro credit cater the need of seed capital for small and marginal business units.

The relevance of the subject can be felt in the achievements of beneficiaries of the credit system. Different people from the socially and economically deprived background have achieved excellence in enhancing their living standards. Generation of livelihood, setup of new business units, expansion, modernization, growth of farm and non- farm activities are the contributions made by micro finance credit system.

The elaboration of MFI's largely adds to the empowerment of women as they contribute to the financial as well as social autonomy to the women SHG's. The prosperity of skill development and enhancement of productivity diverts the tribal economy on the track of betterment. The optimum achievements of micro credit can be felt in the expansion of women SHG which in turn acts as a sound ground for rural productivity.

Contemporary Relevance of Micro Finance

In 21st century, micro finance got international recognition, when first micro credit summit took place in Washington in 1997. The outlines of micro financial system were outlined by G8 in the year 2004. These contours believed in the emergence of a new sector in the economic system names as micro credit. The UN named the year 2005 as "international year of micro finance", after which Muhammad Yunus won Noble Peace prize in the year 2006.

The micro finance model in India is being derived from the grameen model of Bangladesh (8). A blend of traditional and innovative methods is being adopted in country that caters to the needs of large deprived population. It aims at resolving financial problems of those who find themselves unable to access the banking services. Apart from the grameen model, the SHG model also actively works in the Indian perspective. It includes an involvement of 5 to 20 members who pool their savings towards lending loans to the members, who employ the funds in employment generation opportunities.

The government of India takes adequate care to develop micro financial institutes which shall counter to the needs of deprived class of society. One among such is NABARD, whose role is indigenous in the wide spread of micro credit. Among self help groups, SEWA is one of the leading women micro financed unit in country. By the end of March 2019, the, micro financial sector in India has a credit of around 200000 crore, dealing with 50 million clients in over 30 states with around 1 lakh employees in the sector.

The products being covered under the services of micro finance institutions are-

- (a) Extension of credit to women for increase in income.
- (b) Loans to home grown entrepreneurs.
- (c) Emergency medical loans.
- (d) House improvement and extension loans.

The provisions of funds are based on the skill and educational background of the beneficiaries. A similar peer group is being appointed for the repayment and recovery of loan (7). These institutions have commenced their services from the rural areas and are now extended up to the urban poor's. In India it covers the areas of micro loans, micro insurance and micro savings. Also the micro financial channels are operated through two major streams-

- (a) SBLP (Self help group bank linkage program) – this system was instituted by NABARD in 1992, to motivate women SHG of nearly 10 to 15 members. They contribute their savings towards offering loans to the members for further generation of income.
- (b) Micro Finance Institutions (MFI) – This is the most frequent setup of financial institutes, which elaborates the funds to the deprived population of country. These organizations are based on the fundamental principle of no financial guarantee and adequate financial support. Over the past era, these organizations have gained maximum acceptability in the world.

RATIONALE OF MICRO FINANCE IN SEMI URBAN SECTORS

In the state of Chhattisgarh, MFI act as an allied wing of NABARD. The linkage of SHG with banking system was a pilot project of NABARD, whose successful implementation helped in deepening the roots of rural credit. They further aim at creating social, economic and technological capital in the state (12). The major players of these institutions in the state are the women SHG's, who belong from the poor background. They demand for small amount of loan which acts as seed capital for their traditional as well as regional occupations.

The development of these organizations also highlights the fact that even poor are able to save money out of their limited income. Also their savings keeps on increasing with an increase in their income. A large part of state's population lies in tribal areas, which deprives of basic resources, so it became the need of hour to link banking system with SHG and MFI (4). The funding for SHG has been done by opening the savings account of such group with banks. By the end of March 2021 the total number of SHG registered are 130083 with total number of members 1920137. These groups have total amount in savings accounts as 24091.38 lakhs. The total number of women SHG in the state is 100058, with the total number of members enrolled as 1416721. These women SHG have their savings account with a total amount of 16542.29 lakhs.

Table showing number of SHG and loan extended by different banks

	Loan By Rrb	Loan By Co-Operative Bank
No. of SHG	4469	2735
Amount of loan issued to SHG	5793.91 Lakh	2512.88 Lakh
No. of women SHG	4469	2726
Amount of loan issued to women SHG	5793.91 Lakh	2507.88 Lakh

Self-Help Group or in-short SHG is now a well-known concept. It is now almost two decade old. It is reported that the SHGs have a role in hastening country's economic development. SHGs have now evolved as a movement (3). Mainly, members of the SHGs are women. Consequently, participation of women in the country's economic development is increasing. They also play an important role in elevating the economic status of their families. This has led boost to the process of women's empowerment Bangladesh Rural Advancement Committee (BRAC), Association for Social Advancement (ASA) and PROSHIKA are the other principal Micro-credit Finance Institutions (MFIs) operating for over two decades and their activities are spread in all the districts of that country. BRAC is the largest NGO of Bangladesh with a total membership of 41.38 lakh. Initially set up in 1972 as a relief organisation, it now addresses the issues of poverty alleviation and empowerment of poor, especially women, in the rural areas of the country (1). This institute also works in the field of literacy, legal education and human rights. BRAC has worked significantly in the fields of education, health, nutrition and other support services. PROSHIKA is also active in the areas of literacy, environment, health and organisation building, while ASA and Grameen Bank are pure MFIs. The micro-finance practices of these institutions revolve around five basic features. Firstly, these institutions

primarily have women as their target group(6). Secondly, they adopt group approach for achieving their targets. The group approach focuses on organising the people into small groups and then introducing them to the facility of micro-financing. The MFIs of Bangladesh place a great deal of importance to group solidarity and cohesiveness. Thirdly, savings are an essential precondition in all these MFIs for availing credit from them. Fourthly, the officials of the Bangladesh MFIs remain present in the weekly meetings of the groups and collect the savings, update the pass books and even disburse the loans, and lastly, the systems and procedures of the MFIs are quite simple and in tune with the requirements and capabilities of their clients.

India has adopted the Bangladesh's model in a modified form. To alleviate the poverty and to empower the women, the micro-finance has emerged as a powerful instrument in the new economy. With availability of micro-finance, self-help groups (SHGs) and credit management groups have also started in India (10). And thus the movement of SHG has spread out in India. In India, banks are the predominant agency for delivery of micro-credit. In 1970, Ilaben Bhat, founder member of 'SEWA' (Self Employed Women's Association) in Ahmadabad, had developed a concept of 'women and micro-finance'. The Annapurna Mahila Mandal' in Maharashtra and 'Working Women's Forum' in Tamilnadu and many National Banks for Agriculture and Rural Development (NABARD)-sponsored groups have followed the path laid down by 'SEWA'. 'SEWA' is a trade union of poor, self-employed women workers. Since 1987 'Mysore Resettlement and Development Agency' (MYRADA) has promoted Credit Management Groups (CMGs). CMGs are similar to self-help groups. The basic features of this concept promoted by MYRADA are: 1] Affinity, 2] Voluntarism, 3] Homogeneity and 4] Membership should be limited to 15-20 persons (5). Aim of the CMG is to bestow social empowerment to women. In 1991-92 NABARD started promoting self-help groups on a large scale. And it was the real take-off point for the 'SHG movement'. In 1993, the Reserve Bank of India also allowed SHGs to open saving accounts in banks. Facility of availing bank services was a major boost to the movement.

In India three different models of linkage of SHGs to the financial institutions have emerged. They are:

- Banks, themselves, form and finance the SHGs.
- SHGs are formed by NGOs and other agencies but financed by banks.
- Banks finance SHGs with NGOs and other agencies as financial intermediaries.

The second model is the most popular model. Almost three-fourths of all the SHGs come under this model. Only 20% of the SHGs are covered under the first and 8% under the third model respectively.

The year 1975 was declared as a 'year for women'. Also, the decade from 1975 to 1985 was declared as a 'decade for women'. During this period, the movement for empowerment of women received a fillip (11). The importance of role of women, which consists 50% of the society, was highlighted in this span of period. It was emphasised that woman should get the same opportunities as that to men. The year 2001 was declared as a 'year of women empowerment'. Efforts were being made in the direction that women should have a role in all walks of life; and special provisions should be made in the budget for activities related to the development of women. Many schemes were planned and started to be executed, at government level, in respect of women education, laws regarding prevention of atrocities on women, their participation in economic and political spheres etc. At this juncture, SHG movement also started and in a way journey towards women empowerment began.

Objectives of SHGS May Be Summed Up As Under

- Basically the SHGs are economic organisation. Small funds are raised for day today needs. The saving groups when transformed to earning groups not only increase the productivity of women but the credibility also.
- Doors are wide open to women to understand and gain knowledge about Banking, Gram Panchayats, Zilla Parishad, Law and Judiciary etc.
- As economical solutions are available, the family structure is maintained.
- SHG is a good way to stop the exploitation of consumers.
- Broadening of view is a major gain. The ascending order of family, group, village, Tahsil, Zilla, Zone, State, Nation, World, makes the vision global.
- Development of self-confidence is achieved.
- A common platform is available for a dialogue and sharing of views.

Discussing particularly about the role of MFI and SHG in the district of Surguja, which is an acute tribal belt of Chhattisgarh state, the district comprise of a large population which has marginal income. The people deprive of basic awareness about banking and financial sector, so, it is obvious to observe that they have limited sources of raising funds (9). Pointing towards SHG, the region has got more number of women SHG registered, as compare to other organisations. They play a vital role in the upliftment of the economic condition of local folks especially women. The growth of MFI's in the district has helped women to raise micro credit and get access to various other aspects of financial market. The social gatherings have removed the barriers of caste, community and also untouchability. Women have formed different community organisations such as school monitoring committee, solid liquid management centres and so on to contribute towards their social responsibility.

CONCLUSION

The above study shall appraise the effects of micro credit finance system on the upliftment of economic condition of common people in Surguja district. It shall also evaluate the reality of credit financial system and its accessibility in the remote belt of tribal region. The study of the subject can be concluded as-

- (1) Micro finance shall add towards improvement in the economic condition of common people. It is more beneficial to those who have limited access to the banking sector.
- (2) As a part of MFI, SHG shall act as a means to inculcate women empowerment in the rural economy.
- (3) The growth of MFI in both urban and rural areas provides adequate financial strength to the beneficiaries. They access the system as per their need and requirements.
- (4) The achievements of MFI at both micro and macro level remains similar to each other, yet they vary in their objectives and way of working.

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READABILITY OF CSR REPORTS OF TOP LISTED COMPANIES IN INDIA**Dr. Vijay Singh¹ and Himani Singla²**¹Assistant Professor and ²Ph.D. Scholar, Department of Commerce, Indira Gandhi University, Meerpur, Haryana**ABSTRACT**

Purpose: *This study aims to assess the readability of Corporate Social Responsibility Reports in India. Disclosure requirements mandates listed companies to provide CSR reports as part of their annual report.*

Methodology: *We used four linguistic approaches to examine the readability of a document MD&A and CSR like (Gunning Fog, Dale-Chall, Flesch Reading Ease, and Flesch-Kincaid measures). Each of the readability indexes was analyzed using an online program, and data was analyzed using descriptive analysis.*

Findings: *The results demonstrate that CSR reports of annual report are difficult to read and can be understood by only post graduate students only. Also, this study concluded that no different readability indicators provide different readability level of the documents.*

Research Implications: *The conclusions of this study can help companies and regulators prepare more legible and understandable CSR Reports, as mandated by SEBI (Securities and Exchange Commission of India).*

Originality: *In three ways, this research study contributes to the field: To begin with, the previous study has not looked into the readability CSR in the context of India. Secondly, no study has looked at the readability of MD&A/CSR reports using different linguistic tools.*

Keywords: *Management Discussion and Analysis, CSR, Readability, Readability Indicators*

1. INTRODUCTION

The readability of CSR (Corporate Social Responsibility) given by companies listed on the Indian Stock market for the year 2021 is evaluated in this study. It is a fact that studies related to the readability of different sections of the annual report has taken a long time to complete. The annual report contains information related to stakeholders in comprehending the company's present financial performance and determining future plans while considering potential hazards (Pava, M.L. and Epstein, 1993; Jayasree and Shette, 2020). In order to fulfil their commitment to act in a socially responsible manner external stakeholders are given CSR reports. As a result of increased scrutiny over CSR performance, demand for CSR increased in the early 2000s, when stakeholders inquired about the details of economic, environmental, and social performance (Nilipour, De Silva and Li, 2020). To improve transparency so that better assessments can be made is one of the main targets of CSR. Other goal of CSR is to promote openness so that the firm's performance can be better assessed. The link of CSR and the overall complexity of a company's financial disclosures is investigated, and it is discovered that the more understandable the annual reports, the more involved the company is in CSR operations (Amar and Belgacem, 2018).

Few recent studies (Jain and Lawrence H. Winner, 2016; Laskar and Maji, 2016; Aggarwal and Singh, 2019) have attempted to address corporate CSR reporting practices but none have looked at the readability of non-financial firms' CSR reports in India. The research gap in the current study to look at the readability of and CSR reports separately and determine the difference of readability results, if employed different readability measures. The study's goals are as follows, in order to address the aforesaid concern:

1. To determine the readability of CSR.
2. To see if there is a difference in outcomes when readability is assessed using different readability methodologies.

The Rest of the Study is as follows

A rapid summary of the literature in this field is being studied in the second section. The methodology used in this research is described in Section 3. Section 4 explains about the results and discussion, while the closing remarks were given in last section.

2. LITERATURE REVIEW

2.1 Theoretical perspective

The term "readability" refers to how simple something is to read (Smeuninx and Clerck, 2016). It assesses the degree of textual complexity. The narratives and disclosures of a corporation must be straightforward and legible to non-sophisticated investors. Numerous academicians in the past have explained the term "readability" in certain different ways. Some call it 'reading comfort.' Researchers have been undertaking the study on the readability of various portions of annual reports of companies for a very long time. It's a notion that's been researched by a lot of researchers in the context of financial reporting, but just a few current studies have been done on it (e.g., (Ernfjord and Gustafsson, 2014; Smeuninx and Clerck, 2016; Adhariani and Toit, 2020; Nilipour, De Silva and Li, 2020). By using the obfuscation hypothesis (Courtis, 1998) the readability of CSR/sustainability reports has generally discovered in the previous research and evidence related to the theory that it is tough for managers to grasp negative news (Nazari, Hrazdil and Mahmoudian, 2017). Furthermore, according to studies Nazari, Hrazdil and Mahmoudian, (2017) there is a relation between sustainability performance and readability. While such research aims to deliver some awareness into the readability of CSR and sustainability reports, no one was aware of how readability improves eventually or how particular factors influence it.

2.2 Readability and Corporate Reports

In 1952, a study was released on the readability of corporate financial reports. The accounting documents, like yearly reports and its readability of various different sections have all been investigated in the past (Li, 2008; Kumar, 2014). Ernfjord and Gustafsson, (2014); Jain and Lawrence H. Winner, (2016); Laskar and Maji, (2016); Aggarwal and Singh, (2019); Adhariani and Toit, (2020) have studied the readability of CSR and sustainability reports.

Various readability measures have been frequently employed in disclosure literature to assess the narrative difficulty and reader comprehension (Nazari, Hrazdil and Mahmoudian, 2017). The length of words and sentences is used in the majority of readability formulas. Flesh Reading Ease (FRE), Flesch-Kincaid Grade Level (FKGL), Gunning Fog (Fog), and Dale-chall are some of the readability indices (D-C). Because it is easier to compute and explain than other methods, FRE is frequently utilized in disclosure literature. (1990, Schroeder & Gibson). The Flesch-Kincaid method is a refined version of the FRE method, and its score reflects the grade level required for a reader to read a text comfortably (Adhariani and Toit, 2020). To ascertain the time period for formal education required to comprehend the topic the Gunning Fog Index is a useful tool. In computational linguistics, there is yet another metric. Li, (2008) investigated the readability of documents using the Fog index, as well as the relationship between document length and financial performance. The study's findings revealed a negative association between a company's profitability and readability. It translates to a smaller profit margin for a company with poor readability. Table I summarizes the various readability indices that were employed in this study.

2.3 Research Work on Corporate Financial Reporting and Readability

Research in the past has demonstrated that corporate reports are difficult to read (Kumar, 2014). Most of the research related to readability has been carried out in developed economies such as the United States and the United Kingdom, where readers are fluent in English and authors are more productive in research (Schroeder and Gibson, 1990; Li, 2008; Qian, 2020). According to research Collins, Davie and Weetmanf, (1993), UK gives more forward-looking disclosure than the US, despite the fact that the US has made a far greater effort in recent years. In developing economies like China, India, Malaysia, and South Africa only a few research have been explored (Mohamad and Rahman, 2006; Meenakshi and Manoj, 2010; Smeuninx and Clerck, 2016; Aggarwal and Singh, 2019) where English reports are presented and difficult to comprehend, this issue may be even more prevalent in these places, necessitating further research. Previous research looked at components of corporate reports such as the chairman or CEO report, risk disclosures, letters to shareholders, and CSR reports, among other things. Regardless of the portion examined, as per (Adhariani and Toit, 2020) text of business reports are difficult to grasp previous studies have demonstrated but not impossible.

Sustainability reporting disclosures are not limit to just knowing the practices followed by the companies, but the role of Board members plays a significant role in more ESG disclosures in developed nations. Nicolo et.al, (2022) have studied the impact of women director on the sustainability reporting in European Nation. They found the improvements in the ESG (environment, social and governance) disclosures due to presence of women director. In the same manner, Cosma et.al, (2022) have checked the persuasion of regulators in the achievements of sustainable development purpose in non-financial reporting. They concluded that more involvement of Board members in non-financial reporting seems to be more associated with strong commitment of sustainable development.

To attract more investors, employ the impression management method when displaying the reports of the company's managers. Managers of healthier firms communicate present performance as well as future plans, whereas managers of ailing enterprises tend to utilize a tone of impression strategy (Caserio, Panaro and Trucco, 2016; Caserio, Trucco and Panaro, 2019). The readability of a company's disclosures is influenced by its tone.

2.4 An Overview of Readability Indices

This study incorporates four readability measures to evaluate the readability of two separate sections of annual reports presented by Non-financial Indian firms, including Dale-Chall (1948), and Flesch (1948), Fog (1952), and Flesch-Kincaid Grade level, among others.

In 1948, Rudolf Flesch created the Flesch index (Flesch, 1948) that calculates a text's readability score by combining length of the sentence and count of syllabus. The more the text will be difficult to understand for the reader the lower the score will be given. While the Flesch-Kincaid Grade Level is only an updated version of the FRE, it demonstrates the importance of grade-level for easy comprehension of a book based on the reading score attained. The proportion of polysyllabic Fog score is determined by words. It represents the complexity of the material in needed grade levels rather than an absolute score. The fourth method utilized in this study is the Dale-chall methodology, which measures unfamiliar words in the text for the reader using an average number of words per phrase. It is difficult to apply the method other readability formulae since it requires the use of more than 30 factors to determine whether or not the words are known (Islam, 2018).

3. METHODOLOGY

3.1 Sampling and Data Collection

The study aims to assess the readability of CSR in India as published in annual reports and standalone reports. The sample size for this study are the top 100 companies listed on the Indian

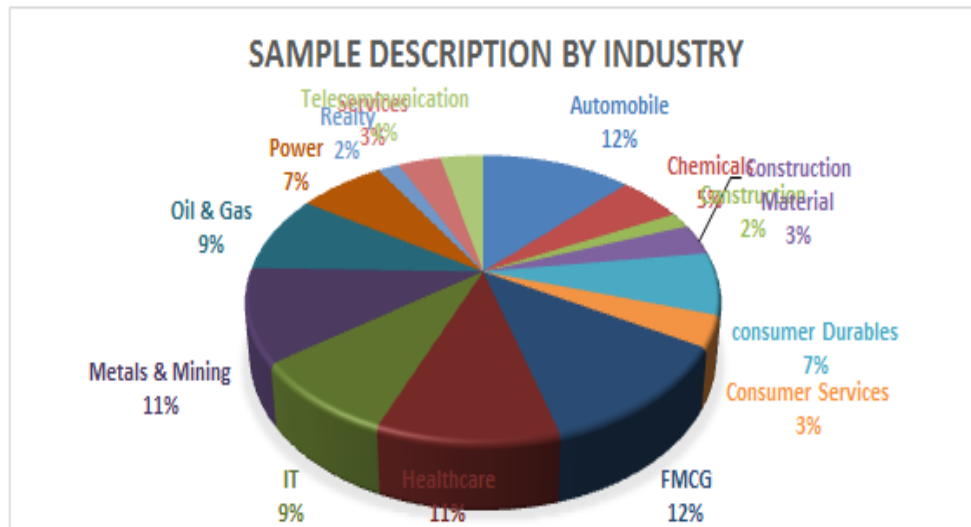
Stock market (NSE) for the fiscal year ending March 31, 2021. The sample is of the most recent time period, illustrating the current state of the readability level of Indian companies' CSR. This work will require a total of 100 observations.

We retrieved the CSR reports from the companies' annual reports for the year under review from their respective websites. The reports were converted to Microsoft Word format so that readability software could be used to further evaluate them. The final sample consists of 57 firm observations because only those firms remain in the final sample that provide both the MD&A and the CSR in word convertible format for the fiscal year ended March 31, 2021. It was the most recent financial year for all companies available at the time the research began.

A total number of firms' observations	is 100
Exclude due to following different financial years	(6)
Exclude due to belonging to the financial service sector	(23)
Exclude due to Non-convertible format	(14)
Final sample size	57 firms' observation

Fig 1 shows the final observed sample comprises of fifteen different industries and 114 observations from 57 firms. Automobile, FMCG, and Healthcare are the most dominating industries in the tested companies, with a share of 12 per cent and 11 per cent, respectively. While Realty, Construction, Consumer Services, and the services sector received the smallest proportion, covering only 2 per cent to 3 per cent. The remaining are gaining a moderate share of the sample size. Forty-three companies got exclusion due to different financial year and incomplete documentation. In addition, financial service sector companies are also exclude as they are not regulated from the companies Act, 2013.

Figure 1 Distribution of sample by Industry



Source: Own Computed Data

3.2 METHOD OF ANALYSIS

The MD&A and CSR documents were analyzed using an online readability indicator tool that allows for a quick, simple, and objective examination of several pages (Adhariani and Toit, 2020; Nilipour, De Silva and Li, 2020). Descriptive statistics are often used to analyses the data. The FRE, Flesh Kincaid, Gunning Fog, and Dale-Chall metrics were used to grade the readability of business technical publications (Adhariani and Toit, 2020). These readability indicators were selected because they are the most commonly used in measuring the readability of company reports and allow for comparison with other research.

Table I Indices of various readability formulas

Reading Ease scale	Flesch Score	Flesch-Kincaid Grade Level	Fog score (Grade)	Dale-Chall
Very difficult	0-30	Post Graduate	13-17	>10.0
Difficult	30-50	Under Graduate	11-12	9.0-9.9
Fairly difficult	50-60	Grades 10-12	10	8.0-8.9
Standard	60-70	Grades 8-9	9	7.0-7.9
Fairly easy	70-80	Grade 7	8	6.0-6.9
Easy to very easy	80-100	Grade 6-5	7	5.0-5.9
Very easy	90-100	Grade 4	6	<4.9

Source: Various Readability Indices combined by Author

Table II Readability Formulas

Readability index	Readability formula
Gunning fog (FOG)	$0.4 * (\text{Words per sentence} + \text{percentage of complex words}) / 0.0588$
Dale-Chall (D-C)	$0.1579 * (\text{percentage of Difficult words}) + 0.0496 * \text{Average Sentence Length in words}$
Flesch Readability Ease (FRE)	$206.835 - (1.015 \times \text{Average Sentence Length}) - (84.6 \times \text{Average number of syllables per word})$
Flesch-Kincaid Grade Level (FKGL)	$(11.8 * \text{syllables per word}) + (0.39 * \text{Words per sentence}) - 15.59$

Source: Table extracted from (Nilipour et al., 2020)

Table I and Table II demonstrates how the readability score is computed using several readability methods. The level of readability is calculated differently for each technique. Each technique's score varies, as greater the FRE score is more simple the text is to understand, yet in fog and Dale-Chall technique the higher the score, the more difficult the book is to understand. Based on the difficulty level the Flesch-Kincaid grade level technique indicates the reader's educational level necessary to read and understand the language.

4. RESULTS AND DISCUSSION

After the readability scores were computed by software, descriptive statistics (mean, maximum, minimum and standard deviation) for each of the readability indices were computed for assessing and comparing the scores of two reports.

Table III is depicting the Reading ease of CSR section of the annual reports. The results are clearly showing that fog and dale-chall method are depicting CSR reports are very difficult, while Flesch readability ease is describing that around 50% of the observations are very difficult in reading and understanding. Flesch Kincaid Grade level depicts, approx. 30% of the observed reports are readable and understandable by graduates and others are only readable by the post-graduate students only. The results of this study are consistent with the earlier studies (Jayasree & Shette, 2020; Mohamad & Rahman, 2006; Nilipour et al., 2020).

Table IV shows that the Realty and Oil & Gas industries have higher readability of CSR using the Flesch Kincaid grade level. While the chemical industry have better readability CSR, according to the Flesch readability ease. According to the Fog score, consumer services has more readable CSR. Dale-Chall assigns the same score to all industries and their reports, indicating that these reports are only understandable by postgraduates but are not unreadable. The aggregate score of each industry for all reports is not satisfactory, indicating that they are difficult to understand. They are only understandable by university graduates but are not unreadable.

Table III Readability level by various readability Measure

Readability level	Readability Indicators			
	FKGL	FRE	FOG	Dale-Chall
Difficult	21	19	0	0
Very Difficult	36	38	57	57

Source: Own computed data

Table IV Mean score of readability Measures by various Industries

Industry	Readability Indicators			
	Fkgl	Fre	Fog	Dale-Chall
Automobile	17.1	28.17	22.41	17
Chemicals	15.15	36.3	20.6	17
Construction	18.73	22.68	23.46	17
Construction Material	20.31	26.2	25.46	17
consumer Durables	15.92	25.76	21.84	17
Consumer Services	17.64	18.66	20.21	17
FMCG	19.39	23.43	24.14	17
Healthcare	16.01	29.59	22.81	17
IT	17.86	25.87	22.98	17
Metals & Mining	15.66	31.3	21.17	17
Oil & Gas	14.88	27.08	20.69	17
Power	16.98	25.82	21.92	17
Realty	24.2	17.81	29.52	17
Services	16.86	33.22	21.84	17
Telecommunication	16.62	30.89	21.19	17
Mean of Mean	17.55	26.85	22.68	17

Source: Own Computed Data

FKGL: Mean from Flesch-Kincaid grade level of CSR **FRE:** Mean from Flesch Readability Ease of CSR

FOG: Fog mean Score of CSR Dale- Chall: mean score of both MD&A and CSR

Table V describes the descriptive statistical results by various readability measures CSR reports. The average of all the reports for each readability measures is almost similar. However, the minimum and maximum score CSR reports from flesch readability ease and flesch kincaid grade level depicts that some of the reports are easy to read and can readable by college graduate student also. But, for the fog and dale-chall method, the readability level is still very difficult and can be read by only a post-graduate student only.

The variability of readability score of different companies is shown by the standard variance. The CSR reports are observed more variation as shown in the table IV. The overall results are indicating the difficult level of the readability of CSR reports and language used in CSR reports are less consistent among listed companies in India.

Table V Descriptive by Readability Measure Types

Descriptive	Readability Indicators			
	Fkgl	Fkre	Fog	Dale-Chall
Mean	16.80	26.85	22.68	17
Minimum/Maximum	22.9	17.81	20.21	17
Maximum	32.19	36.30	29.50	17
Standard Deviation	4.76	5.04	2.36	0

Source: Own Computed Data

5. CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH

This study aims to investigate the readability of the CSR sections of the yearly reports of firms listed on the NSE. The readability of CSR, as well as the required education level to make them readable was also investigated in the study.

The study finds that CSR section of the annual reports of the companies are widely available, but the readability of the CSR are difficult, but not unreadable, as supported by previous literature from both Indian and global studies (Jayasree and Shette, 2020; Nilipour, De Silva and Li, 2020), etc. Furthermore, the results of using any readability instrument indicate nearly identical readability outcomes. Thus, it can be stated from this study that there will be a little variation if any of the readability tools are used to measure readability.

By highlighting the readability of CSR in India, this study contributes to the knowledge gap. Furthermore, using four typical readability indices, this study gives details on the readability of CSR reports. Due to heightened demand from stakeholders following pandemic and continual improvement by regulators in their disclosure rules, it is now a crucial phase for Indian companies to improve the quality of their CSR. The findings advise companies to improve transparency and clarity in CSR reports by giving stakeholders with invaluable piece of information.

This study, like many others, has limitations. Only a small number of companies listed on the NSE was being explored in the study. However, this study computed readability using various readability indices, these indices are only used as estimates for readability measurement. Finally, only two sections of the annual reports of Indian non-financial firms published in annual reports and standalone reports were analyzed in the study. Future studies can take into account the readability of entire annual reports of Indian companies and other channels of information published in newspapers and social media. Another subject for future research could be to expand the research to include company qualities (profitability, size, and age) and see how they affect readability.

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REFLECTIONS ON HABERMAS'S NOTION OF PUBLIC SPHERE AND MASS MEDIA IN CONTEMPORARY DEMOCRACY

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ABSTRACT

A new social structure marked by the development of a new global public sphere helped by the Internet and new multimedia technology has emerged with the advent of globalisation and advancement in modern communication. This platform for public debate and discussion has gradually changed from what Habermas has formulated as an ideal public sphere into a new social structure. In the modern day, mass culture plays a different role from what it did in the past—that of organs of public discourse—serving as means of producing and regulating consensus and advancing capitalist culture. The public sphere is shifting as a result of the evolving communications environment. This essay aims to examine how the introduction of electronic mass media in the public sphere has altered the breadth and dimensions of Habermas's early and later conceptions of the public sphere.

Keywords: Public Sphere, Internet, Globalisation, Mass Culture, Democracy

INTRODUCTION

The idea of public sphere since its introduction in the seventeenth century, has fostered tremendously rich discussions on liberal democracy, civil society, public life, and societal advancements up to the present. In his examinations of contemporary society, Habermas addresses a number of subjects including the concept of social emancipation, the supposed pathologies of society, and the criticism of modernity and capitalist society. These analyses attempt a specific reinterpretation of some of the core economic and political notions, such as commodification, reification, and critique of mass culture based on the traditional background of critical Theory of the Frankfurt School. Habermas's model of the public sphere has also been extensively criticised and scrutinised in an era of growing global economic and political interconnectedness and hence, further investigation and philosophical consideration are necessary.

As a result, the first section of the paper will describe Habermas's conception of the public sphere and how its structural transformation appears in his early writings before pointing out how he raises related issues in the context of its shifting structure in modern society. Further sections deal with the numerous ways in which social movements might be empowered to realise the full emancipatory potential of the public domain after outlining the various criticisms that his theory has prompted. In contemporary era, the notion of the public realm that promotes the most public participation is at stake. Thus, this paper aims to highlight the relevance of Habermas's challenge and its continued significance for discussions of democratic politics, as well as social and cultural life in the modern day (Kellner, 2014, pp. 19-43).

ON THE FOUNDATIONS AND THE IDEAS OF PUBLIC SPHERE

It is quite comprehensible that the theories and ideologies of contemporary philosophers like John Locke, Jean-Jacques Rousseau, and Immanuel Kant have provided a theoretical and intellectual framework for Habermas' understanding of the public sphere. Based on the writings and observations made by various contemporary philosophers before him, Habermas studied the theoretical and intellectual underpinning of the public sphere hypothesis. The concept of "public opinion" served as the focal point for the bourgeois public sphere's activities. The concept of the bourgeois public sphere, which had its basic articulation in the Kantian principle of right, was introduced through public opinion (Nick Crossley, John Michael Roberts, 2004, pp. 89-90).

Habermas claims that the word “opinion” (Nick Crossley, John Michael Roberts, 2004, pp. 89-90) has two distinct meanings. First, opinion which lacks assurance, refer to an unproven judgement or “mere opinion.” Second, opinion in terms of what they stand for in the eyes of others i.e., as a person’s “reputation” (Nick Crossley, John Michael Roberts, 2004, pp. 89-90). However, the term ‘public opinion’ did not merely develop out of opinion. It emerged in the late eighteenth century as a way to describe the “critical reflections of a public to make its own decisions” (Nick Crossley, John Michael Roberts, 2004, p. 90).

JOHN LOCKE’S UNDERSTANDING OF PUBLIC OPINION

The idea of “private opinion” that was emergent in Hobbe’s political doctrine ‘Leviathan’ got improved in one of John Locke’s seminal works ‘The Essay Concerning Human Understanding.’ Locke maintain that one’s behaviour is restricted and, in some ways, controlled by habits, informal beliefs, and other people’s opinions. According to him, opinion is the “informal network of folkways whose indirect social control was more effective than the official censure...” (Habermas, 1989, p. 91). The “Law of Opinion” (Locke, 1975, pp. bk. 2, ch. 28. sec. II) as Locke states are categories of equal standing alongside the state law. He added that “the law of opinion judges’ virtues and vices; virtue, indeed, was measured precisely in terms of public esteem” (Locke, 1975, pp. bk. 2, ch. 28. sec. II). Although the law was not created in a public setting, each person has the power to influence others. The “consent of private persons who lack sufficient authority to enact a law” served as its foundation (Locke, 1975, pp. bk. 2, ch. 28. sec. II). In other words, it acts in certain ways as a social check on residents’ behaviour. Locke contends that the “law of private censure” is not a rule that is required by the constitution. It was only a “implicit norm” that existed in each citizen’s mind so that they may all act morally and in line with what was thought to be the accepted practise (Amosin, 2017, p. 47)

ROUSSEAU’S GENERAL WILL

The phrase “public opinion” was used by Jean-Jacques Rousseau in his well-known “Discourse on the Arts and Sciences.” By fusing the definition of opinion with the qualities of publique,(Riley, 2001, p. 72). he accomplishes this. A world where social activities were basically political in character, like in the ancient polis, was how Rousseau described a society "committed to public affairs" (Riley, 2001, p. 72). He desired a system in which the people were sovereign and the government carried out the will of the people. Later on, this "will" will be referred to as the "General Will." His idea of the "Common Will" has drawbacks because of its implications, i.e., that citizens must give up their possessions and rights before they may join in and participate in the general will of the people. "Public opinion is the type of legislation whose censor is the minister," continued Rousseau (Rousseau, 1987, p. 95). What the “General Will” is what is “manipulative exercise of power” (Habermas, 1989, p. 98). The “General Will” is hence non-welfarist and non-communal (Levine, 1993, p. 34).

In addition to the drawbacks of Rousseau's "General Will," Habermas created a crucial notion for the conception of the public sphere: a public sphere must include "public opinion" since it is a potent force. However, in order for them to continue to exist as autonomous individuals distinct from the state itself, citizens who come together to collectively create this "public opinion" must still be in possession of their rights and their property. In other words, neither the state nor any other citizen should be able to readily persuade the populace. Therefore, the "public opinion" should not be established on will but rather via a thoughtful conversation and discussion (Amosin, 2017, p. 49).

KANTIAN PRINCIPLE OF PUBLICITY

Kant’s development of the principle of publicity in his philosophy of right and history marks the completely established theoretical form of the bourgeois public sphere. (Habermas, 1989, p. 102). According to Kant’s elaboration of publicity, morality and politics may be reconciled via the use of publicity (Habermas, 1989, pp. 102-117). Kant believed that the goal of public

opinion was to morally justify political behaviour. This is true because individuals are drawn to public opinion, and people want to be free from compulsion and manipulation, which can sometimes lead to unethical behaviour (Goode, 2005, pp. 12 - 13).

In his essay 'What is Enlightenment?', Kant contended that enlightenment is man's capacity to break free from "his self-incurred tutelage." In other words, it is a "man's incapacity to apply his knowledge without guidance from another is another definition of mentorship" (Kant, 1990, p. 83). Liberation from this self-imposed immaturity meant illumination, which would eventually inspire citizens to consider their personal lives. Kant's idea of publicity seeks to create a truly 'free' social order. Despite their freedom, citizens must recognise that prioritising their own interests means also considering the needs of the community and all of mankind. In addition to uniting the political and moral realms, which is helpful for society, Kant's principle also enhanced the theoretical and philosophical foundation of Habermas's thesis (Amosin, 2017, p. 52).

The writings of Locke, Rousseau, and Kant put the public sphere thesis on a firm theoretical and philosophical foundation. While Kant related morality and politics by employing public opinion as a justification for the public's use of citizens' reason, Hobbes, Locke, and Rousseau deepened the concept of opinion and its value. Having lay out the fundamental theoretical and philosophical groundwork for the theory, the next section discusses the emergence and the disintegration of Habermasian model of bourgeois public sphere and also examines the direct effect of the advent of early capitalism in Europe's feudal societies (Amosin, 2017, p. 52).

HABERMASIAN MODEL OF PUBLIC SPHERE

In his well-known essay "The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society," Habermas first presents the idea of the public sphere (Öffentlichkeit in German). The area between the state and society in contemporary cultures is known as the "public sphere" (Delanty, 2007). However, the German word Öffentlichkeit covers a multitude of connotations, in contrast to its straight English translation, which only conveys a geographical sense of the public. According to Habermas (1989), the public sphere (Öffentlichkeit) is a forum for private discussion of public issues, acting as a bridge between society and the government. By creating a critical consensus that results in a coherent public opinion and holding the government responsible to its citizens, the public sphere has the potential to have an impact on power: "the public sphere is...what one might call the factory of politics-its site of production...the space in which politics is first made possible at all and communicable" (Benhabib, 1992). "The requirement of rhetorical justification of democratic politics" is central to the public sphere (Lunt, 1994, p. 16).

Only in the seventeenth century did the concepts of the public sphere and public opinion first come into existence. They get their particular significance from a unique historical circumstance. At that point, the distinction between "opinion," "opinion publique," and "public opinion" was established (Jürgen Habermas, Sara Lennox, Frank Lennox, 1974, pp. 49-50).

While typically speaking about civil society, it also refers to a broader category of the public and the political structures connected to it (Delanty, 2007). Thus, in contemporary cultures, the public sphere may be viewed as a stage where politics are performed orally and a realm of social life in which public opinion can be formed (Fraser, 1990).

The aspirations of a rational public sphere that emerged in the post-Renaissance era of the Age of Reason are transformed and essentially destroyed over the eighteenth and nineteenth centuries as described by Habermas in his theoretical journey. Habermas concentrates on the beginnings and ultimate evolution of what he refers to as the bourgeois political life from the middle of the eighteenth century to the middle of the twentieth century, particularly the structural alteration of its normative principles. And for Habermas, the main goal of the entire

endeavour is to determine whether there are any elements of truth in these ideological aspects of the bourgeois ideal of a rational public and whose promise for emancipation may be harnessed to inspire hope for a more prosperous democracy (Johnson, 2006).

The bourgeois public's primary purpose became the preservation and protection of its members' private individuality, making the principle of "privacy" the norm that governed how the public interacted. The rationalist movement and the emergence of the practise of give and take of reasoned discourse in the history of modern Europe paved the way for this to happen (Johnson, 2006). A social space known as the public sphere formed, standing apart from the court society and the absolute state on each side. This was the public space, which developed in newly created urban settings like salons, coffee shops, public parks, theatres, lecture halls, an independent press, public libraries, and other places where public discourse took place away from official institutions (Delanty, 2007). Even while the informal institutions that evolved into the settings for critical discourse varied in size and composition, they had several characteristics. First, the only deciding factor in the conversation would be the speaker's or the participants' individual standing. The general populace ignored status and showed little interest in any appeals to power and authority. Habermas acknowledges that, in reality—in the coffee shops, salons, and societies—this expectation was not completely met. Second, nothing was to be shielded from critique, which led to the problematization of hitherto unproblematic regions (Johnson, 2006). Last but not least, these crucial social places had to be inclusive, allowing everyone and everyone to take part.

The normative power of the idea of critical deliberation actualized through the public spheres, however, started to wane with the advent of Industrialization and the corresponding sociological changes that characterised the contemporary capitalist societies, allowing a reintegration of public and private domains. This phenomenon, which Habermas refers to as "the structural transformation," emerged as a result of the fall of Enlightenment culture and the appropriation and alteration of the public sphere by capitalism (Delanty, 2007). The Industrial Revolution's economic and structural changes caused the bourgeois public sphere to eventually deteriorate, paving the way for what Habermas refers to as the modern mass society of the social welfare state, where leisure has taken the place of the critical debates channelled through rationality (Habermas, 1989).

In a society that has adopted new kinds of social interactions, particularly on the basis of class divides and the unequal distribution of wealth that led to economic polarity, the idea of private autonomy of self-sufficient individuals looked to be untenable. Additionally, the post-liberal state took over the delivery of services that had previously been left in the hands of private parties (Habermas, 1989). The widespread commercialization of the press, which was initially a potent facilitator of public sphere discussions, was another significant development in this respect. Suddenly, the media shifted from being a source of accurate political information for the general public to becoming more of an advertising platform and a weapon of political forces. The public sphere declined with the emergence of commercial newspapers, which coincided with the development of bourgeois society and the entry of the market into civil society (Delanty, 2007).

Mass Culture and Public Sphere: A Critical Perspective

The great diversity of technical breakthroughs of the twenty-first century are present. The term "digital natives" refers to those who were born in this century, whereas the term "digital immigrants" refers to people who had to adjust to this environment (Prensky, 2001, p. 5). The structure of the society has undergone a significant shift as a result of these advances, but the people have also been impacted. Despite these advancements, it is clear that technology has acted as a "double-edged sword" that has the potential to both advance and advance civilization while also having the potential to destroy it (Amosin, 2017, p. 98).

Critics of Jürgen Habermas rejected his theory as being unimportant in the twenty-first century. The accusations were not entirely without merit, though, as Habermas himself expressed pessimism about the public sphere in his book *The Structural Transformation of the Public Sphere* due to the socio-political changes that were detrimental to its genuine existence in the nineteenth century and referred to this decline as the "refeudalization" of the public sphere. Many of his successors, however, believe that new advancements in electronic mass media might once again encourage rational, critical thinking and discussion among a larger population (Amosin, 2017, p. 98).

According to Karen Sanders, people use the Internet as a useful forum in this day and age to criticise injustices and organise various forms of protest against them (Sanders, 2009, p. 159). The conventional conception of the public sphere has, in fact, changed throughout time as a result of technological improvements (Sanders, 2009, p. 159). One might assert that the public sphere is not simply restricted to "face-to-face interaction" and "one-to-one encounters" due to changes in the media plane (Nick Crossley, John Michael Roberts, 2004, pp. 131-139). Anyone and anyone may quickly access information. Due to their rapid access to the most recent information and social concerns, even the socially excluded groups and individuals are now engaged in the present socio-political challenges. Ananda Mitra highlights the advantages that "with the growth of the internet, many marginal groups are generating a presence in cyberspace" in her study on the disadvantaged women. The phenomena known as the presence can be explained by the fact that the Internet is giving the voiceless a special platform to speak out in public (Mitra, 2006, p. 492).

Peter Dahlgren stated that "other historical situations and other potentialities are infused with the public sphere in the current situation" (Peter Delgren, Collin Sparks, 1993, p. 2). The idealistic idea of a public sphere made up of people conversing face-to-face or via small-circulation print media, he said, is not very useful. We cannot go back in time since we are living in the era of mass communication and electronic media; we can only go ahead (Peter Delgren, Collin Sparks, 1993, p. 8). The conventional conception of the public sphere as a setting for "face-to-face interaction" and "one-to-one communication" has changed, allowing for the existence of the public sphere on various platforms (Nick Crossley, John Michael Roberts, 2004, pp. 131-139). Therefore, the public sphere can likewise exist in online. However, not every cyberspace that exists on the Internet may exhibit the democratic features that the public sphere needs in order to truly exist. This perspective accurately depicts how many people feel about the possibilities of the mainstream media. Both the optimists and pessimists base their arguments on opposing and disparate interpretations of modernity (Seidman, 1990): One might examine the media as a component of either the millennial, secular myth of progress or the apocalyptic narrative of doom and fall. According to the gloomy outlook of the Frankfurt School's critical theorists, reason is lost when mass culture takes over the public's awareness and only offers a consumerist culture to satiate false, commodified needs. Some claim that there is still a culture of critical discourse, both in academia and as a subset that endures in public institutions and the media (Gouldner, 1976).

The practise of democracy, according to Lazarsfeld and Merton (1948), is undermined by the media's narcotizing effect on its audience: "Modern media may urge citizens to know more, even to be more opinionated, but to do less about public affairs" (Tuchman, 1981, p. 604). Similar to this, Habermas asserts in his commentary on media discussions that "critical dialogue organised in this fashion undoubtedly fulfils crucial social-psychological tasks, notably that of a tranquillizing alternative for action" (Habermas, 1989, p. 164). According to Habermas (1989), the public sphere is merely a promise at this point. Party politics and media manipulation have caused the public sphere to become "refeudalized," where representation and appearances take precedence over reasoned argument (Holub, 1991, p. 6) when a convincing authority turns a

rational, critical public into a mass that is easily persuaded. Among other things, class bias in admissions standards, the growth of an interventionist state, new methods of opinion manipulation, and the disappearance of institutional gathering spaces have all damaged the public sphere. This "refeudalization of the public domain" "turns politics into a controlled performance in which leaders and parties constantly seek the acclamatory acquiescence of a depoliticized people" (Thompson, 1991, p. 113).

Future Scopes and Extension of Public Sphere: A Habermasian Approach

Habermas was largely inspired by the Frankfurt School's critique of modernity's cultural aspects as well as Anna Arendt's gloomy theory of modernity (what she refers to as the "rise of the social" and the prioritising of "the economic" brought about by capitalism). According to Habermas, modernity is an "unfinished project," and the main goal of the moderns is to establish an independent realm of political thinking. Thus, even if conditions for the public sphere in late capitalist nations were generally not favourable, Habermas believes that finding an immanent tendency - one that would withstand all the anomalies that present a barrier on the way - is the true issue (Johnson, 2006). By altering, personalising, and adapting it to the reality of modern societies, reformative programmes should serve to save and re-establish the public sphere principle.

Habermas (1989b) suggests that the refeudalization process in the public realm is insufficient by leaving the door open for reasonable discussion. He proposes a model of undistorted rational communication that is crucial for the potentially emancipatory function he gives to public discourse in a democratic society based on a universal pragmatics whose rules identify the conditions which make utterances feasible. Therefore, even if the bourgeois public sphere collapsed because it was never able to meet the institutional requirements for free speech, it is still possible that language itself will elude institutional control (Lunt, 1994).

Cyberspace proponents anticipate that online discussion will boost political engagement and expand the possibilities for democracy. They contend that the democratising effects of the internet and related technologies will prevent the purported erosion of the public sphere that has been bemoaned by academics, politicians, and various segments of the public. However, critics warn that such technologies may not always ensure a resurrected public sphere as they are not always accessible and can cause fragmented, pointless, and heated conversation, or "flaming" (Papacharissi, 2002). The concept of the public sphere is inextricably linked to the functioning of the current communication channels, and it might be argued that this is especially true of the dominating forms of communication. (Oblak, 2002). Transnational public spheres that allow for widespread engagement across national boundaries require a communication network as a prerequisite. The technologies of the networked society differ substantially in terms of structure, speed, and scope rather than just expanding earlier communication channels.

Digital technologies provide more tools, but they are unable to change the political and economic system that has existed for millennia on its own (Papacharissi, 2002). It is important to appreciate the complex problems that are implicated in the task of restructuring the public sphere in an internationally anarchic environment. The internet may actually enhance the public sphere, but it does so in an unprecedented way that is not comparable to our past experiences of public discourse. Perhaps the internet will not become the new public sphere, but something radically different. may enhance democracy and dialogue, but not in a way that we would expect it to, or in a way that we have experienced in the past (Papacharissi, 2002)(.

CONCLUSION

In the past, mass media was second in importance to physical instruments when it came to worldwide exchanges. However, the communication was very sluggish, one-sided, and restricted. Anyone from anywhere may log on to the system at any moment and continue

communicating with the global community thanks to the internet. Currently, a variety of technologies are widely utilised, including Facebook, Twitter, and blogging, which are the hot topics in international civil society.

To operate in the interests of the global civil society, the new public sphere, nevertheless, needs to follow certain legal, social, political, and ethical criteria. Therefore, the new public space or virtual platform for the global citizenship presents both opportunities and risks. In order for international organisations and individual states to effectively create their ePolicies and policies for international affairs, both good and negative elements must be regularly highlighted. This will allow the new public sphere to serve as an opportunity.

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RESEARCH METHODS IN INDIAN HISTORY: A MODERN PERSPECTIVE

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ABSTRACT

The term historical method refers to the set of techniques and guidelines that historians use to research and write histories of the past. Secondary sources, primary sources, and physical evidence, such as those derived from archaeology, may be drawn upon, and the historian's skill lies in identifying these sources, assessing their relative authority, and combining their testimony appropriately to construct an accurate and reliable picture of events and past environments. In the field of Indian history, the question of the nature and possibility of a sound historical method is raised within the subfield of epistemology. The study of the historical method and the different ways of writing history is known as historiography. Historical research, or historiography, "attempts systematically to recover the complex nuances, people, meanings, events, and even ideas of the past that have influenced and shaped the present."

Keywords: History, Historiography, Methodology, Indian History, Research, Data, source, Criticism

SELECTION OF THE SUBJECT AND PROBLEMS

Essential Characteristics of the Research Topic

1. The research topic must be clear in its aspects: It means that the topic that the researcher chooses must be clearly defined, geographically and chronologically.
2. The research topic should have enough sources available: Generally, most of the research supervisors suggested topics that have many sources. Such themes provide a broader scope for interpretations of the source material.
3. It must be a continuity of previous work: In general, most historians want to have continuity in research studies, so that they can make use of previous work on the subject.
4. Preference for an interdisciplinary attitude: At present, topics that require interdisciplinary studies are privileged, particularly those related to anthropological history, economic history, and social history.
5. Contribution to regional factors, sources and histories: This is because these researchers can bring to light unknown facts and factors with many new interpretations.
6. Taking into account social needs, economic prospects and political integration: History is no longer seen as an exercise simply in knowing what was in the past. Such an antiquarian perspective is undergoing a change.

THE RESEARCH PROCESS

1. Research Related to Data Collection: Data collection is the simplest type of investigation where a student collects data and adds some new facts and figures in their research paper. It also strives to provide new ideas or information.

2. Research Related to Data interpretation: After data collection, a researcher engages in a higher stage of research. He also uses all known sources to draw his conclusion. The researcher explains, interprets and assesses all the material collected or available in his own way with a critical capacity in order to reach definitive conclusions.

3. Research Related To Knowledge Synthesis: The two categories of research work discussed above are quite simple, but the third one is a bit difficult. Actually, this category of research puts

a scholar in the category of a historian who is required to develop certain laws and principles with the help of available data.

4. The Values Orientation Method: A Tool to Help Understand Cultural Differences. To work with people from other cultures, it is important to understand their "world view". The Value Orientation Method (VOM) provides a way to understand fundamental cultural differences

5. CONTEXTUALIZATION

The past is strange and familiar at the same time. To interpret historical events, one has to apply a wide range of general knowledge about how social variables work and interrelate them to interpret the specific events under consideration.

6. ARGUMENTATION

Because historical accounts are based on various types of sources that often contain partial and contradictory information and because historical interpretations are not definitive, claims and claims about the past must be supported by rational arguments which, in turn, must be based on well-considered arguments. evidence.

7. DOCUMENTATION

In preparing the Text, attention should be paid to the documentation of the evidence. Documentation is a technical procedure by which the sources consulted are listed and the cited authorities are duly acknowledged.

8. Action Research is a research philosophy and methodology generally applied in the social sciences. It seeks transformative change through the simultaneous process of action and research, which are linked by critical reflection.

9. Discourse Analysis (DA), or discourse studies, is an approach to the analysis of the use of written, vocal, or signed language, or any significant semiotic event.

10. ETHNOGRAPHY

explores cultural phenomena from the point of view of the subject of study. Ethnography is also a type of social research that involves examining the behavior of participants in a given social situation and understanding the group members' own interpretation of said behavior.

11. GROUNDED THEORY

it is a systematic methodology that has been applied largely to qualitative research by social scientists. The methodology involves the construction of hypotheses and theories through the collection and analysis of data. Grounded theory involves the application of inductive reasoning. The methodology contrasts with the hypothetical-deductive model used in traditional scientific research.

Qualities of a Good History Researcher

To be a good scholar or researcher, a person must have some qualities that are necessary for a good historian. The investigator who possesses the following qualities of head and heart can be named a good investigator.

1. Mental Perspective: A good researcher can undertake research work more efficiently than anyone else.

2. Critical Perspective: The other quality of a true and good researcher is that he must have a critical perspective in order to see and interpret the data collected with a critical point of view.

3. Capacity for interpretation: Without a doubt, data collection is a very significant aspect of the investigation, but it does not speak for itself. It depends on the skill and ability of the researcher how he interprets the data collected and the available sources.

4. Work Capacity: Research work is not an easy task. It requires a lot of manpower to do it.

5. Knowledge of the subject: It is necessary for the researcher to have a complete knowledge of the subject. He is required to collect the source material, which is not an easy task.

6. Gathering Material: Gathering material is also a significant quality of a good investigator. Primary and secondary sources may be available on past events and the public and private sectors should also be searched to find the source material.

7. Objective vision: Another quality of a good investigator is that he must have an objective vision. As subjectivity is in the conscience of each person, it is very difficult to have an objective look at the investigation.

8. Balanced vision: a good investigator must have a balanced vision of each event.

9. Qualitative Work: The whole approach of the good researcher in history must be new and convincing as well as rational. You should put an emphasis on quality rather than quantity. You must remember that the length of time is not as important as the quality of the work.

10. Flexibility in the Investigation Plan: A good investigator is required to face all these turbulences with courage. Actually, you need to plan your work in such a way that in case of any problem it can be changed. Therefore, flexibility in planning is essential.

12. Common Sense and the Audacity to Face Criticism: An essential quality of a good researcher is common sense. In your absence, you cannot work efficiently. It also includes power of judgment and mental acuity.

13. Knowledge of Research Methodology: There is a big difference between the history of the past and the history of the present. Research in history has become very sophisticated. Now, today's scholar does not need to collect only facts and figures. He had to critically observe, analyze and evaluate the events and happenings to find an exact conclusion. Therefore, a good knowledge of research methodology is very essential for a successful researcher. Knowledge of the preparation of notes and synopses as well as bibliography is also essential for a good researcher. For this, you will have to resort to various methods such as data collection, library use, questionnaire method, interview method, survey method, etc. It will add to the quality of your research paper. The methodology saves time and energy and ensures quality. A researcher is likely to waste his time and energy without knowing the research methodology.

MAIN SOURCES OF DATA COLLECTION FOR HISTORICAL WRITINGS

1. Contemporary Records: A letter of appointment, a battlefield order, an address from the foreign office to the ambassador, etc., are some significant documents for a researcher. These documents have no doubt about their authenticity and there is no possibility of error.

2. Confidential Reports: Confidential Reports are not intended for the general masses.

3. Public reports: Public reports are not as important and reliable as confidential reports. Public Reports are usually divided into three parts and each of them has a different degree of reliability.

4. The Reliability of a newspaper or dispatch depends on the source from which it originated.

5. Memoirs and Autobiographies are also a source of material for a researcher.

6. The Questionnaire Method: It is the most significant method of data collection. In this method, the researcher prepares certain questions related to the topic of the project or thesis to obtain information and opinion on a particular topic. Questionnaires provide the researcher with a background of information.

7. Interview system: Apart from the questionnaire method, researchers also use the interview system to draw some definite conclusions by interviewing contemporary people or eyewitnesses. Through this system, you have the desire to add something new to the existing knowledge on the subject.

DIFFERENT FORMS OF SOURCE CRITICISM

1. Internal Criticism and External Criticism. The specific object of the Inner Critique is to determine its acceptability for historical writing; while the specific object of Outer Criticism is to restore a document to its arch type.

2. There are Three Fundamental Approaches to Textual Criticism: eclecticism, stemmatics, and copy-editing. Techniques from the biological discipline of cladistics are now also being used to determine relationships between manuscripts. The phrase lower criticism is used to describe the contrast between textual criticism and "higher" criticism, which is the effort to establish the authorship, date, and place of composition of the original text.

ECLECTICISM

Eclecticism refers to the practice of consulting a wide variety of witnesses to a particular original. The practice is based on the principle that the more independent the transmission histories, the less likely they are to reproduce the same errors. What one omits, the others can retain; what one adds, the others are unlikely to add. Eclecticism allows inferences to be made regarding the original text, based on the evidence of contrasts between witnesses.

4. Structuralism: Structuralism has emerged from linguistics and finds in literature an object that has in turn emerged from language. We can then understand why structuralism would want to found a science of literature or, to be more exact, a linguistics of discourse, whose object is the 'language' of literary forms, grasped at many levels.

5. Study of Oral Tradition: History: Oral tradition as a field of study has been very important in the modern perspective.

6. Narrative Research Or Narrative Analysis emerged as a discipline within the broader field of qualitative research in the early 20th century, as there is evidence that this method was used in psychology and sociology. Narrative inquiry uses field texts, such as histories, autobiographies, diaries, field notes, letters, conversations, interviews, family histories, photographs (and other artifacts), and life experiences, as units of analysis to investigate and understand how that people create meaning in their lives as narratives.

OBSTACLES TO RESEARCH IN HISTORY

1. NATIONALIST BIAS

Thomson writes that "the most widespread and insidious of all forms of bias in the historiography of modern times is that induced by nationalism and the passions of patriotism."

2. GEOGRAPHIC AREA BIAS

European historians tend to see world events very differently from Asian ones. For most European historians, the "world" is Europe; for most historians, the center of the world is their own country.

3. BIAS IN TERMS OF RELIGIOUS BELIEFS

The religious pattern of thought should not appear as a challenge to the objective view of history.

4. CULTURE BIAS.

Cultural bias should not manifest itself in an incurable superiority complex and is expressed in self-deceptive generalizations. The bias leads to the falsification of historical facts. Bias, though mostly unconscious, leads to intellectual distortion and falsification of facts.

5. THE DOUBTFUL DOCUMENT

While a forged document is completely false and dishonest, history students may have to deal with another class of documents that are composite in nature, coming from multiple hands or sources.

CONCLUSION

As the historical methodology is also scientific, it has acquired a system, a plan and a procedure, the neglect of which would lead to numerous errors. History is no longer a record of mere political events of some kings and queens and courts and wars, but the growth of the mind of man in almost all walks of life. The sheer enormity of the problems requires an intelligent selection of the data through an infallible method, and thus introduces even greater sophistication into the art and science of writing history. The research methodology in the Indian historical field must overcome all obstacles and must follow the modern research perspectives. Indian historical research is always enriched and praised throughout the world for its abundant resources and the various facets of its cultural ethos. The research methodology in the history of India is becoming a model for the rest of the world to follow.

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REVIEW OF RESEARCH STUDIES ON EDUCATION DISPARITIES

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ABSTRACT

There is an urgent need for recommendations for sound, comprehensive, and impartial education systems (Global Education Monitoring report 2019). The unequal dispersal of resources and facilities to attain quality education to socially backward people refers to the disparity in education. The deficiency of access to quality education with equivalent opportunities will upsurge the social and economic disparities. In the present paper, the studies related to educational inequality are reviewed. It also provides the various tools and techniques used to measure these disparities.

Keywords: Disparity, Education, Economic, Mobility, Quality, Inequality

INTRODUCTION

Educational inequality refers to the uneven distribution of educational resources to socially excluded populations, such as school funds, skilled and experienced staff, books, and technology. These groups have a history of being marginalized and oppressed. Individuals from these underprivileged groups were frequently refused admission to institutions with sufficient resources. It causes significant disparities in these persons' educational performance or efficiency, stifling their social and economic mobility. Regional inequality, inequality by sex, social strata, parental income, parent employment, and many more forms of educational disparity exist. However, women's education and enrollment have increased over the period. In the 19th and 20th centuries in India, the situation of women's education, Gender and Caste (Srivastava A. 2015) is described. During this period, the agents of the colonial government and social workers started working and focusing on these issues. But these efforts have an upper-class bias and were accustomed and restricted by customs and concerns that highlight Brahmanical patriarchy.

Some believe there is a significant relationship between quality education and the growth of an economy (Kotaskova K.S. et al., 2018). The OXFAM India 2020 report shows the extent of inequality, i.e., only 1% of people in the entire population hold four times the wealth of 953 million people. Lack of access to quality education with equal opportunities will increase social and economic disparities. According to the GEM (Global Education Monitoring) report (2019), there is an urgent need for recommendations for sound, comprehensive, and impartial education systems. Other research found that gender disparities persist across school grades, especially in low-income families, while learning differences and children's progress through primary school are influenced by wealth (Alcott B. et al., 2017). However, there is also a strong relationship between education development and health; in certain situations, political involvement in the democratic process and disparities in the former can lead to unwanted gaps and gradients in other aspects.

Hence, removing academic distinction by ensuring inclusive and fair quality education and promoting lifelong learning opportunities for all remains the fourth goal in the SDGs adopted in 2015 by the United Nations Member States. The SDGs have set 10 targets for quality education by 2030 worldwide. The present paper describes the review and studies related to educational disparities.

LITERATURE REVIEW

Gender disparities have been measured using the independent chi-square test and the t-test (Farrell T. M. et al., 2020) with the utilization of cross-sectional facts to analyze "Health and Aging in Africa: A Longitudinal Study of an IN-DEPTH Community in South Africa (HAALSI)". It stated that huge gender disparities exist in rural areas of South Africa. The main reasons for differences are low attendance or enrolment of women in schools and the patriarchal attitude of people. The gender disparities among mid-aged and aged adults stated that education contributed to gender equality in the rural areas of South Africa. The other research measured the differences in literacy among the diverse location, regions, sex, and castes using secondary data gathered from Indian Census (Patil D.R. et al., 2017). The Education Development Index was constructed in the study using factor analysis for the six literacy variables. It found that the S.T. categories lock the considerable variations in literacy rate compared to another category. Kerala state was leading higher rank in principal component and composite variable, expecting growth from 2001 to 2011. In Bihar state, the literacy rate was meagre due to social problems that significantly affected the education schemes.

Further, the proficiencies in subjects and the regional languages, English and mathematics of children at the primary level in rural areas of India were analyzed (Panigrahi S.C., 2016). The competence of the selected 15 variables from the ASER 2014 of class 1st to 12th has been measured by applying Principal component analysis. For measuring sample sufficiency, the KMO (Kaiser-Meyer-Olkin) was used. Bartlett's test showed a high correlation between the variables, and it is appropriate to use PCA. The study showed that the southern and northeastern states indicate remarkable academic performance compared to other states. The situation of primary education in schools located in India's rural regions related to students' attainment was computed (Panigarhi S. et al., 2016). The Principal Component Analysis has been employed on 14 related variables to construct four components to quantify students' academic ability enrolled in the I – VIII standard. The standardized regression factor scores of four elements, derived from PCA, evaluate various states' basic education status. It found that students enrolled at basic levels achieved weak performance in rural regions in some states. On the other side, States such as "Andhra Pradesh, Uttarakhand, Uttar Pradesh, Uttarakhand, Chhattisgarh, Assam, Haryana, Goa, Jharkhand, Daman and Diu, Arunachal Pradesh, Nagaland, Tamil Nadu, Meghalaya, Orissa, Karnataka, and Manipur" have achieved better education. It is due to their standard score of factor remaining 0 and above. The educational quality in rural regions of India (Chaudhary R.D. et al., 2013) using PCA, the Learning Achievement Index, has been constructed for 2010. ASER data were used in the study. The study also analyzed the effect of government expenditure on students' Learning Achievements Index with the help of Ordinary Least Square Regression Analysis. The results revealed that more enormous incentives have to be provided to the teachers. The study found a poor learning outcome and suggested reaching a large number of villages and training. The gender dissimilarity in the probability of finishing school education across various areas of India (Hussain Z., 2010) with Sopher's difference indicator for the data collected from the NSSO units from the 61st round has been computed as the local disparities. The states of India are divided into three groups – northern states, eastern states and southern states. The authors tested the hypothesis to analyze the disparities. They found that gender inequalities in school finishing growth are more remarkable in northern India than in the other states of India. A logit model has been used to prove the hypothesis.

Further, the disintegration method was adopted to compute the role of the explanatory variables in explanation variances in prospects of finishing schooling across sections. The study concluded that gender inequalities are higher for gross and rural people in the northern states. In addition, the remaining result after accounting for the effect of descriptive variables opposite to inequality is more outstanding in eastern states, regardless of habitation residence. In another study, the expansion in the social infrastructure in Karnataka has been described (Avinash T.,

2017), and the Compound Annual Growth Rate of Primary Schools in Karnataka has been estimated for 1960-61 to 2012-13. An Infrastructure Index for Educational Development was constructed using factor analysis for 2012-13 for all districts. The analysis outcomes revealed an increment in the primary school numbers in Karnataka in the proposed period with a compound annual growth rate of 1.53 per cent, and around 98 schools were found for the per lakh population. An insignificant difference was found in the northern and southern regions of the state.

The development index used by the UNISR: 1991 has been utilized to measure the different sizes of progress among hill states of India, using indicators such as female literacy rate, grade of urbanization and proportion of non-agriculture rural core labours to gross workers (Kutwal, 2015). Growth index = 1- deprivation score. The disparity ratio has been measured through the standard deviation of growth indices of states grouped by the mean of indices. Its result states that in Indian hill states, Mizoram had been publicly and economically the greatest advanced while Himachal Pradesh and Jammu & Kashmir are the minima progressed in social and economic growth correspondingly. The progress inequalities in rural improvement have declined after reforms. Inequalities in the four sectors of the economy, i.e., agriculture, education, service, and health in the districts of Odisha from 2012-13 to 2017-18, given 24 indicators, have been analyzed (Subudhi S. et al., 2019). The study used principal component analysis for the composite sector development indices. Five districts have performed sound economic and social development and were integrated into a highly developed category during 2017-18. The study concluded a decline in the regional disparity in the districts in the proposed time - period.

A composite education index has been constructed to evaluate disparities in Haryana (Narayan L. et al., 2018) using secondary data from the Statistical Abstract of Haryana, NSSO and Census. The study showed that inter-district, rural-urban, and male-female disparities exist in Haryana to a greater extent. Further, with Sopher's Disparity Index (1974) and Pearson's correlation coefficient and the linear regression analysis and test of significance (student's t-test), the disparity in education correlated the proposed indicators with the gap in literacy in the Nadia district of West Bengal has been analyzed (Basu T., 2018). It results in an insignificant relationship between the selected education indicators and the entire disparity index. In some blocks, the disparity in education was high and overall, male-female literacy declined. The educational status and reasons for its backwardness with policy measures taken by the government for Bakkarwal students in the Kakalote block of Rajouri district of Jammu & Kashmir studied in (Suri K. et al. 2016). With simple random sampling, the qualitative method for collecting data was used. Fifty households were chosen as the sample. Primary methods obtained data. It revealed that parents of school-going children were not aware of the worth of education in their lives. A high dropout rate of girls and boys in fourth, fifth and eighth classes has been found. Children are engaged in herding their animals and have a low interest in education.

The relationship between education and economic growth in the long run of Nepal has been analyzed from 1995 to 2013 (Dahal G. et al. 2016). The Johanson Co-integration technique and the Ordinary Least Square method were applied, indicating a significant contribution of education to Nepal's economic growth or real GDP per capita. The data obtained for the study is from the IMF (World Development Indicators) and UNDP. It found a positive relationship between education and economic growth in the long run in Nepal. Further (Azzizah Y. 2015) reviewed the current situation and extent of disparities in education in regions of Indonesia's eastern and western parts and correlated it with socio-economic factors. Surveys are conducted by BPS (Biro Pusat Statistik) such as the Susenas, Suryadharmaet etc. Standard deviation and regression analysis have been used to establish the relationship between inequality and social

and economic factors in Indonesia. There was a large gap between imbalance and social and economic factors. There was a need to reduce disparities, and efforts should be made towards poverty eradication and support educational activities. The health disparities and changes in child's achievements over time to the limited success of the "No Child Left Behind Act of 2001" in the USA was studied (Fiscella K. et al. 2014). There was a need for resources to reduce the gap in student achievement through key reforms allocated accordingly. (Villar A. 2013) proposed a multi-dimensional indicator that reviews three related aspects of educational attainments. The study was based on the Programme for International Student Assessment (PISA) Report. It is concerned with the reading ability of students of fifteen-year-old of 65 nations and considers the three aspects of the study: performance, equity, and quality. The educational development index is constructed and compared with the common PISA achievements. The EDI makes a category universally believed does not vary enormously from that obtained by considering the PISA achievements alone.

Some view that disparities in education effects mortality across causes of death in the U.S. (Miech R. et al., 2011) and studied the relationship between mortality and education from 1999 to 2007. It revealed that for rising mortality rates, widening inequities via education were concentrated on end. It indicated that it is achievable by anticipating which death inequalities are likely to expand soon, which is essential for initiatives aiming to prevent new disparities from arising. (Behera P.K. et al., 2019) investigated the multi-dimensional disparities of Eastern and Southern Indian elementary schools regarding literacy, enrollment, gender gap ratios, and dropout rates. It measured the compound annual growth rate and found a huge disparity and a wide gap between girls and boys enrolment. The literacy and enrolment have been increased over time. It is due to implementing different state government policies, but the other imbalance remains a severe problem. At the national level, the objective and importance of having primary education, i.e. people can read, write, and solve fundamental numerical problems (Vanitha K., 2016), have been examined. It stated that, in India, the universalization of primary education had been compromised. Therefore, there is a need to implement such programs at every level, i.e., National, State and District, that helps increase the quality of primary education.

Presently, the ASER is the major source to know the status of elementary education in India. Since 2005, the ASER has been conducted in each rural district of India (Gautam C., 2015). The domestic samples of kids were used to assess them in the classroom. On the other hand, the NCERT also conducted the National Achievement Survey on school campuses. It examines children's knowledge and skills. The ASER indicates a significant rise in enrolment and retention, but a fall in learning results has accompanied this. The enrollment in rural areas has increased in Private schools, and poor parents were living in kutcha huts are now enrolling their kids in private schools for learning.

Table 1 shows a detailed view of the above studies. It depicts the objectives and tools, and techniques used by different authors.

Table 1: Educational Disparities Related Studies

Name of authors	objectives	Methodology	Tools used
Farrell T. M. et al. 2020	Measuring gender disparities using cross-sectional facts to analyze "Health and Aging in Africa: A Longitudinal Study of an INDEPTH Community in South Africa (HAALSI)".	Descriptive study, based on secondary data.	Independent chi-square test and the t-test.
Patil	measuring the differences in literacy	Descriptive study	Factor analysis

D.R. et al. 2017	among the diverse location, regions, sex, and castes in India	based on secondary data	
Panigrahi S.C. 2016	Analyze the proficiencies in subjects and the regional languages, English and mathematics of children at the primary level in rural areas of India.	Descriptive study based on secondary data	Principal Component Analysis, Kaiser-Meyer-Olkin and Bartlett's test
Chaudhary R.D. et al. 2013	Analyze the educational quality in rural regions of India by constructing Learning Achievement Index for ASER 2010.	Descriptive study based on secondary data	Principal Component Analysis and Ordinary Least Square Regression.
Hussain Z. 2010	Examining the gender dissimilarity in the probability of finishing school education across various areas of India.	Descriptive study based on secondary data	Sopher's Disparity Index
Avinash T. 2017	Examining the expansion in the social infrastructure in Karnataka and growth rate of Primary Schools in Karnataka for 1960-61 to 2012-13.	Descriptive study based on secondary data	Compound Annual Growth Rate and Factor Analysis.
Kutwal 2015	Measuring the dissimilar sizes of progress among hill states of India, using indicators such as female literacy rate, grade of urbanization and proportion of non-agriculture rural core labours to gross workers	Descriptive study based on secondary data	development index used by the UNISR: 1991 and Standard Deviation.
Subudhi S. et al. 2019	Measuring inequalities in the four sectors of the economy, i.e., agriculture, education, service, and health in the districts of Odisha from 2012-13 to 2017-18	Descriptive study based on secondary data	Principal Component Analysis.
Narayan L. et al. 2018	Computing the extent of disparities in education in Haryana.	Descriptive study based on secondary data	Factor Analysis
Basu T. 2018	Analyzing the differences of education status in the literacy rates of Nadia district in West Bengal.	Descriptive study based on secondary data	Sopher's Disparity Index, Pearson's Correlation Coefficient, Linear Regression Analysis and Student's t Test.
Suri K. et al. 2016	Study the reasons for educational backwardness and measures taken by the government for Bakkarwal students in the Kakalote block of Rajouri district of Jammu & Kashmir	The qualitative method for collecting data was used.	Simple random sampling,
Dahal G. et al. 2016	Study the relationship between education and economic growth of Nepal.	Descriptive study based on secondary data	Johanson Co-integration technique and the Ordinary Least Square method
Azzizah Y. 2015	Study the recent situation and extent of disparities in education in regions	Primary data collected through	Standard deviation and regression

	of Indonesia's eastern and western parts	Surveys	analysis.
Fiscella K. et al. 2014	The health disparities and changes in child's achievements over time to the limited success of the "No Child Left Behind Act of 2001" in the USA	Descriptive study based on secondary data	
Villar A. 2013	To propose a multi-dimensional indicator that reviews three related aspects of educational attainments.	Descriptive study based on secondary data	Principal Component Analysis.
Miech R. et al., 2011	study the relationship between mortality and education from 1999 to 2007	Descriptive study based on secondary data	
Behera P.K. et al., 2019	To study disparities of Eastern and Southern Indian elementary schools	Descriptive study based on secondary data	
Vanitha K., 2016	Examine the significance of elementary education at National level	Descriptive study based on secondary data	
Gautam C., 2015	Study the ASER conducted in each rural district of India.	Descriptive study based on secondary data	

FINDINGS

Some view that disparities in education effects mortality across causes of death in the U.S. (Miech R. et al., 2011) and studied the relationship between mortality and education from 1999 to 2007. It revealed that for rising mortality rates, widening inequities via education were concentrated on end. It indicated that it is achievable by anticipating which death inequalities are likely to expand soon, which is essential for initiatives aiming to prevent new disparities from arising. In (Behera P.K. et al., 2019), researchers investigated the multi-dimensional inequalities of Eastern and Southern Indian elementary schools regarding literacy, enrollment, gender gap ratios, and dropout rates. It measured the compound annual growth rate and found a huge disparity and a wide gap between girls' and boys' enrolment. Literacy and enrolment have increased over time. It is due to the implementation of different state government policies, but the other imbalance remains a severe problem. At the national level, the objective and importance of having primary education, i.e. people can read, write, and solve fundamental numerical problems (Vanitha K., 2016), have been examined. It stated that, in India, the universalization of primary education had been compromised. Therefore, there is a need to implement such programs at every level, i.e., National, State and District, that help increase the quality of primary education.

The ASER is the primary source to know the status of elementary education in India. Since 2005, the ASER has been conducted in each rural district of India (Gautam C., 2015). The domestic samples of kids were used to assess them in the classroom. On the other hand, the NCERT also conducted the National Achievement Survey on school campuses. It examines children's knowledge and skills. The ASER indicates a significant rise in enrolment and retention, but a fall in learning results has accompanied this. Private schools have increased enrollment in rural areas, and poor parents were living in kutcha huts are now enrolling their kids in private schools for learning.

CONCLUSION

There is a significant relationship between disparities and the growth of an economy. There are various disparities within which educational disparities are the foremost concern of every

economy. Researchers have studied the existence of different types of educational disparities regarding gender, literacy, women's education, children's learning achievements, etc.

In India's 19th and 20th centuries, the situation of women's education improved. Still, it had an upper-class bias and was restricted by traditions and apprehensions highlighting Brahmanical patriarchy. While in recent views, there are many differences in education in the northern and southern regions of India. The southern states have made significant progress and have achieved quality education than the regions of the north.

Presently, the primary source to identify the situation of elementary education in India is ASER. It has been conducted in each rural district since 2005 in India. It uses domestic samples of children. At the same time, another source to study educational status is NCERT which conducts the National Achievement Survey on school campuses and examines the knowledge and skills of children.

The study also shows the tools and techniques used to identify educational disparities. Principal Component Analysis (PCA) is the central tool. Different indices can be constructed from PCA, and the states are categorized into different groups based on these indices' values. Further, standard deviations, regression, and correlation are other tools to measure the disparities.

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SEGMENT REPORTING PRACTICES OS TCS AND INFOSYS**Gayatri Guha Roy¹ and Rasmi Ranjan Sutar²**¹Research Scholar and ²Research Scholar, P.G. Department of Commerce, Fakir Mohan University, Balasore, Odisha**ABSTRACT**

Segment reporting can be defined as the disaggregation of the financial statements of a company or a group of companies into different segments covering sales, revenues and profits, line of business and geographical markets. Large companies with diversified product lines/marketing regions, which may differ from each other with respect to profitability, growth potential and risk, evidently require segment reporting for highlighting different areas. Information about the segment contributes to investor evaluation of corporate enterprises. Investors would be able to assess the company's earning potential, cash flows, risk and growth. It would also help the management of the company to evaluate the internal management of the company and frame segment specific policies. The scope of this study is to provide an insight into segment reporting practices of TCS and INFOSYS. The present study covers a period of 3 years, which starts from the year 2019-20 to 2021-22. The researcher has used secondary method of data collection. The secondary data are collected from the annual reports of TCS and INFOSYS, journals, magazines, newspapers and websites. The objective of the study is to analyze the segment report of TCS and INFOSYS. It was found that there is significant difference between the means of segment revenues of TCS and INFOSYS. It was also found that there is no significant difference between the means of geographic segment revenues of TCS and INFOSYS.

Keywords: Segment Reporting, Reportable Segment, Risk, Consistency, Growth

INTRODUCTION

Segment reporting refers to the disclosure of information regarding an enterprise's operations in different segments, industries, its foreign operations and export sales, and its major customers. Now a day it is necessary to communicate the operating performance of each segment to various users of financial information for the better understanding of and analysis of the enterprise's performance including its performance in diversified activities. As corporates are more complicated over the years, it has become necessary to disclose the financial statements which show the full scope of an enterprise's operations. It helps to access the overall financial health of the entity using these financial I information. The main objectives of the segment reporting are to disclose information by segment is to provide users of financial statements with information on the profit, relative size, contribution, and growth trend of the different industries and different geographical areas in which enterprise operates to enable them more informed judgment about enterprise as a whole.

LITERATURE REVIEW

1. **Basha, Haralayya and Vibhute (2021)** analyzed **Segment Reporting with Reference to Selected Software Companies**. The purpose of the study was to analyze segment reporting of selected software companies namely INFOSYS, WIPRO, HCL, MINDTREE, and CYIENT with respect to operating segment and geographical segment, using descriptive statistics method. The researcher collected both primary and secondary data for this study, and recommended that and found that "FSI of segment of Infosys is the highest average revenue, the lowest risk, the most consistency & the greatest growth rate during the study period followed by LSH segment with average revenue of 3620cr, risk of 1109, cons 0.527, compound annual growth rate of 8.8%. ECS segment of Infosys secure the 2nd highest average income.

2. **Sulik-gorecka, a (2020)** examined **information value of the reporting in the polish energy sector**. The purpose of this study was to examine the content of financial statement regarding segment information and asses its suitability for shareholders. It was found that large variety of information on published segments should be stated, despite the facts that the audited company groups belong to one sector. Differences were observed in both segments' identification, segments measurement principles, presentation of assets and liabilities. Some of the requirements of IFRS 8 were not met at all.
3. **Saleh, Abound and Eliwa (2020)** studied **IFRS 8, and the cost of capital in Europe**. The researchers investigated whether segment reporting quality had an impact on the cost of capital after the adoption of IFRS 8, and found no significance association between segment reporting quality and the cost of equity capital after the adoption of IFRS 8, with the exception of cross variability of segment return that shows a significance coefficient.
4. **Mardini et al (2018)** discussed **the extent of segment reporting and its value relevance: cross-country evidence** with the objective of examining the values relevance of segmental reporting after the post-implementation review of IFRS 8. The Ohlson (1995) model has been used for this purpose: this model has been widely employed by many empirical studies in both developed and developing countries and found that the amount of segmental information disclosed by the sample firms differs across sectors. Moreover, the segmental information provided is value relevant and can explain variations in firms' share price.
5. **Vlad, M. (2016)** carried out **A study of segment reporting practices: empirical evidence from Romania's banks**. The main objective of the study was to characterize the segment reporting practices for Romanian listed banks on Bucharest Stock exchange. The researcher drew three hypotheses the researcher found that the primary format for segment reporting in banks is the segmentation activities. At some banks, because some carried out operations have not been subject to risks and similar benefits, both in terms of the economic environment and it terms of the type of services, there were no identifiable segments which should be reported separately under the provisions of neither IAS 14 nor starting the application year of IFRS 8.
6. **Zimnicki, T. (2016)** Analysed **Responsibility Accounting Inspiration for Segment Reporting**. Its aim was to pay attention to the genesis of the segment reporting, which according to the researchers should not be seen as somethings newly created by financial reporting. Segment reporting origins should be seen in responsibility accounting, which was a response of the internal accounting system for the need of the management decentralization concept. The study was based on theoretical aspects. The researcher concluded that with the development of the company it is necessary to implement management system based on decentralization. But decentralisation without adequate information system is not enough. The management system will be effective if it has information about scheduled tasks in the form of the budget, their results through the presentation of incurred costs, received revenues, involved assets and liabilities, and the analysis of the deviations and their causes in each of separated activity areas.
7. **Nattarinee, K. (2016)** conducted an empirical study on **The IFRS 8 segment reporting disclosure: evidence on the Czech listed companies**. The researchers founded (1) the entities identified their segments as geographical areas at 90% , while at 60% identified as their products or services, the combination segment was disclosed 20%, and at 50% of the sample disclosed both their products, services or geographical areas: (2) at 60% of entities disclosed there types of products and services, while 40% did not provide the reports; concerning an entity- wide information, the research shows at 60% of entities disclosed their external revenue from products and services and geographic areas, while at 40% disclosed

either, at the same time, assets for each geographical areas disclosed at 80% and major customers at 10%.

8. **Leung, and Verriest, (2015)** analyzed **The Impact of IFRS 8 on Geographical Segment Information**. The objective of this study was to examine the impact of IFRS 8 on segment reporting of European firms. i.e. (i) the impact of IFRS 8 on geographical segment disclosures, (ii) cross-sectional differences in the effect of IFRS 8 adoption, and (iii) whether IFRS 8 has had any economic and informational consequences. The researcher used multivariate analyses, unilateral and descriptive analysis found that there are relatively few firms that report as a single geographical segment firm under both regimes: we observe three (two) single segment firms under IAS 14 (IFRS 8). The researchers also found that the number of firms that report segment income under IFRS 8 declines significantly from 243 to 206, suggesting a loss of information about segment income.
9. **Altaf, N. (2014)** studied the **Impact of Segment Reporting On Stock Market Performance** with the objective of a) to access the impact of segment reporting on the stock market performance. b) To analyze the segment reporting practices adopted by nifty 50 companies. The study has already been conducted using secondary data and regression analysis. It was found that variations in share price are explained by total segments, EPS and book value.

RESEARCHN GAP

In the recent past a large number of studies have been conducted on segment reporting practices. In India the number of studies on segment reporting specially with reference to IT sectors (software companies) is very less So, there has been a huge scope to make study on segment reporting practices on TCS and INFOSYS for the period of 2019-20 to 2021-22 as there is few studies on these companies for this period.

OBJECTIVES OF THE STUDY

The objective of the study is:

- To analyze the segment reports of TCS and INFOSYS with respect to business segment and geographical segment.
- To evaluate the contents of segmental disclosures in providing information required for investors and other parties.

HYPOTHESES OF THE STUDY

H₀₁: "There are no significant differences in business segment revenues of TCS and INFOSYS".

H₀₂: "There are no significant differences in geographical segment revenues of TCS and INFOSYS."

Sample Size

The study is confined to Tata Consultancy Services Ltd. and INFOSYS Ltd. The companies selected provide an insight on segment reporting disclosures.

DATA COLLECTION METHOD

The researcher has used secondary method of data collection for his convenience. The secondary data are collected from the annual reports of TCS and INFOSYS, journal, magazines, newspapers and web sites.

Period of the Study

Here researcher undertakes research on segment reporting practices for TCS Ltd. and INFOSYS Ltd. The researcher undertakes research for the period of three years ranging from 2018-20 to 2021-22.

Tools and Techniques of Data Collection

For this study, researcher has used secondary data as a source of information for this research e.g., the annual reports, websites and other publications. The research has used statistical tools like AVERAGE, STANDARD DEVIATION and Analysis of variance (ANOVA). For carrying out statistical analysis MS Excel 2021 application package has been used.

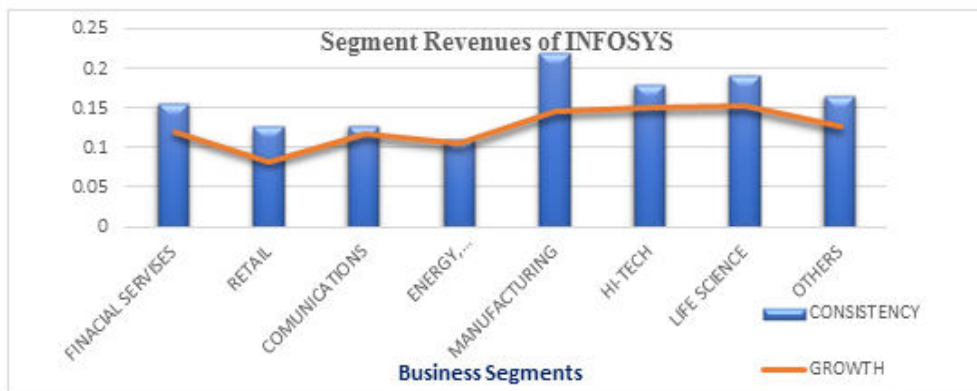
DATA ANALYSIS & INTERPRETATION

Business Segment Reporting of Infosys

(Table No. – 1)

INFOSYS									Growth			
Segment Revenue												
Business Segments	2019	2020	2021	2022	Average	Risk	Consistency	Growth	2020	2021	2022	Average Growth
Financial Services	26477	28625	32583	38902	33370	5183.503	0.155	0.119	0.075	0.121	0.162	0.119
Retail	13556	14035	14745	17734	15504.667	1963.025	0.126	0.083	0.034	0.048	0.168	0.083
Communications	10426	11984	12628	15182	13264.667	1691.392	0.127	0.116	0.130	0.050	0.168	0.116
Energy, Utility, Resources and Services	10390	11736	12539	14484	12919.667	1412.995	0.109	0.104	0.114	0.064	0.134	0.104
Manufacturing	8152	9131	9447	13336	10638	2341.872	0.220	0.144	0.107	0.033	0.291	0.144
Hi-Tech	6177	6972	8560	10036	8522.667	1532.341	0.179	0.148	0.114	0.185	0.147	0.148
Life Science	5203	5837	6870	8517	7074.667	1351.671	0.191	0.150	0.108	0.150	0.193	0.150
Others	2294	2471	3100	3450	3007	496.081	0.164	0.125	0.071	0.202	0.101	0.125

(Data Source: compiled from the annual reports of Infosys, link: <https://www.bseindia.com/stock-share-price/infosys-ltd/infy/500209/financials-annual-reports/>)



(Figure 1)

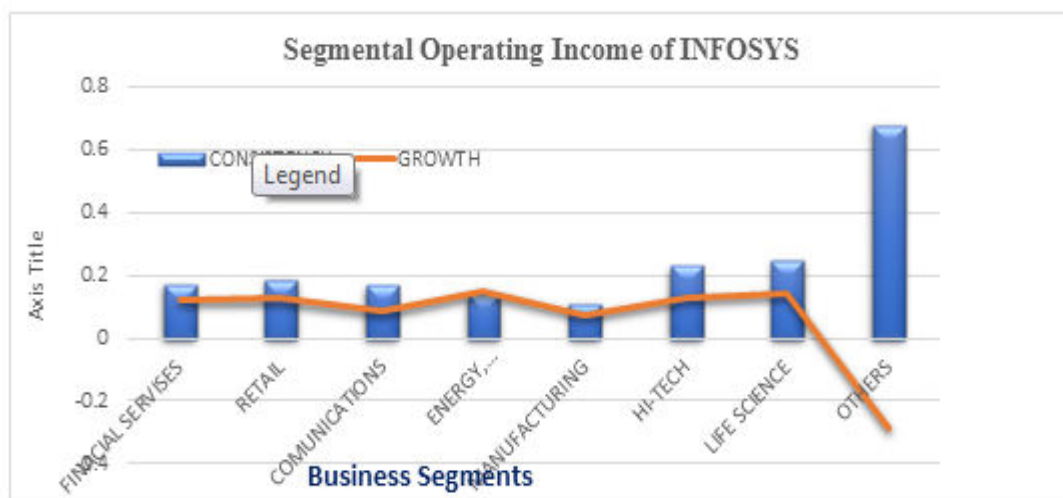
Interpretation

Retail segment of Infosys Ltd. has the highest average revenue of Rs. 15504.667 Cr., low risk of 1963.025, consistency of 0.126 and lowest compound annual growth rate of 8.3% for the period of the study. Followed by the Communication segment with the second highest average of Rs. 13264.667Cr., risk of 1691.392, consistency of 0.127 and moderate growth rate of 11.6 %, Life Science segment of Infosys has the highest compound annual growth rate of 15%, average revenue of 7074.667 Cr., risk of 1351.671 and with second highest consistency of 0.191, Financial services segment has average revenue of Rs. 33370 Cr., risk of 5183.503, consistency of 0.155 and growth rate of 11.9%, Energy, Utility, Resources and services segment has average revenue of Rs. 12919.667Cr., Risk of 1412.995, consistency of 0.109 and a growth rate of 10.4%, Manufacturing segment has average revenue of Rs.10638 Cr., risk of 1412.995, consistency of 0.220 and growth rate of 14.4 %, Hi-Tech segment has average revenue of Rs. 8522.667 Cr., risk of 1532.341, consistency of 0.179 and second highest growth rate of 14.8%, and all other segments of Infosys have a collective average revenue of Rs. 3007 Cr., risk of 496.081, consistency 0.164 and compound annual growth of 12.5% respectively.

(Table No. – 2)

Segmental Operating Income									Growth			
Business Segments	2019	2020	2021	2022	Average	Risk	Consistency	Growth	2020	2021	2022	Average Growth
Financial Services	6878	7306	8946	10314	8855.333	1506.048	0.170	0.124	0.058	0.183	0.132	0.124
Retail	4034	4212	5117	6130	5153	959.506	0.186	0.128	0.042	0.176	0.165	0.128
Communications	2517	2424	2795	3374	2864.333	478.780	0.167	0.088	-0.038	0.132	0.171	0.088
Energy, Utility, Resources and Services	2542	3216	3552	4225	3664.333	513.794	0.140	0.154	0.209	0.094	0.159	0.154
Manufacturing	1853	2059	2563	2408	2343.333	258.147	0.110	0.077	0.100	0.196	-0.064	0.077
Hi-Tech	1548	1604	2454	2495	2184.333	503.001	0.230	0.132	0.034	0.346	0.016	0.132
Life Science	1419	1431	2156	2380	1989	496.051	0.249	0.146	0.008	0.336	0.094	0.146
Others	116	64	306	167	179	121.445	0.678	-0.284	-0.812	0.790	-0.832	-0.284

(Data Source: compiled from the annual reports of Infosys, link: <https://www.bseindia.com/stock-share-price/infosys-ltd/infy/500209/financials-annual-reports/>).



(Figure 2)

Interpretation

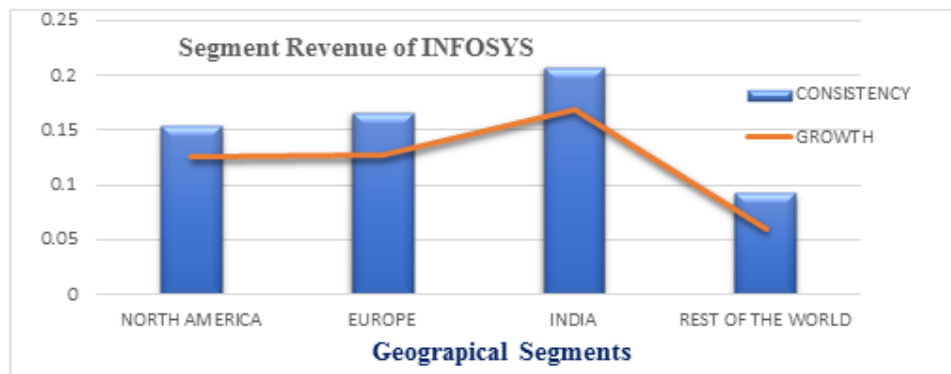
The Financial services segment of Infosys has the highest average segmental operating income of Rs. 8855.333 Cr., with a risk of 1506.048, consistency of 0.170 and a growth rate of 12.4%. Followed by the retail segment with the second highest average segmental operating income of Rs.5153 Cr., risk of 959.506, consistency of 0.186 and compound annual growth of 12.8%. The Communications segment has an average segmental operating income of Rs. 284.333 Cr., with 478.780, consistency of 0.167 and a growth rate of 8.8%. The Energy, Utility, Resources and services segment has an average segmental operating income of Rs. 3664.333Cr., with a risk of 513.794, consistency of 0.140 and with the highest growth rate of 15.4%. manufacturing segment has an average operating income of Rs. 2184.333, risk of 258.147, consistency of 0.110 with a growth rate of 7.7%. Hi-tech segment has an average operating income of Rs. 2184.333Cr., a risk of 503.001, consistency of 0.230 and growth rate of 13.2%. life science has average operating income of Rs. 1989 Cr., risk of 496.051, consistency of 0.249 and growth of 14.6% and all other segments of Infosys have average operating income of Rs. 197 Cr., with risk of 121.445, consistency of 0.678 and negative compound annual growth of – 28.4% for the period of the study

Geographic Segment Reporting of Infosys

(Table No. – 3)

Geographical Segments	Segment Revenue								Growth			
	2019	2020	2021	2022	Average	Risk	Consistency	Growth	2020	2021	2022	Average Growth
North America	50038	55807	61640	75058	64168.333	9871.403	0.153	0.125	0.103	0.094	0.178	0.125
Europe	19942	21916	24303	30129	25449.333	4224.796	0.166	0.127	0.090	0.098	0.193	0.127
India	2048	2365	2899	3585	2949.667	611.576	0.207	0.169	0.134	0.184	0.191	0.169
Rest of the World	10647	10703	11630	12869	11734	1086.738	0.092	0.060	0.005	0.079	0.096	0.060

(Data Source: compiled from the annual reports of Infosys, link: <https://www.bseindia.com/stock-share-price/infosys-ltd/infy/500209/financials-annual-reports/>).



(Figure 3)

Interpretation

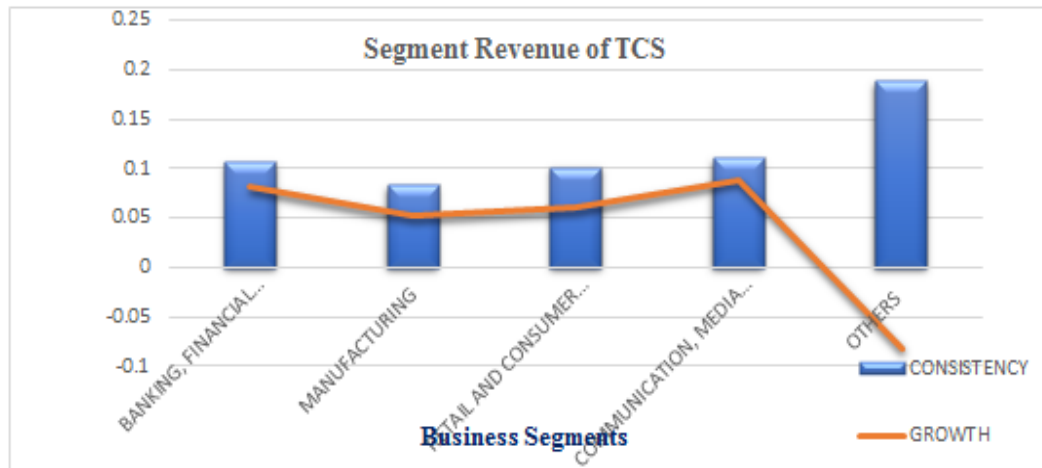
Infosys Ltd. has four geographical segments namely: North America, Europe, India and rest of the world. North America Geographical segment of Infosys has the highest average of Rs. 64168.333 Cr. With the second highest risk of 9871.403, consistency of 0.153 and compound annual growth of 12.5%. The Europe geographical segment has the second the highest average revenue of Rs. 25449.333 Cr., with highest risk of 4224.796, consistency of 0.166 and the second highest growth of 12.7%. India geographical segment of Infosys has average revenue of Rs. 2949.667 Cr., with a risk of 611.576, consistency of 0.207 and the highest compound annual growth rate of 16.9% for the period of study. All others geographical segments that is the rest of the World has an average revenue of Rs. 11734 Cr. With a risk of 1086.738, consistency of 0.092 and a growth rate of 6% for the period of the study.

BUSINESS SEGMENT REPORTING OF TCS

(Table No. – 4)

Business Segments	Segment Revenue								Growth			
	2019	2020	2021	2022	Average	Risk	Consistency	Growth	2020	2021	2022	Average Growth
Banking, Financial Services and Insurance	57,938	61095	65634	75126	67285	7159.720	0.106	0.082	0.051	0.069	0.126	0.082
Manufacturing	15,682	16468	15950	18610	17009.333	1410.206	0.082	0.052	0.047	-0.032	0.142	0.052
Retail And Consumer Business	25,164	26280	25589	30715	27528	2781.563	0.101	0.060	0.042	-0.027	0.166	0.060
Communication, Media and Technology	23,925	25978	27077	31874	28309.667	3135.331	0.110	0.090	0.079	0.040	0.150	0.090
Others	23,754	27128	29927	20462	25839	4862.375	0.188	-0.081	0.124	0.093	-0.462	-0.081

(Data Source: compiled from the annual reports of TCS, link: <https://www.bseindia.com/stock-share-price/tata-consultancy-services-ltd/tcs/532540/financials-annual-reports/>).



(Figure 4)

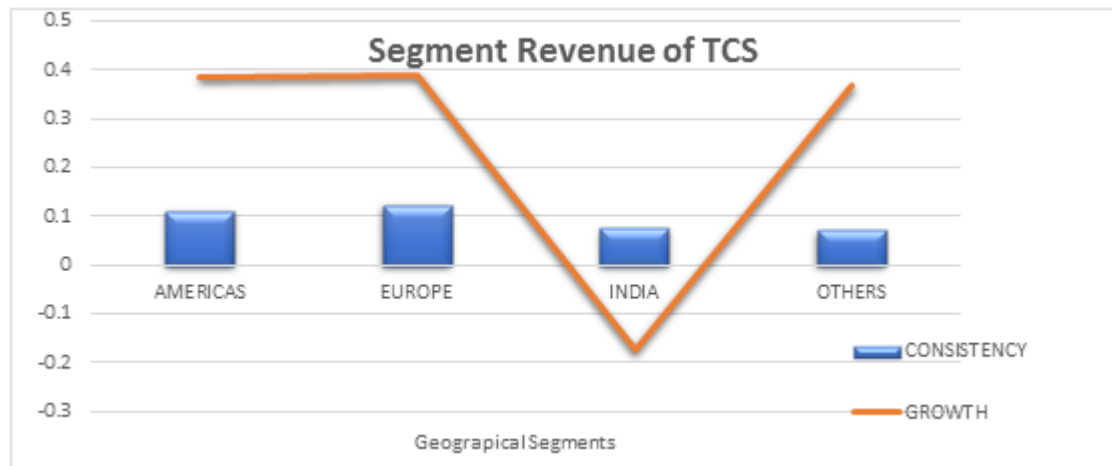
Interpretation

Tata Consultancy Services has various business segments namely Banking, Financial services and insurance segment, manufacturing segment, Retail and consumer business segment, Communication, and media technology segment and all other segments. Among these segments Banking, Financial services and insurance segment has the highest average revenue of Rs. 67285 Cr. For the period of the study with a risk of 7159.720, consistency of 0.106, and the second highest annual compound growth rate of 8.2%. followed by the Communication, Media and technology segment which has an average revenue of Rs. 28309.667 Cr., with a risk of 3135.331, consistency of 0.110 which is the second highest consistency and highest growth rate of 9%, Manufacturing segment of Tata consultancy services has an average revenue of Rs. 17009.33 Cr., with a risk of 1410.206, consistency of 0.082 and compound annual growth of 5.2%, Retail and consumer business segment has an average revenue of Rs. 27528Cr., with a risk of 2781.563, consistency of 0.101 and growth of 6% and all other segments of Tata Consultancy Services have a combined average revenue of Rs. 25839 Cr., with a risk of 4862.375, consistency of 0.188 and with a negative compound average growth of -8.1% for the period of study.

Geographic Segment Reporting of Infosys (Table No. – 5)

Geographical Segment	Segment Revenue								Growth			
	2019	2020	2021	2022	Average	Risk	Consistency	Growth	2020	2021	2022	Average Growth
Americas	1531	82000	84278	100072	88783.333	9842.398	0.110	0.388	0.981	0.027	0.157	0.388
Europe	2250	48037	52346	61142	53841.667	6679.297	0.124	0.393	0.953	0.082	0.143	0.393
India	14313	8964	8449	9805	9072.667	684.500	0.075	-0.173	-0.596	-0.060	0.138	-0.173
Others	539	17948	19104	20735	19262.333	1400.230	0.072	0.369	0.969	0.060	0.078	0.369

(Data Source: compiled from the annual reports of TCS, link: <https://www.bseindia.com/stock-share-price/tata-consultancy-services-ltd/tcs/532540/financials-annual-reports/>).



(Figure 5)

Interpretation

Tata Consultancy Services has the following Geographical segments namely Americas, Europe, India and all other segments. These segments are based on geographical locations. Americas Geographical segment of Tata Consultancy Services has the highest average revenue that is Rs. 88783.33 Cr., with a risk of 98542.398, consistency of 0.110 which is the second highest consistency among the segments and average compound annual growth rate of 38.8%. Followed by the Europe geographical segment with an average revenue of Rs. 53841.667 Cr., risk of 6679.297, consistency of 0.124 which is the highest consistency among the segments and has the highest growth rate of 39.3%. India geographic segment has average revenue of Rs. 9072.667Cr. which is lowest in comparison with the Americas and Europe Segments and has a risk of 684.500, consistency of 0.075 and a negative compound annual growth rate of -17.3% for the period of study. All other segment have combined average revenue of Rs.19262.333Cr. with a risk of 1400.230, consistency of 0.072 and a growth rate of 36.9%.

Hypothesis1:H₀₁: “There are no significant differences in business segment revenues of TCS and INFOSYS”.

(Table No. – 6)

INFOSYS	Revenues			Average Revenue	TCS	Revenues			Average Revenue
Business Segments	2020	2021	2022		Business Segments	2020	2021	2022	
Financial Services	28625	32583	38902	33370	Banking, Financial Services and Insurance	61095	65634	75126	67285
Retail	14035	14745	17734	15504.66667	Manufacturing	16468	15950	18610	17009.33
Communications	11984	12628	15182	13264.66667	Retail And Consumer Business	26280	25589	30715	333
Energy, Utility, Resources and Services	11736	12539	14484	12919.66667	Communication, Media and Technology	25978	27077	31874	27528
Manufacturing	9131	9447	13336	10638	Others	27128	29927	20462	28309.66
Hi-Tech	6972	8560	10036	8522.666667					667
Life Science	5837	6870	8517	7074.666667					
Others	2471	3100	3450	3007					25839

(Data Source: compiled from the annual reports of TCS, link: <https://www.bseindia.com/stock-share-price/tata-consultancy-services-ltd/tcs/532540/financials-annual-reports/>).

(Data Source: compiled from the annual reports of Infosys, link: <https://www.bseindia.com/stock-share-price/infosys-ltd/infy/500209/financials-annual-reports/>).

To study the significant differences in segment revenues of TCS and INFOSYS we carry one-way ANOVA.

Anova Table of Business Segment Revenue**(Table No. – 7)**

Summary						
Groups	Count	Sum	Average	Variance		
INFOSYS	8	104301.3333	13037.66667	83124369.81		
TCS	5	165971	33194.2	383549002.3		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1250110265	1	1250110265	6.498478321	0.027033025	4.844335675
Within Groups	2116066598	11	192369690.7			
Total	3366176862	12				

Since the p value (0.027) is less than 0.05, the null hypothesis is rejected. It can be concluded that there is a statistically significant difference between the means of the business segment revenue of INFOSYS and TCS at a significance level of 5%.

Hypothesis 2: H_{02} :“There are no significant differences in geographical segment revenues of TCS and INFOSYS”.

(Table No. – 8)

INFOSYS Geographic Segments	Revenues			Average Revenue	TCS Geographic Segments	Revenues			Average Revenue
	2020	2021	2022			2020	2021	2022	
North America	55807	61640	75058	64168.33	Americas	82000	84278	100072	88783.33
Europe	21916	24303	30129	25449.33	Europe	48037	52346	61142	53841.67
India	2365	2899	3585	2949.67	India	8964	8449	9805	9072.67
Rest of the World	10703	11630	12869	11734.00	Others	17948	19104	20735	19262.33

(Data Source: compiled from the annual reports of TCS, link: <https://www.bseindia.com/stock-share-price/tata-consultancy-services-ltd/tcs/532540/financials-annual-reports/>).

(Data Source: compiled from the annual reports of Infosys, link: <https://www.bseindia.com/stock-share-price/infosys-ltd/infy/500209/financials-annual-reports/>).

To study the significant differences between Geographical segment revenue TCS and INFOSYS we carry one way ANOVA.

Anova Table of Geographic Segment Revenue**(Table No. – 9)**

Summary							
Groups	Count	Sum	Average	Variance			
Column 1	4	104301.3333	26075.3	730646275.2			
Column 2	4	170960	42740	1309308571			
ANOVA							
Source of Variation		SS	df	MS	F	P-value	F crit
Between Groups		555422230.2	1	5.6E+08	0.54454	0.488401	5.987377607
Within Groups		6119864539	6	1E+09			
Total		6675286769	7				

Since the p value (0.488401) is greater than 0.05, the null hypothesis is accepted. It can be concluded that there is a statistically no significant difference between the means of the geographical segment revenue of INFOSYS and TCS at a significance level of 5%.

Brief Summary of the Hypotheses Tested

(Table No. – 10)

Hypothesis testing through One Way ANOVA			
Sl. No	Hypothesis	P Value	Outcome
H ₀₁	There are no significant differences in business segment revenues of TCS and INFOSYS	0.027033025	Null rejected
H ₀₂	There are no significant differences in geographical segment revenues of TCS and INFOSYS.	0.488401	Null Accepted

*Significant at 5% level of Significance.

FINDINGS

1. Retail segment of Infosys Ltd. has the highest average revenue of Rs. 15504.667 Cr., low risk of 1963.025, consistency of 0.126 and lowest compound annual growth rate of 8.3% for the period of the study. Followed by the Communication segment with the second highest average of Rs. 13264.667Cr., risk of 1691.392, consistency of 0.127 and moderate growth rate of 11.6 %, Life Science segment of Infosys has the highest compound annual growth rate of 15%, average revenue of 7074.667 Cr., risk of 1351.671 and with second highest consistency of 0.191, Financial services segment has average revenue of Rs. 33370 Cr., risk of 5183.503, consistency of 0.155 and growth rate of 11.9%, Energy, Utility, Resources and services segment has average revenue of Rs. 12919.667Cr., Risk of 1412.995, consistency of 0.109 and a growth rate of 10.4%, Manufacturing segment has average revenue of Rs.10638 Cr., risk of 1412.995, consistency of 0.220 and growth rate of 14.4 %, Hi-Tech segment has average revenue of Rs. 8522.667 Cr., risk of 1532.341, consistency of 0.179 and second highest growth rate of 14.8%, and all other segments of Infosys have a collective average revenue of Rs. 3007 Cr., risk of 496.081, consistency 0.164 and compound annual growth of 12.5% respectively.
2. Retail segment of Infosys Ltd. has the highest average revenue of Rs. 15504.667 Cr., low risk of 1963.025, consistency of 0.126 and lowest compound annual growth rate of 8.3% for the period of the study. Followed by the Communication segment with the second highest average of Rs. 13264.667Cr., risk of 1691.392, consistency of 0.127 and moderate growth rate of 11.6 %, Life Science segment of Infosys has the highest compound annual growth rate of 15%, average revenue of 7074.667 Cr., risk of 1351.671 and with second highest consistency of 0.191, Financial services segment has average revenue of Rs. 33370 Cr., risk of 5183.503, consistency of 0.155 and growth rate of 11.9%, Energy, Utility, Resources and services segment has average revenue of Rs. 12919.667Cr., Risk of 1412.995, consistency of 0.109 and a growth rate of 10.4%, Manufacturing segment has average revenue of Rs.10638 Cr., risk of 1412.995, consistency of 0.220 and growth rate of 14.4 %, Hi-Tech segment has average revenue of Rs. 8522.667 Cr., risk of 1532.341, consistency of 0.179 and second highest growth rate of 14.8%, and all other segments of Infosys have a collective average revenue of Rs. 3007 Cr., risk of 496.081, consistency 0.164 and compound annual growth of 12.5% respectively.
3. Infosys Ltd. has four geographical segments namely: North America, Europe, India and rest of the world. North America Geographical segment of Infosys has the highest average of Rs. 64168.333 Cr. With the second highest risk of 9871.403, consistency of 0.153 and compound annual growth of 12.5%. The Europe geographical segment has the second the

highest average revenue of Rs. 25449.333 Cr., with highest risk of 4224.796, consistency of 0.166 and the second highest growth of 12.7%. India geographical segment of Infosys has an average revenue of Rs. 2949.667 Cr., with a risk of 611.576, consistency of 0.207 and the highest compound annual growth rate of 16.9% for the period of study. All others geographical segments that is the rest of the World has an average revenue of Rs. 11734 Cr. With a risk of 1086.738, consistency of 0.092 and a growth rate of 6% for the period of the study.

4. Tata Consultancy Services has various business segments namely Banking, Financial services and insurance segment, manufacturing segment, Retail and consumer business segment, Communication, and media technology segment and all other segments. Among these segments Banking, Financial services and insurance segment has the highest average revenue of Rs. 67285 Cr. For the period of the study with a risk of 7159.720, consistency of 0.106, and the second highest annual compound growth rate of 8.2%. followed by the Communication, Media and technology segment which has an average revenue of Rs. 28309.667 Cr., with a risk of 3135.331, consistency of 0.110 which is the second highest consistency and highest growth rate of 9%, Manufacturing segment of Tata consultancy services has an average revenue of Rs. 17009.33 Cr., with a risk of 1410.206, consistency of 0.082 and compound annual growth of 5.2%, Retail and consumer business segment has an average revenue of Rs. 27528Cr., with a risk of 2781.563, consistency of 0.101 and growth of 6% and all other segments of Tata Consultancy Services have a combined average revenue of Rs. 25839 Cr., with a risk of 4862.375, consistency of 0.188 and with a negative compound average growth of -8.1% for the period of study.
5. Tata Consultancy Services has the following Geographical segments namely Americas, Europe, India and all other segments. These segments are based on geographical locations. Americas Geographical segment of Tata Consultancy Services has the highest average revenue for the period of study that is Rs. 88783.33 Cr., with a risk of 98542.398, consistency of 0.110 which is the second highest consistency among the segments and average compound annual growth rate of 38.8%. Followed by the Europe geographical segment with an average revenue of Rs.53841.667Cr., risk of 6679.297 consistency of 0.124 which is the highest consistency among the segments and has the highest growth rate of 39.3%. India geographic segment has an average revenue of Rs. 9072.667Cr. which is lowest in comparison with the Americas and Europe Segments and has a risk of 684.500, consistency of 0.075 and a negative compound annual growth rate of -17.3% for the period of study. All other segment of have combined average revenue of Rs.19262.333Cr. with a risk of 1400.230, consistency of 0.072 and growth rate of 36.9%.
6. In order to examine the significant differences in business segment revenues of TCS and INFOSYS ANOVA has been conducted. The analysis of variance is a powerful and common technique used in social science research to test the significant difference in the mean values of more than two groups. The results show that there is a significant difference between the means of segment revenues of TCS and INFOSYS. Since the p value (0.027) is less than 0.05, the null hypothesis is rejected. It can be concluded that there is a statistically significant difference between the means of segment revenues of TCS and INFOSYS at significance level of 5%.
7. In order to examine the significant differences in geographic segment revenues of TCS and INFOSYS ANOVA has been conducted. The results show that there is no significant difference between the means of geographic segment revenues of TCS and INFOSYS. Since the p value (0.488401) is greater than 0.05, the null hypothesis is accepted. It can be concluded that there is a statistically no significant difference between the means of geographic segment revenues of TCS and INFOSYS at significance level of 5%.

CONCLUSION

Reporting by segments is a useful exercise from stakeholders' point of view. They would have access to disaggregated data of high value which helps them in resolving many intricate issues in appraising corporate performance. The segment information would reveal the profitable and non-profitable areas of business activities, the relative contribution of each segment to overall growth and development, firm's strength and weaknesses, etc. The efficient running of the Company depends on evaluating the segmental performance. The performance of business segments on the basis of operating profit is covered under this study. The TCS and Infosys Companies are following the accounting standard for the purpose of segment reporting in its financial statements reporting and company significantly using the segment reporting information for taking their various investment judgments.

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SIX SIGMA'S CASE STUDIES: - AN INDIAN PERSPECTIVE**CA (Dr.) Hemant Kumar Gupta**

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ABSTRACT

Six Sigma is a systematic method for improvement of the processes through the scientific and statistical tools and reduce the defect rate in the processes and achieve superior quality in them. This paper reports about the research on Six Sigma benefits on Indian companies through case studies and how understating method and advantages of Six Sigma approach helped the companies to increase their proficiency and benefits. Here we will discuss about challenges faced in implementing these methodologies by the companies. Further we will throw light on goals of the company and how synchronizing with Six Sigma helped them to achieve goals at its double speed. At the end we will witness the outstanding result achieved by all of them and how they were all able to outperform against the set standard. This case study will motivate many other companies to implement Six Sigma methodology in their business model to achieve exceptional outcome.

Keywords: Six Sigma, Dabba Walas, Wipro, Tata Steel

INTRODUCTION

Six Sigma is a methodology implemented by various corporate to improve their process management. Some of them are Atos, Bank of America, Becton Dickinson, 3M, Amazon, Bechtel and Auto liv. Some Indian companies have also applied Six Sigma methodology and have received best results. In this paper case studies of Indian companies i.e., Tata Steel, Mumbai Dabba Walas, Wipro, which have applied this methodology and achieved astounding results has been discussed. Case study tells that how the operations were going inefficient, how the companies managed that at that time and what their approach was after applying Six Sigma methodology. It also tells about what levels of results have been achieved after applying this Six Sigma methodology and the overall benefits to these companies.

Towards the end of this paper it has been discussed that how applying Six Sigma methodology in business models will help various businesses in efficient operations and functions. This methodology is versatile in nature and can be applied in any type of company.

CASE STUDIES**1. Mumbai Dabba Walas**

Mumbai's Dabba Walas system started in 1890 in which army of 5000 dabba walas roam around the city to satisfy the hunger of two lakhs plus citizens with fresh home-made food eliminating the need of tasty and healthy food at reasonable rates. This system grew rapidly due to its flat organizational system, harmony between employees and employer, their common belief system, values and principles of every stake holder, simple but strict code of conduct, loyalty and trust, regular training and development of existing and new employees and employee equal to employer's status.

Above are the few reasons that made Mumbai dabba walas a huge success that bid multinational cooperation like Aditya Birla group, KPMG, Mahindra, OLA, Deloitte as their proud clients. Presently their turnover has reached upto 70 to 80 crores per year. They got the humongous milestone of Six Sigma rating because of their efficiency that reached to 99.9995 percent. Not even big Multinational Corporation is near to that number which is absolutely brilliant. The reason of this great achievement was simplifying coding system, quick response in delays and fast transport system.

To provide efficient service, it is necessary to be the best time managers. These dabba walas are rapid and quick in their services without wasting even a single second. Also, as a food transporter, they have to give utmost care to deliver the food to a particular place at a fixed time as it is really important to have proper meal on proper time and one cannot compromise with supper. The entire system is deliberately planned, organized and executed around each hour as a server to an office person. Their timings were quite similar to that of office timings that was 9 to 5. Though their day starts at 8 am in the morning, not only their performance is very high but also everything is done without fuel, big technology and investment and still providing 100 percent customer service and satisfaction. This is a system which was practiced first and various research studies have been done on them now.

All this led to achievement of Six Sigma certification in the year 1998 by getting a rating of 99.99999 i.e., only one error in six million transactions, which is a life time achievement for any organization. Even after achieving such greatness in their working they are still trying to improve their service, customer satisfaction and minimizing their operational time.

2. TATA STEEL

Tata steel is one of the leading steel manufacturers of the country. It is one of the most profit generating companies under the banner of Tata group of companies. Its revenue in year 2022 is 31 billion dollars. It started Six Sigma initiative in 2002. They sent Mr. Niloy Mitter for Six Sigma black belt training at Texas, USA. Mr. Forest Breyfogle has written to Dr Mukherjee, Managing Director of Tata Steel then, "I am not aware of any steel company that has implemented the Six Sigma the way you did."

With turnover of 3.2 billion dollars, Tata Steel was Asia's first and India's largest steel company to implement this methodology. It has continuously overcome the hindrances of highly competitive market and has always outperformed over its commitments. For more than 10 years Tata Steel has followed its own model in the name of Six Sigma which is Tata Business Excellence Model (TBEM) to seek and identify opportunities for operational improvement and bring brilliance in all of its projects while consistently hitting its target level of performance and every time trying to outperform over and above the benchmarks set earlier.

Using Six Sigma as evolution, Tata steel has put together a strategic operation management system in an area that constantly measures strategic variables through balanced parameters and other instruments. It helped them to remain competitive and upscale their business performance and overall management. It also helped them to focus and reduce mistake in every phase of a major process. It minimizes the product defect, incorrect billing and inefficient production. It increases cost competitiveness of the company making it cost effective as compared to the competitors.

Through application of Six Sigma Tata Steel was able to measure and monitor about 150 different performance parameters. So, Six Sigma helped Tata Steel to improve their production operation and overall efficiency. It made process simpler and more synchronized. It increased their efficiency and effectiveness without compromising in the quality and quantity of the product manufactured.

In 2002 Tata Steel started using Six Sigma methodology, now twenty years of successful implementation of this methodology shows how useful this methodology must have been for the company and how it has helped them to grow exponentially year after year. Through this way, Tata Steel was able to implement Six Sigma methodology perfectly and has achieved stupendous results.

3. WIPRO (Western Indian Palm Refined Oils Limited)

Western Indian Palm Refined Oils Limited was established by Azeem Premji in 1945 and it started its operation as a vegetable oil in 1946. It expanded the business in information technology sector in 1980's before the implementation of liberalization, privatization and globalization policy. Today it has become world class service provider of technical business problem solutions. With growing requirement of synchronizing all business operations, customer demand and continuous up gradation, WIPRO started focusing more on quality, leading to creation of an environment which requires the implementation of Six Sigma methodology.

Using Six Sigma methodology in a software development-oriented company was a rigorous task. And also, it is first ever Indian company to implement Six Sigma methodology. Its implementation brings challenges such as understanding quantitative tools, cost reduction and performance improvement without compromising on product quality.

Where one sigma gives accuracy of 68.27 percent, two sigma's give accuracy of 95.45 percent and three sigma's give accuracy of 99.73 percent, Six Sigma provide precision of 99.9997 percent. Though the difference between 99.73 percent and 99.9997 percent sounds negligible but it is huge for example in three sigma there are 2700 defects in one million opportunities but it is restricted to 3.4 defects in one million opportunities in case of Six Sigma. This means any company should be faultless in executing their operation for Six Sigma certifications.

Though it was challenging but WIPRO was the very first company to espouse the Six-Sigma methodology. WIPRO, as a first implementer of Six Sigma, took around 10 years in process improvement through this methodology. Six Sigma methodologies in company like WIPRO meant setting a higher bench mark for quality which strives for absolute perfection in product making. For WIPRO it would have meant providing products and services meeting global aspects, consistently meeting customer expectation and manufacturing best quality product in its culture.

WIPRO faced many difficulties in implementing Six Sigma methodology. It was difficult to build the culture and selection of proper project as pilot project for Six Sigma was a difficult task. Even training the employees for this was laborious task and collection of resources for implementation of the project was also difficult. But with hard work, dedication and consistency the project oriented Six Sigma culture became a sustainable culture in the company. This approach resulted in achievement of 250 percent of service development though the set target was 200 percent. The reason for the same was stupendous quality with simultaneous focus on defect elimination and increased productivity. It leads to lower development cost to the final consumer.

The overall results were outstanding, few of the benefits achieved by Western Indian Palm Refined Oils Limited (WIPRO) after applying this methodology are

1. 30 to 40 percent lower cost to ownership
2. 20 to 30 percent higher proficiency
3. On time completion of project

WIPRO implemented Six Sigma methodology in 1998 and after 24 years in 2022 the company is running its business operation successfully in the country and across the globe which shows how impactful and helpful the Six Sigma methodology have been for the company till now.

CONCLUSIONS

This research paper on case studies on Indian companies that have implemented Six Sigma methodology tells how some Indian companies like Tata Steel, Mumbai Dabba Walas and

WIPRO (Western Indian Palm Refined Oils Limited) have successfully implemented the principles and techniques of Six Sigma methodologies and have achieved fabulous results. For all of the above discussed three companies, it was extremely difficult to implement Six Sigma methodology in their own way.

Tata Steel, which requires no introduction as it comes under admirable brand name of Tata group of companies, is India's leading steel manufacturing company which followed Six Sigma in their own way by the name of Tata Business Excellence Model (TBEM) to improve its operational efficiency and productivity. For a steel manufacturing company like Tata Steel, it is very difficult to implement Six Sigma methodology as synchronization of the process is very cumbersome to achieve. But they did not leave any stone unturned to implement methodology and achieve desired results. It is because of this dedication and hard work the company is still earning billions of dollars of revenue making it one of the most profit generating companies under the banner of Tata.

For Mumbai Dabba Walas it was very onerous task to implement Six Sigma methodology since there was very less technical and more man power work involved in the job. Elimination of human error is very difficult but they were successfully able to reduce defects to 3 defects per one million opportunities. This was life time achievement for an Indian company as it is very difficult for multi-national company to achieve such a level of efficiency in their management. And they are still trying to work on cost reduction, time management and 100 percent customer satisfaction.

WIPRO (Western Indian Palm Refined Oils Limited) was first ever Indian company to implement Six Sigma methodology in 1998. As a pioneer it took around 10 years to upscale their operation management. It took time but WIPRO was able to implement Six Sigma methodology and satisfied their customer requirement by delivering orders on time.

At the end I would like to conclude that every company that wants to improve efficiency, effectiveness, productivity, cost reduction and wants to substantially increase its profitability should implement this methodology. It is versatile methodology which can be applied and implemented by any company which aspires to work flawlessly.

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SOCIAL MEDIA A NEW PLATFORM FOR POLITICAL COMMUNICATION IN INDIA

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ABSTRACT

In India, social media has emerged as a new platform for political communication between politicians and voters. Since the 2014 Lok Sabha elections, politicians in India have been employing social media for regular campaigning and communication purposes. The Lok Sabha elections of 2019 again witnessed politicians' and voters' unprecedented use of social media. The Bharatiya Janata Party and the Indian National Congress extensively leveraged social media platforms to communicate with voters. Among the two parties, the BJP made more effective use of social media than its opponent Congress. BJP had launched several online campaigns to entice voters to vote for them. These online campaigns include #Mai Bhi Chowkidar, #Mera Parivar Bhajapa Parivar, #Campaign360, #ModiHaiTohMumkinHai and others. The INC which also showed an active presence on social media, emerged as an appropriate competitor against BJP. The INC had also launched a few campaigns, such as "Chowkidar Chor Hai" to target the BJP's leader Narendra Modi. However, the BJP remained more dominant on social media in terms of campaigns and influence than its opponent Congress. The campaigns launched by BJP resonated well with the people than INC's online campaigns. This paper argues that BJP and INC used Twitter and Facebook during the 2019 Lok Sabha elections to influence the voters to vote for them. This paper also mentions the unofficial Facebook pages and groups that supported both BJP and Congress during the 2019 Lok Sabha elections.

Keywords: Social media, 2019 Lok Sabha elections, Twitter, Facebook, BJP, INC.

INTRODUCTION

The digital population in India has been increasing over the last decade. India is the world's most populous country with the highest percentage of young people. Indian politicians are increasingly using social media for regular political campaigning to communicate directly with people, influencing their behaviour and turning them into a vote base. Social media refers to emerging types of media that involves digital interaction. According to Kaplan and Haenlein (2010, p. 61) "Social Media is a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content." Social media has two main attributes: firstly, it involves participation and interaction; secondly, they are never inactive; they always involve some sort of communication (Harvey et al., 2014). Further, Kaplan and Haenlein (2010) has classified social media into six types namely collaborative projects like Wikipedia, blogs or microblogs like Twitter, social networks like Facebook, content communities or media sharing like YouTube, virtual games and virtual social world. It is being argued that social media plays a pivotal role in mobilising the people politically in India. In the contemporary era, social media is essential in promoting democracy, participation and awareness among the citizens. There are various instances like in the Philippines, Spain, Moldavia, and Arab Spring, where social media played a significant role politically. Today social media platforms in India play a game-changing role in Indian politics. It acts as a medium of political communication between politicians and citizens. Politicians today choose social media platforms to convey their message to the maximum number of people. The active use of social networking sites by BJP leaders is attributed to their success (Rao, 2019). Now social networking sites are becoming a new and necessary medium for political communication and mobilisation in India.

Obama was the first American presidential candidate who accepted social media's strength to promote his image in the 2008 election. To circumvent the traditional media and communicate directly with the citizens, Obama used different social networking sites to attract voters. According to the Pew Research organisation, Obama voters have played a leading role in online political activism. Similarly, in the 2012 U.S. presidential election, social media played a significant role in engaging young voters to go to the polls. BJP was inspired by how social media was used in the US presidential elections. During the 2014 and 2019 elections, BJP IT cells were extensively active on social media. India is witnessing the vast amounts of money being spent on digital advertisements during elections. During elections, national parties, notably BJP and INC, have been increasing their digital advertising spending. In India, politicians believe that social media is an important medium to influence voters and shape their public opinion. Undeniably social media is becoming a new platform for political communication and campaigning globally.

In recent years, social media has been routinely used for political campaigning and communication in India (Rao, 2019). The Lok Sabha election of 2019 has brought with it a new style of campaigning. The 2019 Lok Sabha election witnessed the unprecedented use of social media. The BJP has been the foremost political party to use social media for campaigning and engaging with voters during elections. The BJP has a stronger social media presence than any other political party in India. The current prime minister of India, Mr Narendra Modi, has been a tech-savvy politician since 2009 when he was the chief minister of Gujarat. He has a large following on Twitter, Facebook, Instagram, LinkedIn, and YouTube. Modi had an active online presence during the 2014 Lok Sabha elections. Modi used 3D hologram technology to beam to areas that he couldn't reach personally. This innovative approach attracted millions of young voters to the polls (Price, 2015). The role of social media significantly increased during the 2019 elections. The BJP skilfully integrated its conventional volunteer network with its new "digital army" for the 2019 Lok Sabha election campaign (Jafferlot & Verniers, 2020). This paper studies and compares the use of Twitter and Facebook for political campaigning by two national political parties BJP and INC during 2019 Lok Sabha elections.

METHODOLOGY

This paper is based on primary and secondary data. Primary data includes data directly taken from social media, and secondary data includes books, research articles and online newspapers.

BJP's Social Media Campaigns

Narendra Modi on Twitter

The Indian prime minister, Narendra Modi, is the most followed politician in India. Modi joined Twitter in 2009 when he was the chief minister of Gujarat. As of September 2022, he has 82.2 million followers on Twitter followed by @PMOIndia which has 50.4 million Twitter followers. Modi has mastered the art of social media communication. In the Lok Sabha election of 2019, he was quite dominant on Twitter. In 2019 Modi had over 45 million followers on Twitter the most followed politician after Donald Trump. Modi made the effective use of Twitter during 2019 elections. He mostly relied on social media as he knew that mainstream media had portrayed him unfairly after 2002 Gujarat riots which happened during his tenure. During elections, Modi launched "Mai Bhi Chowkidar" campaign on Twitter after Rahul Gandhi had launched "Chowkidar Chor Hai" campaign. Modi's "Mai Bhi Chowkidar" campaign responded to Rahul's "Chowkidar Chor Hai" campaign. Modi even changed his Twitter profile name to "Chowkidar Narendra Modi" and other senior BJP leaders followed suit such as Amit Shah, Piyush Goyal and others (Economic Times, 2019). The party used the same strategy against the Congress leader Rahul Gandhi as it did in the 2014 election against Mani Shankar Aiyar's 'Chai wala' remark. The Narendra Modi made an effort to make this election campaign more exciting and engaging. He tweeted "Your Chowkidar is standing firm and serving the

nation. But I am not alone. Everyone who is fighting corruption, dirt, social evils is Chowkidar. Everyone working hard for the progress of India is a Chowkidar. Today every Indian is saying #Mai Bhi Chowkidar". The Twitter campaign with the hashtag #MaiBhiChowkidar struck a chord with users, leading to the campaign's popularity and making it more successful than Rahul Gandhi's "Chowkidar Chor Hai Campaign." As a comparison, the 'Chowkidar Chor Hai' campaign garnered only 1 lac 63 thousand mentions on Twitter, while Modi's 'Mai Bhi Chowkidar' received 1.5 million mentions on Twitter (Rampal,2019).

The tweets of Modi were analysed and it was found that he mostly mentioned BJP in his tweets. He mentioned about BJP rallies and events around 41% in his tweets while 17% of his tweets were about criticising opposition mainly Congress. He also took on nationalism, 13% of his tweets were about nationalism. Overall, Modi's tweets revolved mainly around nationalism, culture, opposition and political alliances. Whereas the tweets related to development were quite less it was only 3%. Interestingly, between April 11 to May 19, the tweets related to national security were mostly mentioned on Twitter. The official Twitter account of BJP, NDA and Modi were mentioned 53% times during 2019 Lok Sabha election. And around 396 million tweets were tweeted about 2019 Lok Sabha elections between January 1 to May 23 2019.

BJP Made Effective Use of Its Official Twitter Handle during the 2019 Election

BJP's official twitter handle BJP4India had tweeted more than 150 times each day and eight of the ten twitter accounts that tweeted the most during elections belonged to BJP (Pal & Panda,2019). BJP also dominated the hashtags, though the hashtags have a limited lifespan, but they are important in affecting the public discourse. This discourse was dominated by BJP as the party has the largest number of hashtags in 16 states. The most trending hashtag during election was #TNWelcomes Modi. Notable is the fact that the BJP and its leaders dominated Twitter, with 228 of the 500 most followed politicians being BJP members (Pal & Panda,2019).

#Mera Parivar Bhajapa Parivar

This campaign, "Mera Parivar Bhajapa Parivar" was launched in the Indian state of Karnataka by party activists who were tasked with going door-to-door in rural areas to educate residents on the policies and accomplishments of the BJP government. About fifty million BJP members were asked to hoist the party's flag at their residences. This campaign was pushed through the official Twitter account of the party and other social media sites. The official Twitter handle of BJP @BJP4India tweeted, "Mera Parivar Bhajapa Parivar' a nation-wide campaign, 5 crore BJP workers and well-wishers across the country will put up BJP's flag and stickers at their homes. We urge you to show your support to this campaign. Share your moments with us using #MeraParivarBhajapa Parivar".

#Bjpkamaljyoti

This campaign consisted of party members going door-to-door and lighting lamps in the homes of all government beneficiaries. This campaign was promoted on social media platforms. In February, 2019, BJP4India tweeted, "Shri @Amit Shah launches Kamal Jyoti Sankalp Abhiyan from Saidpur in Ghazipur, Uttar Pradesh #BJPKamalJyoti".

Campaign 360

During the 2014 Lok Sabha election, the BJP launched a campaign named 272 plus in which supporters may volunteer to assist the party reach the desired 272 milestones. The BJP's campaign plan 272+ was successful, as the party gained 282 seats. Similarly, in the 2019 election. Similarly, in the 2019 election, a man named Vijay, with over 73,000 Twitter followers, initiated a volunteer campaign to assist the BJP in attaining 360+ seats. He also created a website mission360.plus to bolster the effectiveness of this campaign. Vijay has described this initiative as "#Mission360+ is a volunteer drive effort to bring supporters of BJP and Narendra Modi to achieve the goal of 360 plus seats in 2019 Lok Sabha elections". This mission would be made possible through volunteers willing to devote their time and efforts.

#Modi Hai Toh Mumkin Hai

Narendra Modi coined #ModiHaiTohMumkinHai (It is possible if Modi is there) slogan during 2019 Lok Sabha elections. In a rally, Modi said people trust the BJP government because it has done tremendous work in the last four years. The BJP used Twitter and other social media networks to unveil its slogan "Modi Hai Toh Mumkin Hai" as part of its push for a second term. During one of his speeches in Rajasthan, Narendra Modi assured the crowd that "Modi Hai Toh Mumkin Hai". At that moment, Congress came out with the counter slogan #Namumkin Ab Mumkin Hai" targeting Modi over Rafale scam.

Abki Baar 400 Ke Paar

Abki Baar 400 Ke Paar (This time over 400). This was a new campaign slogan coined by BJP to secure more than 400 Lok Sabha seats in 2019 election. The party had previously coined the slogan "Ab Ki Baar Modi Sarkar"(This time it is Modi's government) in 2014 to entice the people to come closer to BJP. The party's efforts proved successful as the party was able to win 282 seats with the full majority for the first time since 1984. The "Abki Baar 400 Ke Paar" campaign sought to win the BJP over 400 Lok Sabha seats in the 2019 election. One of the BJP MP Anurag Thakur commented that "Given the manner the Modi government has performed over the previous 4.5 years; the people of India want to see Narendra Modi re-elected as Prime Minister. The BJP will win around 400 Lok Sabha seats this time." (BJP's New War Cry: Abki Baar 400 Ke Paar, 2019).

But when the final votes were tallied, the BJP obtained 303 seats; when combined with its coalition NDA, it received 353 seats. However, BJP had quite effectively used campaigns that mostly resonated with the general people.

BJP on Facebook

During the 2019 elections, BJP's official Facebook page had 15.8 million followers, the highest than any other party (Samosa,2019). The Facebook page introduces itself as "Bharatiya Janata Party founded in 1980, is the world's largest political party. It currently leads National Democratic Alliance, which is governing India". As of October 2022, the party has 16 million followers on its official Facebook page Bharatiya Janata Party. The party employed Facebook during the 2019 Lok Sabha elections for the following reasons:

- The party conducted online campaigns to engage and persuade the voters to vote for BJP.
- The party utilised the Facebook to create its brand.
- BJP created region-specific Facebook pages targeted at voters in different regions of India.

Non-Official Pro-BJP Facebook Pages and Groups**My First Vote for Modi**

"My First Vote For Modi" is a non-official Facebook group which belongs to BJP. This initiative was created to mobilize young voters to vote for Narendra Modi. It was carried out following the defeat of the BJP in Rajasthan, Madhya Pradesh, and Chhattisgarh. The purpose of this campaign was to instil new energy and morale in BJP workers. The Facebook page "My First Vote For Modi" introduces and describes itself as follows: "A nation's success story is written when its awakened youth hold the pen. My First Vote For Modi is a pan India platform to engage and mobilise the youth to contribute in PM Modi's vision for New India".

"We Support Narendra Modi"

According to Shivam Shankar Singh (2019), it is a non-official BJP-supporting group on Facebook. In 2018, the group's cover picture included Modi, the BJP emblem Shiv Ling, and the Hindu lord Ram. The graphic read, "Save Hinduism-Save India NAMO for PM 2019," and the group's members believed that the BJP was the only party capable of protecting Hinduism from its perceived danger. There are comments in the group's comment section that read "Jai Shree Ram." The posts portray the BJP as the saviour of Hinduism.

“Bharat Ki Mann Ki Baat”

This page was launched on January 27, 2019. This page has over 3 lac followers in 2019. In Hindi the page describes itself “मोदीजी तक अपने सुझाव एवं विचार पहुंचाने के लिए हमारी वेबसाइट पर जाएं” which means 'To send your suggestions and ideas to Modiji, visit our website -. This page has also provided a contact number and a website, namely 'bharatkimannkibaat.com'. Since its inception, the page has continuously posted content favouring BJP.

“Narendra Modi”

This is a political Facebook group created in 2007 which has the highest number of members than any other political Facebook group in the country. As of September 20, 2022, the group has over 1.2 million members. This group continuously posted content in favour of BJP during the 2019 Lok Sabha elections. Similarly, the content of the messages in the group is centred on Modi, the BJP, and attacking members of the opposition.

“Nation with NaMo”

"Nation with NaMo" is a Facebook page that advocates the BJP. In 2013, the page was first titled "Indiandag" before being renamed "Citizens For Accountable Governance." In 2018, the page's name was changed once again to "Nation With NaMo." The page has 1.4 million likes and 1.7 million followers as of March 2022. The page was posting pro-BJP content during 2019 Lok Sabha elections.

Several other non-official pro-BJP Facebook groups and pages persistently post pro-BJP content. Some of them include “Modi 11”, “Narendra Modi Mission 2024”, “I Support Narendra Modi, Yogi Ji & RSS” etc.

Congress on Twitter

As of 2019, Congress (@INCIndia) had 5.1 million Twitter followers on its official account (Samosa, 2019). Congress has been using Twitter officially since January 2013, and as of October 2022, it has 8.8 million followers on Twitter. It was through Twitter that the party began to compete online against the BJP. In 2019, Rahul Gandhi began using Twitter to communicate his ideas and objectives to his supporters. Twitter is recognised as a vital tool for developing political influence and building politicians' brands and reputations (Sen, 2019). As a part of its campaign promotion and to counter the BJP, Congress used Twitter to promote its campaign. To respond to the BJP's election campaign on Twitter, Congress and its leaders have conducted several campaigns against the party.

“Chowkidar Chor Hai” (The Watchman is a Thief) Rahul Gandhi, president of the Congress party, used this phrase to criticise Prime Minister Narendra Modi and his administration over the alleged Rafale scam. Rahul Gandhi intended to tarnish the public image of Modi so that people would not support him and his party. Rahul attempted to depict him as a national thief rather than a steward of public funds. But Rahul Gandhi's "Chowkidar Chor Hai" campaign did not resonate well with the people and eventually it failed. On the contrary, Modi's "Mai Bhi Chowkidar" was welcomed and appreciated by the people. Besides the Congress supporters created various hashtags such as #BJPKiHitlerShahi, #420ABVP, #Mera_PM_Chor_Hai, #ModiRafaleLiesExposed to target the BJP on Twitter. The impact of these hashtags on the people was unknown.

Congress on Facebook

In the 2019 election, the Indian National Congress had 5.3 million followers on its official Facebook page. Currently, as of October 2022, the party has 6.3 million followers. The Indian National Congress showed an active presence on Facebook during the 2019 elections for the following reasons:

- The party conducted online election campaigns to persuade the voters to vote for Congress.

- The party used Facebook to point out the weaknesses and misgovernance of the BJP government.
- The party attempted to forge ties between its followers and its leaders.

Some Official Congress Facebook Pages

There are several regional verified and official Facebook pages of Congress which continuously post pro-Congress content. These pages were also active during 2019 Lok Sabha elections.

“Youth Congress Central U.P.”

This page was created on December 16, 2017 and as of June 2022, it had 126 thousand followers. This page describes itself as "Youth for Change". This page was quite active during 2019 Lok Sabha and posted content in favour of Congress.

“Indian Youth Congress”

This page was created on November 25, 2009, with over 2.3 million followers as of June 2022. During the 2019 elections, this page posted pro-Congress content.

"Gujarat Pradesh Mahila Congress"

This page was created in February 2010, has 5.7k followers, and posts pro-Congress content on a regular basis.

"Indian National Congress Assam"

This is an official page of the Congress that was launched in the state of Assam in 2013 and as of June 2022, it has 130 thousand followers. This region-specific page also showed active presence during 2019 elections.

“Haryana Youth Congress”

This is another Facebook page which was launched in 2015, and as of June 2022, it has 178 thousand followers. This page posted pro-Congress content during 2019 Lok Sabha elections.

In 2019, there were many unofficial Facebook groups that were active, and several of those groups are still active today. The following is a list of some of the unofficial Congress-related Facebook groups:

The Indian National Congress "Students Forum"

This group was created on March 31, 2013. The group has 54 thousand members as of May 2022. The purpose of this group is to assist the youth in understanding politics and motivating them to support Congress. During 2019 elections, this group was quite active in disseminating pro-Congress content.

Indian National Congress Rahul Gandhi

This is another political Facebook group created on September 13, 2017. At the time of writing, this group has about one lakh and 18 thousand members and is located in Chandni Chowk, New Delhi. The group is dedicated to Rahul Gandhi and the Congress party. This group used to post content in favour of Congress during 2019 Lok Sabha elections.

"My Blood Congress"

This is a Facebook group that has been created in 2018 and currently has over 104k members. The group used to post images, pictures, videos, graphics in favour of Congress during 2019 elections in India.

CONCLUSION

Social media have become ubiquitous communication tools for politicians during election campaigns in India. During elections, it has enabled political candidates to connect with voters meaningfully. It was evident during the 2019 Lok Sabha election that politicians used a wide range of social media platforms to engage with voters and to reach out to them. The BJP and

INC used social media to influence voters to vote for them during the elections. However, the adept use of social media by the BJP gave the party an advantage over its opponent Congress during elections.

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9. <https://www.facebook.com/indianyouthcongress>
10. <https://www.facebook.com/GujaratPradeshYouthCongressOfficial/about>
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SOCIO-ECONOMIC STATUS OF SIRIPANI GAI DEORI VILLAGE, DHEMAJI DISTRICT, ASSAM: A CASE STUDY

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ABSTRACT

The concept of socio-economy encompasses a broad idea in its contents modified from time to time and developed dynamically through time. With the change in economic status and mechanism, social contents also change. The socio-economic study brings into light the changes from the macro to micro-level of society. A study on the socio-economic status process and pattern of development is therefore very much important to understand any area and a group of people. It provides an insight into the level of living of a study is an important prerequisite to formulating effective, strategies for development, and improving the quality of human life. To this end, we have taken a model study on the Siripani Gai Deori people that reside in Sissibargaon Subdivision, Dhemaji District, Assam. The study reveals that all the traditional practices are changed from time to time due to the influence of modernization of the societies but at a very slow pace in the case of Gai Deori Village. The chang houses are changing to pucca houses as a result of economical up-gradation. Through the increase of modern education, people are slowly diverted toward non-traditional works. The overall socio-cultural changes have been identified in the Deori communities at present.

Keywords: change, dynamic, modern, socio-economic, status, traditional, etc.

INTRODUCTION

The people of the Gai Deori village are mostly engaged in cultivation. The reason for the continuance of the practice is linked with ecological, socio-economic, and cultural factors including lack of communication leading to physiographic remoteness and isolation. Continuation of this primitive labor-intensive form of agriculture with low productivity. The low level of economic and technological development in the region makes it distinguishable from other parts of the country. Because of the above problems inherent, an in-depth research is, therefore, highly essential to arrive at a logical decision about the socio-economic life of the Gai Deori Gaon.

OBJECTIVES

The main objectives of the study area are:

- (1) To find out the socio-economic life of the people of the surveyed village facing the transformation coming into contact with modern life.
- (ii) To analyze the Socio-cultural life of the people
- (m) To analyze various problems associated with the people

METHODOLOGY

The study observes a certain methodology. First, the proposal with objectives is prepared. This is done through intensive library work and discussion with the people of the Deori community. Then intensive, documents are collected from different secondary and tertiary sources. A socio-economic household survey through Questionnaires is done among the people of Gai Deori village. For spatial analysis of the socio-economic condition of people, secondary data and information relevant to the topic has been collected from the head of the village (Gaon Budha) and Mauzadar.

RESULT AND DISCUSSION

PHYSIOGRAPHIC BACKGROUND OF THE STUDY AREA

The total geographical area of Siripani Gai Deori village is 83.15 hectares, It is one of the most remote villages of India, in the easternmost part of Assam. Situated in the foothills of the lower Himalayas it is relatively a very small village being in a confluence of rivers with the mighty Brahmaputra River flanking the village and its tributary Gainodi River running near the village, the region is perennially affected by floods.

The village is located at 27.48°N 94.58°E. It has an average elevation of 91 meters. The village is located to the north of the river Brahmaputra. To its north lies the Arunachal Himalayas. To its east lies the state, Arunachal Pradesh, and to the west is Lakhimpur, a district of Assam. Cipriani Deori village is located in the Sissibargaon subdivision of the Dhemaji district in Assam, India. It is situated 20km away from sub-district headquarters Sissibargaon (tehsildar office) and 22km away from district headquarter Dhemaji.

CLIMATE

As the major part of the Study, the Area is located near the foothills of Arunachal Pradesh, it exhibits a difference in temperature, rainfall, fog, wind, etc. The climate of the Gai Deori village is Pre-humid characterized by high rainfall, mild summer and winter and falls under the cool to warm pre-humid thermic-agro ecological sub zone. The annual rainfall of Gai Deori village ranges from 260cm to 320cm. Rainfall generally begins in April and continues till the end of September. The rainfall generally increases from southeast to northeast. July is the rainiest month. On average there are about 200 days with 3.5mm or more rain in a year. The relative humidity varies from 90 to 73 percent. The temperature varies between 39.9°C in summer and 5.9°C in winter.

VEGETATION

The growth of natural vegetation in any region depends upon the interaction of this region of represents tropical monsoon vegetation with slight variation due to environmental influence. The high rainfall accompanied by humidity and temperature is favorable for the growth of tropical or monsoon vegetation. The various types of vegetation in the region may be classified in the following manner.

(1) The Assam tropical evergreen type Hollany, Makai, Amari, Mango, Nahar, Khoir. Bhomora, Gamovi, tita chapa, and different species to Bamboos, etc.

(11) The mixed evergreen and deciduous types include Bonsom, Sisso, Simul, etc.

(1II) The Savannah type-Ekra, Khaghor, Nal etc

SOIL

The soil of the village is broadly classified into three groups, namely new alluvial, old alluvial, and red loams. The new alluvial soil is found in the flood plains areas subjected to occasional floods and consequently receives annual slit deposits when the flood recedes. The old alluvial soil is developed at a higher level and is not subjected to flooding. Red loamy soils are formed on hills slopes under high rainfall conditions.

DRAINAGE SYSTEM

The Gai Deori village is situated on the north bank of the river Brahmaputra, the Dhemaji district, and Dhakuakhana civil sub-division is bounded by the Brahmaputra River in the south and Subansiri River in the west. In addition, several tributaries from the north join the Brahmaputra in the region one after another. Especially after the great earthquake of 1950, This region covers one of the heaviest rainfall areas in Assam which these areas experience regular annual floods, which left the entire riverine system of the areas severally disturbed. From May

to September with the onset of southeast monsoon rains, a huge volume of flood water starts spilling all along the 720 km. length of embankments of the rivers the Brahmaputra in Assam. After the survey, we know that there is only a river called the Gainodi River.

SOCIO-CULTURAL STATUS:

Past History

In the early days, people used to live on the other side of the Gainodi River where usually flood disaster occurs. Due to this, nearly 30 years ago, few people left that side and migrated to either side of the river where chances of floods are low. Gradually the remaining people also shifted to the same side and settled there.

Population Structure

Siripani Deori village has a total population of 326 people, out of which the male population is 171 while the female population is 155. There are about 60 houses Siripani Deori village which we have surveyed.

House Type and Settlement

According to our survey in Gai Deori village of Dhemaji district, we have found that the village is having a percentage of Pucca house type with 53% in comparison to the Kuccha house type which is 47%. The houses are arranged on either side of the road and from the linear pattern of settlement.

Literacy and Educational Structure

The literacy rate of siripani deori village is 78.83% out of which 84.80% of males and 72.26% of females are literate.

According to our survey in Gai Deori village of Dhemaji district, we have found that (table-1)the village is having a good percentage of education. The area is having maximum % of graduate persons and a minimum % of Technical courses, higher secondary 24%, ME 5%, and HS.CL 26% respectively

TABLE-1: SIRIPANI GAI DEORI VILLAGE DHEMAJI DISTRICT, ASSAM EDUCATIONAL STRUCTURE

Primary	M.E	H.S.L.C	H.S	Technical	Graduate
16%	5%	26%	24%	2%	27%

Source: Sample Survey, 2022

AGRICULTURAL PRODUCTION

Production of Rice

Gai Deori village of Dhemaji District we have found that the village is having a high rice production. From the total rice production, the villagers are having 53% sufficient production, and 27% surplus production and the villagers have to face 20% deficit production annually (table-2).

TABLE-2: SIRIPANI GAI DEORI VILLAGE DHEMAJI DISTRICT, ASSAM

Production of Rice		
Sufficient	Surplus	Deficit
53%	27%	20%

Source: Sample Survey, 2022

SOCIO-CULTURAL STATUS

Past History

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Table-3 Siripani Gai Deori Village Dhemaji District, Assam Toilet Facility

Kuccha	Pucca	Nil
30%	63%	7%

Source: Sample Survey, 2022

Internal Road Structure

In Gai Deori village in the Dhemaji district, the internal road structures are good. Most of the road is Pucca followed by Kuccha. Only a few main roads are graveled.

Availability of Health Services:

In Gai Deori village of Dhemaji district, we have found the availability of health care facilities nearby. There is a hospital in the nearby town.

ECONOMIC ASPECTS

Income Source

Agriculture is the primary occupation of the Deories in the surveyed villages. However, as a result of modern education and other opportunities, the occupational structure of the people is changing gradually. Now few the Deori individuals are engaged in non-agricultural occupations such as Government service, part-time jobs, business, and contracts. The following table no - 4 indicates the occupation of the respondent. According to our survey of 60 households, the area is near to Brahmaputra River which promotes high agricultural production due to the presents of fertile alluvial soil.

Occupational Pattern

In Gai Doorri village of Dhemaji district, we have found that the majority of the people are engaged in agriculture, which is 49% and the rest are engaged in other occupations 21% are engaged in service. 16% are in business, 7% in wage labour and 7% are engaged in animal husbandry. Even though the percentage of occupation of the respondents other than agriculture is small, it signifies the gradual transformation of the people.

Table-4 Siripani Gai Deori Village Dhemaji District, Assam Occupational Pattern

Agriculture	Service	Bussiness	Wage Labour	Animal Husbandary
49 %	21 %	16 %	7 %	7 %

Source – Sample Survey, 2022

The following table shows the annual income of the respondents

Table-5: SIRIPANI GAI DEORI VILLAGE DHEMAJI DISTRICT, ASSAM
Annual Income Pattern

Income group (In Rs.)	Total (fi)	%	Mid value (xi)	fi.xi	Mean = $\frac{\sum fi.xi}{\sum fi}$
Up to 40,000	3	6.7	35,000.5	105,002	$\sum fi.xi$
40,001-50,000	4	6.7	45,000.5	180,002	4210,03260
50,001-60,000	7	11.7	55,000.5	385,004	= 70,167.2
60,001-70,000	8	13.3	65,000.5	520,004	
70,001-80,000	21	35	75,000.5	1575011	
Above-80,000	17	26.6	85,000.5	1445009	
Total	60	100.00		4210,032	

Source: Sample Survey, 2022

Mean = $\frac{fi.xi}{fi}$, where, fi = frequency, xi = mid value

The above table - 5 shows that the mean annual income of the respondent is Rs. 70,000.

The average total income of the individual families from all sources is estimated at rupees 6000 per month against the monthly expenditure of Rs. 4000 to Rs. 7000 per family depending upon vagaries of nature and contingencies such as sickness, ritual functions, etc. the major regular items of expenditure are given in the following table no -6

TABLE-6: SIRIPANI GAI DEORI VILLAGE DHEMAJI DISTRICT, ASSAM
Expenditure Pattern of Families

Expenditure Lists	Expenditure (Rs.)
Ritual Function	1000.00
Fooding	4000.00
Medical Treatment	400.00
Education	350.00
Cloths	600.00
Miscellaneous	500.00
	6850.00

Source: Sample Survey, 2022

From the above table-7, it appears that the highest amount of expenditure is incurred in connection with religious functions. There is practically no expenditure on the improvement of agriculture which could be considered an investment. Selling and purchasing land is also very rare in the village. Because land is not an acute problem for the families in the village. The idea of saving for capital accumulation for investment purposes is yet to develop among the maximum number of Deories families.

SOCIAL ASPECTS

Dress and Ornaments

The Deori community has its century-long ornamentation and at present time there are nourishing it, using it with sincere devotion. A Deori male uses a loin cloth called IKHOON while they stay at home and the IKHOON is usually combined with a shirt or sporting. While

going out of their home or village they generally use trousers and a shirt. They prefer white cloth and use a necklace while they take part in traditional social functions.

The Deori women wrap up a kind of skirt that hangs loosely down wrapping tightly the breast along with a sheet called JOKACHHIBA which is enclosed in the waist. Particular Deori women, use a towel to cover their heads which are known as GATHUKI. It is a unique dress code of the Deori women they are wrapping various ranges of customary ornament. They wear a ring called GEMA and use bangles called UCHOON on their wrist. Some of the ornaments the Deori women use while performing Bihu are LEE, KOTU, MADOLI, JOONBIN, DUGDUGI, etc.

Marriage System

Like the other communities of Assam, marriage is an indispensable part of the Deori society. For a Deori young boy marriage is indispensable. The boys are married within the age of between 21-26 years, while the marriage age for girls is 18-22 years. Clan exogamy strictly follows in the case of the marriage system. If anyone violates this social perception, he will be punished by the priestly council of the village. Monogamy is the general rule and the second wife is taken after the death of the first wife. When a girl is married she lives to her husband's family. The children take their father's clan name. Thus, the younger brother of the deceased does not marry the wife of the elder brother after the death of the husband. One does not marry the younger sister of the wife. The essential items of a Deori marriage constitute are fish, pork, betel leaves, and nuts. The mediator plays an important role in a Deori marriage. Both the families that are families of the bride and groom appoint PATHORIES. On the marriage occasion, he wears a special dress and helps in the settlement of the bride price and other details of the marriage. He must be the man who is proficient in local folk-lore and other marriage formalities. There are many local marriage songs sung in the Deori marriage. Marriage is a very important social institution in Deori society. Every Deori society has developed a pattern for guiding all marriages.

Family System

According to our survey in Gai Deori village of Dhemaji district, we have found that most of the villagers are having Joint family system in their family, where the father is the head of the family members.

Religious Life

All the three sections of the Deoris Viz-DIBANGIA, BORGOYAN, and TENGAPANIA are still maintaining their traditional beliefs and practices. The common place of worship among the BORGOYAN and DIBANGIAS call it "MIDIKU". The entire section worships Lord Shiva and Parvati as chief Deities. The DIBANGAS call this supreme Deity "KUNDI MAMA". 'Kundil', is identified as Lord Shiva and "Mama" as "Parvati" of Hindu pantheon. Another name of this chief Deity is GIRA GIRACHI. PISA DEMA or BALIA BABA and PISASI DEMA or KESAIKATI, the son and the daughter of GIRA GIRACHI are two important Deities of the Deori. They also worship 'GAILURUNG KUNDI' as "GANESH AND KUNWAR KUNDI" as KARTIK.

Besides the major Deities, the Deori have a good number of household Deities. They believe that if these Deities are worshipped regularly then peace and plenty will prevail upon the household. Some of the important household Deities are "BAKANMAK", "MIRUCHI", "KIN", "DHA", "BURA DANGARIA", "MORA", etc. From the name of the household deities like 'BURA DANGURIA', 'GHURURDEO', etc. the influence of non-Deori Hindus may be traced.

The sacrifice of animals and fowls, PIGUN'S from an important Deori puja. The presence of BORDEORI or BADEORI is essential in the pujas. Rice beer is not offered to the Deities but consumption of rice beer after the puja is not forbidden. Wednesday is the most auspicious day for worship and pujas are performed either on Wednesday or Sunday.

Some of the Hindu rituals like Saraswati puja, Durga puja, etc. have cooperated recently into the religious structure of the Deori's

LANGUAGE AND KINSHIP

Deori Sino-Tibetan language is spoken by the Deori people of Assam and Arunachal Pradesh. Only one clan of the Deori tribe, the DIBONGYS has maintained the language, the others having shifted to Assamese, but among the DIBONGYA "it is vigorous, it is related to the Bodo-Garo languages. It was earlier known as the Deori Chutia language, was spoken by the entire Chutia tribe, and was the original language of upper Assam According to PRT Gurdon (1903), the Deori-Chutia language is very similar to the Moran dialect of Assamese and it can well be stated that the MARAW language was nothing but a traditional language between Deori and Assamese language for the Chutias, Morans, and a section of Deoris (TENGAPANIA & BORGOYA). The Deori language is one of the most influential languages which have helped develop the Assamese language in upper Assam. In the early centuries, the Deori language mixed with Prakrit to give rise to a Lingua, Franca which later formed the Assamese language.

TRANSPORT AND COMMUNICATION

The transportation of the village is good as the NH-52 highway goes through the village. The villagers can travel easily from the village to the towns. And also NH-52 helps to connect to other towns and places. The recently opened Bogibil Bridge helps to connect via road to Dibrugarh easily and in a faster way which helps medical patients with their treatment. Earlier people used to travel via boats.

The communication in the village is not good, the signal of a mobile network is poor which creates difficulties for communications with the rest, because of situating far from the town areas. And there is no postal service or any other communication service as the village is very small in size.

Problems and Prospects

Gai Deori village is situated near the Gainodi River in the Dhemaji district. Gai Deori village is a small village and it has many problems and prospects. They are as follows:

- (i) The entire Dhemaji district suffers from severe floods every year and Gai Deori the village suffers too as it is situated near Gainodi River.
- (ii) Agricultural production is not good as it should be because the soil of the village is alluvial and situated near the Gainodi river due to the lack of government facilities for the farmers.
- (iii) The Deories are primarily agriculturists. Though agriculture is the principal means of support, among the Deories it is still mainly at the subsistence level with the traditional system.
- (iv) As informed by the respondents the families of the villages never tried to boast about their paddy production to earn a higher amount of cash income by selling paddy at the rising price.
- (v) The annual income of some families in the village is not so good as our data shows that some families earn only 10,000 to 20,000 thousand annually. Close observation of the income and expenditure pattern reveals that items of expenditure of the families are gradually expanding without any corresponding increase in income.
- (vi) The population of the Deoris is reducing in number become a retreating migration. Their tribal economy is found less protective than they feel in Assam.

Thus, it has many problems but it has also some prospects.

The Prospects are As Follows

- (i) Agricultural land has fertile alluvial soils which support agriculture. The area is near to Brahmaputra River which promotes agriculture

- (ii) NH-52 is going through this village which can promote the transportation sector.
- (iii) The villagers can practice animal husbandry and cattle rearing along with agriculture which helps them to increase their annual income.

CONCLUSIONS AND RECOMMENDATIONS:

After the field survey of the Gai Deori village, we can say that with the help of collected data, the people of the village have an average life. Rice cultivation is the primary occupation and rice production is sufficient for the majority of people. It is the main source to earn their livelihood. The medical facilities are available nearby and also educational structure and transportation are not bad. Although the entire region is affected by floods every year which affects the cultivation too. On the whole, this study may provide some new basis for a line of action to implement the economic upliftment of effective and far-reaching preventive measures of raising the economy of the people of Gai Deori village. Education should be related to the production process. It must be connected with handicrafts, small-scale industries, factories, and workshops. Thus proper education can bring more income as well as prosperity to the tribal people. There is a need for optimum land use planning and adopting a suitable cropping pattern which is most urgent today for the improved social, cultural, and economic condition of any community. The problem of non-availability of data regarding different dimensions has to be removed and a separate census of this community should be directed in this direction.

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STRING BETWEEN GDP, EXCHANGE RATE AND STOCK RETURN: EVIDENCE FROM GRANGER CAUSALITY & JOHANSEN CO-INTEGRATION APPROACH

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ABSTRACT

As we know, GDP and exchange rate is an indicator of growth of an economy and strength of currency with respect to others and exchange rate and GDP are playing prominent role in influencing the behaviour of stock market. In this study we have examined the causality between exchange rate and GDP with stock return and Co-integration between macroeconomic variables and Indian stock market. We have used 42 years annual data of GDP, exchange rate and stock return and applied ADF test for checking Stationarity, Correlogram for serial correlation, Johansen Co-integration for association and Granger causality test for examine multiple causal relation by controlling the effects of other variables, then Impulse Response Function used for checking the responsiveness of a time series to unexpected shocks in other time series. The study examined that exchange rate significantly granger causes the stock return and long run co-integration found to be significant in amongst the selected variables.

Keywords: Impulse Response Function, Stationarity, Granger Causality, and Variance Decomposition Analysis.

• INTRODUCTION

As stock market is working since over a decades in the country and it has participated prominent role in the growth of the economy directly or indirectly. From last few years, national as international investors and researchers have taken more emphasis on emerging financial market, especially in Asian countries markets. Stock market provides attractive investment opportunity to the investors. Since last one decade Indian stock markets are providing more attractive opportunities to the investors and this market is growing sharply during the period. So it has become very much profitable and attractive market for the investors. As we know, after globalisation Indian economy has been open for rest of the world. By this, international investors can invest in Indian stock market without extra restriction as it was earlier. By applying granger causality, variance decomposition and impulse response function, the author depicted stock market leads to economic activities except exchange rate. Exchange rate leads to stock price (Ahmed, 2008). A study confirmed that exchange rate and stock prices are bi-directionally related to each other and positively related to each other (Srivastava A. &, 2011). Evidence depicted that growth rate and stock market are equally related to each (Agrawalla, 2007). The macroeconomic factors like IIPs, WPIs, affected more to the stock market than global factors in the long run (Srivastava, 2010).

As previous literatures also worked on the causality and co-integration among the macroeconomic variables and Indian stock market but previous literature consists data for maximum of 12 to 15 years only. Here we have used data for 42 years from 1980 to 2021 to examine the causality and co-integration amongst the variables as well responsiveness of time series to shocks. The first part of the article includes introduction and literature review. Second part consist objective, hypothesis and methodology. Third part of the article depicts models of causality and co-integration test, and then analysis and interpretation have been shown related to unit root test, serial correlation, co-integration, VAR granger causality / Block Exogeneity Wald test. And finally we have presented discussion, managerial implication and conclusion of the study.

• REVIEW OF LITERATURE

A study on the causal relationship between S&P 500 and exchange rate for short period of time has been conducted and by the study, authors depicted that there is bidirectional causality exists between both of these selected variables. On the other hand, co-integration analysis was failing to produce significant long run co-integration between S&P 500 and USD exchange rate (**Sohrabian, 1992**). Nakaet studied long run relationship between BSE stock price and select macroeconomic variables by using monthly data from 1960 to 1995. The study applied VECM to avoid potential misspecification biases. The study observed that five variables are co-integrated and exist long run equilibrium relation among these variables (**Nakaet, 2001**). (Irabian) analyse the dynamic interaction between stock price and select macro economic variables. Under the stock monthly data from 1977 to 1996 have been used to examine the co-integration and granger causality between and among the variables. This study depicted that stock price is influenced by changes in official reserves and exchange rate in short run but there is no co-integration in long run (**Irabian, 1999**). **Bhattacharya and Mukharjee (2006)** empirically analysed the relationship between macroeconomic variables and Indian stock market. Under the study VAR model and non-granger causality technique applied, using data from April 1992 to Mar.2001. Result submitted that there is no causality between exchange rate, money supply, Index of Industrial Production, Gross National Product and Forex reserve and stock return. But inflation rate bi-directionally causes with stock return (**Bhattacharya and Mukharjee , 2006**). Another study examined the relationship between stock return and macroeconomic variables in India by using co-integration and error correction model for the period from April 1992 to Dec. 1997 on monthly basis. The study admitted that long run co-integration does not exist between the stock price and macro economic variables also inferred weak form of causality running from IIPs to stock index (**karnik, 2000**). The author studied the relationship between BSE stock index and three select macroeconomic variables i.e. IIPs, WPIs, Exchange Rate. By using monthly data he has applied unit root, correlation and granger causality to know relationship and granger cause between the variables. Study affirmed there is unit root in stock index, IIPs WPIs and Sensex. On the other hand, unidirectional causality of WPIs exists with Sensex as well as strong correlation in between (**Singh, 2010**). Recent study analysed the relationship between Indian stock market index (BSE Sensex) and select variables namely IIPs, WPIs, Money Supply, and exchange rate. Under the study monthly data have been used from 1999 to 2017 and for the analysis causality, co-integration and VECM has been applied to know the causality and relationship. The results significantly depict that BSE Sensex causes changes in the exchange rate and money supply, FII, gold prices and IIP (**Misra, 2018**). Naik and Padhi analysed the long run relationship between stock index and macroeconomic variables for the period from April 1994 to Jun 2011 by using Johansen co-integration and VECM techniques. The result showed co-integration among the variables while stock price influenced by exchange rate and interest rate insignificantly. IIPs and Money supply are positively related to stock prices (**Pramod Kumar NAIK , Puja PADHI , 2012**). A study examine the causal relationship between macro economic variables and Indian stock index by using different test i.e. unit root test, Ljung –Box Q test and granger causality. The study affirmed there is autocorrelation existing between stock index and macro economic variables. The study depicted bilateral relationship between stock market and macroeconomic variables (**Tripathy, 2011**).

Here we have deeply studied the previous literatures concerned with our study and found that some literatures are confined existence of long run relationship between stock price and select macroeconomic variables. On the other, some studies are saying about non-existence of co integration among the exogenous and endogenous value in long run. With this, we have arrived at a point that there is conflict between the previous result and need to conduct further research using long period data for confirming the relationship between the variables. So we have used very long data for 41 years of select macroeconomic variables for the purpose of study.

• **Objective of the Study:** The main objective of the study –

1. To know the Stationarity in time series variables
2. To find the relationship among GDP, Exchange rate and stock return.
3. To analyse the Co-integration among the macroeconomic variables.
4. To examine the responsiveness of time series variables to their own lagged shocks and shocks of lagged movement of remaining variables.

• **Research Hypothesis:**

H₀₁: There is Stationarity problem in time series.

H₀₂: GDP and Exchange rate do not significantly cause to BSE return.

H₀₃: There is no significant Co-integration among the Variables.

• **RESEARCH METHODOLOGY**

1. **Nature of the Study:** The study is of analytical and Descriptive nature
 2. **Variables Selection:** The yearly data of Exchange Rate, Annual GDP and BSE Sensex return have been used for the period of 42 years.
 3. **Statistical and Econometric Tools:** we have used open access software for the purpose of finding the relation among the variables and applied ADF Unit root test, Correlogram, Johansen Co-integration and Granger Causality and Variance Decomposition Analysis.
 4. **Presentation of Data:** Tabulation, Line & Bar Graph have been used.
 5. **Data Description:** Here, we have used average yearly continuously compounded log return of BSE Sensex as a benchmark of Indian Stock market. Under the study, relative change in GDP and exchange rate data used to confirm Stationarity in data set without making any transformation in data set for proper application of econometric tools in the study.
- **Analysis and interpretation of the study:**

❖ **Table 1-** Descriptive statistics-

Variable	Mean	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	P Value
GDP	-0.000661	0.036990	0.058300	6.296378	18.58615	0.000092
Exchange Rate	5.597132	8.306994	1.338220	6.332432	31.96975	0.000000
BSE Return	0.205896	0.316407	0.289344	2.918577	19.17887	0.000068

Source: Authors own analysis

The above table presents the higher volatility in the time series of the variables and series is leptokurtic because kurtosis value is more than and approximately 3 i.e. the distribution show high probability of return inclining to zero with a high positive and negative return. The statistics of Jarque-Bera show significant that is greater than zero (because of leptokurtic data). So Jarque-Bera depicts all the series are normally distributed.

Table – 2 Correlogram: Auto Correlation and Partial Auto correlation

Lag	AC	PAC	Q-Stat.	Prob.
1	-0.175	-0.175	1.3734	0.241
2	-0.122	-0.157	2.0568	0.358
3	-0.131	0.084	2.8701	0.412
4	0.010	0.034	2.8747	0.579
5	-0.152	-0.123	4.0282	0.545

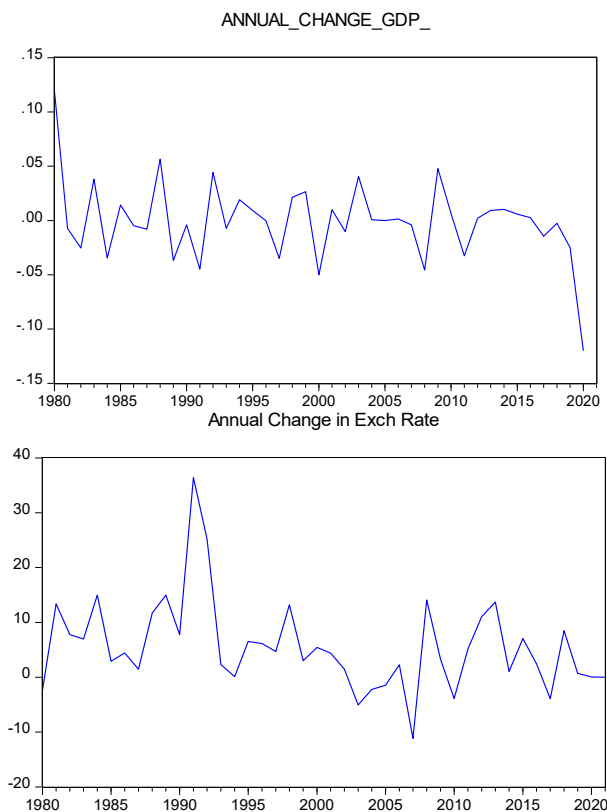
6	0.064	0.007	4.2355	0.645
7	-0.011	-0.037	4.2421	0.752
8	0.000	0.030	4.2421	0.835
9	-0.246	-0.269	7.6309	0.572
10	0.005	-0.113	7.6322	0.665
11	0.033	-0.046	7.6956	0.740
12	0.002	0.033	7.6956	0.808
13	0.026	0.051	7.7384	0.860

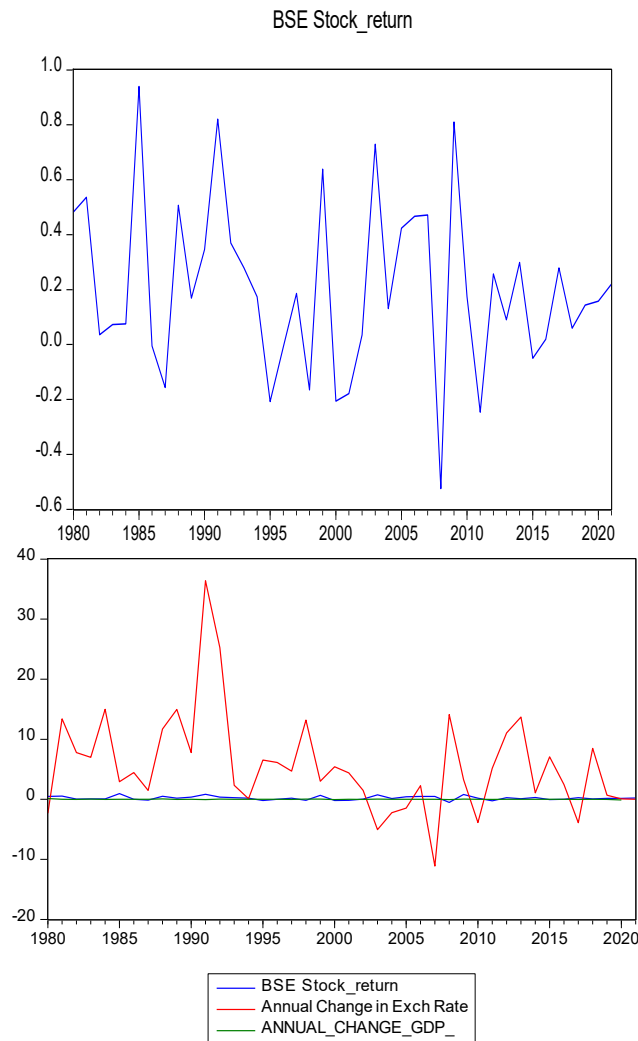
Source: Authors own calculation

The result of Correlogram is showing that almost every lag has significant value which could be seen by Q-statistics that's indicate significant serial correlation and this is rejection of weak form of market efficiency. It affirms existence of autocorrelation of macroeconomic variables and Indian stock market which implies operation of market follows the information rationally.

❖ **Figure 1- Graphical Presentation of Data:**

To analyse the trend of the time series data we have plot the graph of data set during the study period. With the graph, we can say that there is high volatility in the series which indicates for checking Stationarity in data set so that we could further apply the econometric tools for authentic research.





• **Augmented Dickey–Fuller unit root test:** (at level / without Difference)

H₀: Variables have unit root Problem or data is not stationary.

Previous literatures confirmed that most of the financial time series is to be Non-stationary or random walk when the series are in their original form. So we have examined unit root problem in the time series before applying any type of econometric technique in the study. The presence of Non-stationary or random walk in the series may lead to fallacious inferences in the study. Thus, by applying augmented dickey-fuller (ADF) test, we have scrutinize the presence of unit root in the data set/ series. ADF test is to be expressed as:

Table-03 Augmented Dickey–Fuller (ADF) test

Variable	ADF test	Prob.	Null hypothesis	Result
GDP	-7.739291	0.0000	Rejected H ₀	Variable is stationary
Exchange Rate	-4.737280	0.0004	Rejected H ₀	Variable is stationary
BSE Return	-7.524013	0.0000	Rejected H ₀	Variable is stationary

Source: Authors.

Note: A null hypothesis is to be rejected when test statistics > Critical Value

Asymptotic Critical Values*

At Level	1%	5%	10%
Critical Value(C.V)	-3.605593	-2.936942	-2.606857

Result of the ADF test showing that the three variables of time series i.e. log Sensex return, relative GDP and Exchange rate are free from unit root problem or series are stationary because the prob. Value is less than 0.05 which confirms rejection of null hypothesis and now we can further use the data set for further study.

❖ **Table-04: Johansen Co-integration Test:** at Lag Length = 0

H_0 = There is no co-integration among the variables

In the process of examine the Co-integration among the variables the trace statistics test considered by following equation (2):-

RESULT

Variable	H_0	Eigen value	Critical Value	Trace statistic	Critical Value	Prob.**
BSE Stock Return to GDP & Exchange Rate	r = 0	47.62384*	21.13162	93.33649*	29.79707	0.0000
	r = 1	31.03955*	14.26460	45.71264*	15.49471	0.0000
	r = 2	14.67310*	3.841466	14.67310*	3.841466	0.0001

*denotes rejection of the Hypothesis at the 0.05 level

**Mackinnon-Haug-Michelis (1999) p-value

The result of Johansen Co-integration test based on the principle which has been discussed in the literature concerned with Johansen Co-integration (**Johansen 1995**). In accordance with the principle when the value of test statistics is less than the critical value at significance level of 5 %. The null hypothesis of no co-integration among the variable rejected and we can confirm that there is long run association exist among GDP, Exchange Rate and Sensex return as well as Eigen value & trace rank test also supports the co-integration among the variables.

❖ **Table – 05 Granger Causality Test-** At Lag – 2, Observation– 41

As it is all known, this test is one of most important test in the field of time series research,. We can complete one research only with the help of this test significantly. So by this, we can understand how much important this test.

RESULT

Null Hypothesis	F-Statistic	Prob.
Annual Change in Exchange Rate does not Granger Cause Annual Change in GDP	1.12214	0.3373
Annual Change in GDP does not Granger Cause Annual Change in Exchange Rate	0.77320	0.4695
BSE Stock Return does not Granger Cause Annual Change GDP	0.23628	0.7908
Annual Change in GDP does not Granger Cause BSE Stock Return	0.83051	0.4440
BSE Stock Return does not Granger Cause Annual Change in Exchange Rate	0.33158	0.7200
Annual Change in Exchange Rate does not Granger Cause BSE Stock Return	4.01708	0.0269

The table - 05 presented pair wise causality between the variables with log 2 which is appropriate lag order based on Akaike Information Criteria (AIC) for the sample period. Here annual change in GDP, Exchange rate and stock returns are macroeconomic variables that have

been selected for the study. Results are depicting that the null hypothesis of annual change in exchange rate and annual change in GDP does not granger cause to each other has been accepted because F-statistics and P value is greater than 0.05 significance level which confirm there is no causal relation between both of these variables. Further, Hypothesis of BSE stock return and GDP does not granger cause to one another is also accept because of high prob. Value (0.7908 & 0.4440) than 0.05 critical value that is indicating absence of causal relation between BSE stock return and annual change in GDP. And if we will see the causality between exchange rate and BSE return, we can say there is significant causal relation exist between annual change in exchange rate and stock return because p value (0.0269) is less than 0.05 which is significantly rejecting the null hypothesis of annual change in exch. Rate does not granger cause to BSE return. But on the other hand, BSE Sensex return does not granger cause to exchange rate, as we can see in the table where p value (0.7200) is greater than 5% significance level.

Finally we can say that change in exch. Rate leads to BSE Sensex return significantly in long run but annual change in GDP does not do so. Thus we admit that exchange rate is a leading factor for stock return. So at the time of taking decision regarding investment in stocks people should critically examine the changes take placed in exchange rate in long time.

Table – 06 Variance Decomposition

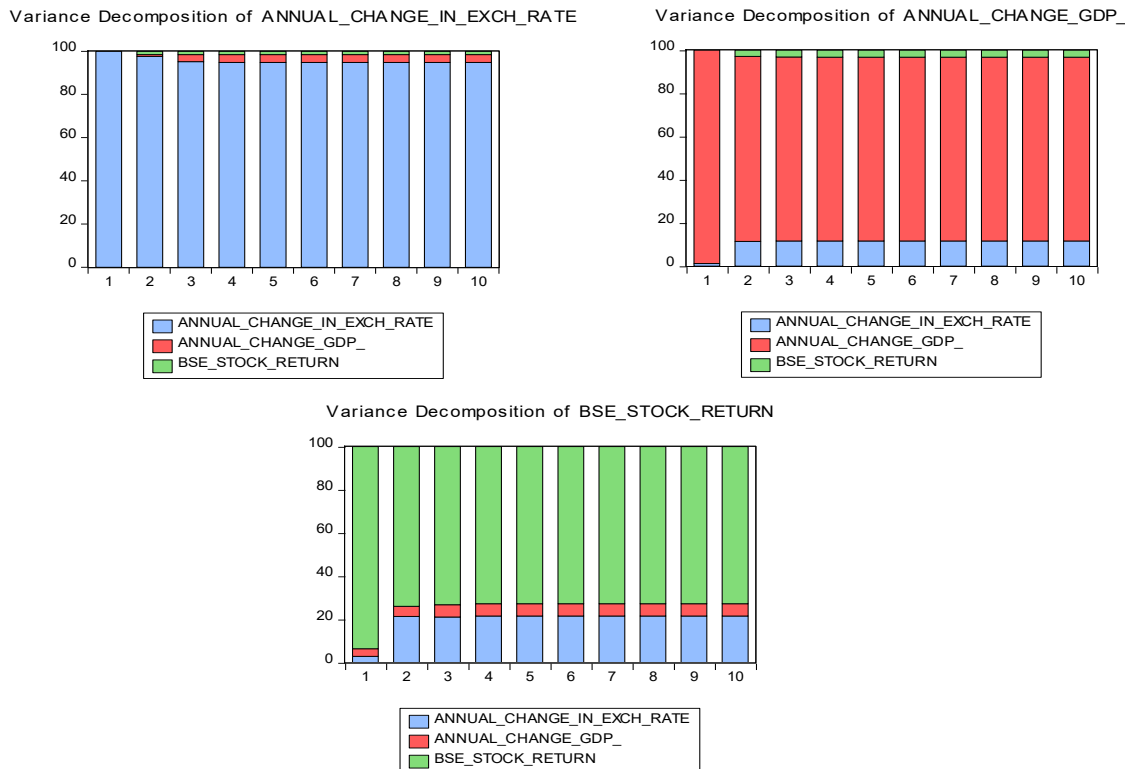
Variance Decomposition of Annual_Change_In_Exch_Rate				
Period	S.E.	ANNUAL_CHANG E_IN_EXCH_RATE	ANNUAL_CH ANGE_GDP_	BSE_STOCK_ RETURN
1	8.454357	100.0000	0.000000	0.000000
2	8.914901	97.58479	0.796539	1.618672
3	9.076320	95.16961	3.260537	1.569850
4	9.096783	94.80722	3.628401	1.564380
5	9.098799	94.79722	3.638828	1.563950
6	9.098951	94.79550	3.640518	1.563981
7	9.098993	94.79473	3.641211	1.564060
8	9.098996	94.79469	3.641254	1.564060
9	9.098997	94.79468	3.641254	1.564061
10	9.098997	94.79468	3.641256	1.564061
Variance Decomposition of ANNUAL_CHANGE_GDP_:				
Period	S.E.	ANNUAL_CHANG E_IN_EXCH_RATE	ANNUAL_CH ANGE_GDP_	BSE_STOCK_RETURN
1	0.033759	1.168292	98.83171	0.000000
2	0.036309	11.42695	85.66895	2.904109
3	0.036406	11.54330	85.21488	3.241827
4	0.036426	11.56184	85.17796	3.260203
5	0.036428	11.56069	85.17426	3.265047
6	0.036429	11.56277	85.17211	3.265121
7	0.036429	11.56315	85.17155	3.265306
8	0.036429	11.56321	85.17148	3.265310
9	0.036429	11.56322	85.17147	3.265314
10	0.036429	11.56322	85.17147	3.265315
Variance Decomposition of BSE_STOCK_RETURN:				

Period	S.E.	ANNUAL_CHANGE_IN_EXCH_RATE	ANNUAL_CHANGE_GDP_	BSE_STOCK_RETURN	R
1	0.297267	2.858329	3.508028	93.63364	
2	0.339792	21.30653	4.688019	74.00545	
3	0.343038	21.09047	5.672621	73.23691	
4	0.344415	21.52293	5.645658	72.83141	
5	0.344458	21.51926	5.664976	72.81577	
6	0.344490	21.52384	5.664878	72.81128	
7	0.344491	21.52420	5.664852	72.81095	
8	0.344492	21.52416	5.664840	72.81100	
9	0.344492	21.52419	5.664838	72.81097	
10	0.344492	21.52419	5.664840	72.81097	
Cholesky Ordering: ANNUAL_CHANGE_IN_EXCH_RATE ANNUAL_CHANGE_GDP_ BSE_STOCK_RETURN					

Source: The author's

Figure: 02 Graph of Variance Decomposition

Variance Decomposition using Cholesky (d.f. adjusted) Factors



Source: The author's

The variance decomposition function provides something different method of analyzing the dynamics of vector auto regression system. Variance decomposition depicts the proportion of change in endogenous variables, due to shocks of their 'own' lag versus lagged shocks of other remaining variables in the system.

By analyzing the above figure 1, we can understand that exchange rate is affected by its own lagged shock rather than other endogenous variables lagged shock and figure 2 shows annual change in GDP is slightly affected by shock of remaining endogenous variables. But Sensex

return is highly affected by the change in exchange rate and slightly affected by shock of lag value of GDP. It means exchange rate change have high impact on Sensex return than change in GDP. This indicated that any change in exchange rate in future would influence the decision of investors and BSE return is so sensitive with respect to exchange rate.

- **CONCLUSION:** The time series data set comprises of 42 observations of relative alter in GDP, Exchange rate and BSE return. Correlogram affirmed the nearness of serial auto correlation of macroeconomic factors with Indian stock market. The study includes Johansen co-integration test to examine long run association among the variables and study affirmed that all selected variables are interrelated to each other. On the other hand, granger causality test exhibits significant causal relationship and it was confirmed that any change in exchange rate affect the stock prices in long run. The analysis of Variance Decomposition depicts that unexpected own lagged shock as well as lagged shock of other variables affects the price of dependent variables. Here exchange rate has high composition to BSE return than GDP. So investors should try to take in consideration at the time of taking investment decision. It also implicates that the rational investors can obtain abnormal return in Indian stock market by using historical data of macroeconomic variables and they would be able to predict the fluctuations in stock prices.

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STUDY OF ARCHAEOLOGICAL REMAINS RECOVERED FROM KASHMIR NEOLITHIC CULTURE: AN OVERVIEW

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ABSTRACT

In the present paper, we have carried out a systematic study of the important archaeological remains recovered from the Neolithic sites in the Kashmir valley that were excavated by the Archaeological Survey of India. It is also evident from the earlier studies carried out by various workers that around forty Neolithic sites were discovered in Jammu and Kashmir region but among these only three Neolithic sites were excavated extensively. These are, Burzahom, Gufral and Kanisapur. The archaeological artefacts reported from these Neolithic sites in the Kashmir valley were mainly, pottery, terracotta objects, metal objects, and paste Objects. In the present paper, an analytical estimation of Neolithic culture such as the structural remains, ceramic assemblages, metal objects, terracotta objects, shell objects, bone objects, and stone objects are studied. A large amount of Harappan culture materials remains were reported from the Kashmir Neolithic sites. Hence, it is clarified that both these cultures were contemporary and had import and export trade contacts. The information provided in the present paper about the Neolithic culture in Kashmir is based on the excavations of these three archaeological sites, such as Burzahom, Gufral, and Kanisapur. Though a large number of other Neolithic settlements in the Kashmir valley were reported and they are still waiting to be excavated.

Keywords: Kashmir Neolithic, cultural materials, sites,

INTRODUCTION

It has already been established that the first settled life in Kashmir can be traced back around 3000 BC during the time of Neolithic culture. Archaeological remains also revealed that the people of the early farming communities of Kashmir lived in pit dwellings to protect them from adverse environmental conditions such as cold, warmth, rainfall, etc. The opening of the hole is surrounded on the ground by a cone-shaped thatched house, by the use of wooden bamboo, grasses, and plant leaves. They eventually began to live in the rectangular wattle-daub hut and sun-dried brick buildings. The people of the Kashmir Neolithic successfully domesticated animals, like bulls, horses, and sheep. The analysis of remains indicated that they used ass and buffalo to carry the load. Apart from that, they had started farming some crops i.e. wheat, barley, and linseed, although it began in a primitive way. People of this culture have started to use polished and long stone tools (Celt), along with bone tools (arrowheads) and harvesters (Gufral). The artefacts and other associated materials also suggested that they were in close contact with northwestern India, Central Asia, and China. From Jammu and Kashmir valley around forty Neolithic sites are reported by various workers but among these only three Neolithic sites were excavated extensively. These are, Burzahom, Gufral and Kanisapur.

As we know that material culture is a genuine source to reconstruct the socio-economic aspects of the past human society. All kinds of material cultures recovered from different sites in Kashmir valley symbolized the performance of Neolithic societies and are the real representatives of their manufacturers as well as consumers. Material culture is an important source of defining many factors that played a fundamental role in cultural processes like environment, availability of raw material, technology, organization of production, ideology, and belief system. Thus, cultural materials are an authentic record of ancient societies that play a significant role in archaeological research.

As mentioned above archaeologists have discovered nearly forty Neolithic sites in Kashmir's valley. These settlements are situated on the upper Karewa deposits which provide spectacular views of rivers and lakes. Out of forty sites, only three sites have been excavated till today, i.e. Burzahom (IAR 1960-61:11, 196162: 1721, 196263: 910, 196465: 13, 1965-66: 19, 196869: 10, 197172: 24), Gufkral (IAR 1981-82: 1925) and Kanispur (IAR 1998-99: 30-48). The excavations of these sites revealed ample pieces of evidence of the material culture of the Neolithic period in the Kashmir valley, it includes structural remains, ceramic assemblages, metal objects, terracotta objects, shell objects, bone objects, and stone objects. In the present study, we have briefly described the material culture of the Neolithic in the following sections.

HOUSE STRUCTURE

The excavations have provided a remarkably accurate picture of the lives of the pioneering farmers in the valleys. During the winter, the Neolithic people lived in pits and shelters, which were dug into a loosely compacted deposit of Karewa, probably to protect themselves from the cold winds. It was noticed that these dwelling pits had several post-holes on their peripheries, suggesting the presence of a superstructure made up of either wood or grass covering them. The presence of hearth, ash, charcoal, ceramic assemblage, animal bones, stone tools, and human burials in the pits is indicative of the fact that these pits were used for residential purposes. The steps or stairs were also used for entry and exit points of pits. Remains of pits and associated materials also indicated that for living shallow and deep pits were most commonly used by prehistoric people during the summer and winter seasons respectively. Shreds of evidence of mud and mud bricks structures are also recovered from the later phases of this period.

The excavation at Burzahom revealed several rectangular and square pits, drainage systems, post-holes, hearth, etc. It was observed in the period first that the dwelling pits, were scooped out in the Karewas. These pits are circular or oval on the plan, narrow at the top and wide at the base. The floors of these are flat with sidewalls occasionally plastered with mud. The largest oval pit measured is 2.74 meters in diameter at the top and 4.57 meters at the bottom. In addition, squares or rectangular pit chambers were also found. Analysis of the pit chambers indicated that they are abounding in the central portion of the mound while the circular and oval-shaped pits are found on the periphery of the mound. The Study of period II also clarified that a new structural plan evolved during this period. The semi-subterranean pits and pit chambers were plastered and filled up with mud and red ochre. The mud and mud bricks structures and well-arranged post-hole on the floor were also noticed. It was interesting to note that hearths, grinding stones, and mullers were the necessary component of these houses (IAR: 1964-65; P-13).

The Gufkral site consists of Large and compact dwelling pits, cut into loess deposits, circular or rectangular on the plain with a smallmouth and broad bottom. The diameter of these dwelling pits ranges from 3.80 to 1.50 meters at the top. The big dwelling pits are usually from an earlier phase and the maximum depth of these are ranging from 20 cm to 30 cm deep. A number of the post-holes and hearths were recovered around the pits. The evidence of mud chunk with reed impression is indicating about the superstructure above the pits. The hearths were found rectangular shaped in the earlier phase, while during the later phase rectangular as well as oval-shaped hearths were recovered. It is also observed that the floor and walls of the pits were plastered with mud. The remains of the mud platforms and pit dwelling are found in the second phase and the settlement of this period evidenced the presence of a 5 to 7 cm thick floor made up of a mixture of yellow clay and chunam. In this cultural phase, rectangular dwelling pits were also recovered. Period 1C is represented by a 70 to 80-centimeter thick whitish floor. The main characteristic feature of this period is the representation of a large number of refuse pits and dumps (IAR: 1980-81; 20-23).

Analytical analysis revealed that the evidence of the circular pits was also found at Kanispur archaeological site. The deposit was approximately 15 to 20 cm in thickness benefits any ceramic industry. Evidence of four successive floor levels and a rectangular house were noticed in the period second. At the same time, a large number of bone tools, stone tools, and pottery were recovered on the floor level and evidence of a diaper pebble wall was also found at this site. The decorated terracotta tiles with the pattern of the large disc are found on the slope of the Kanispur (KNP-2). An average of 1.60 m to 2 m ceramic Neolithic level deposit was recovered from Kanispur (KNP-3) but no evidence of structural remains of Neolithic culture was found in the KNP-3 area.

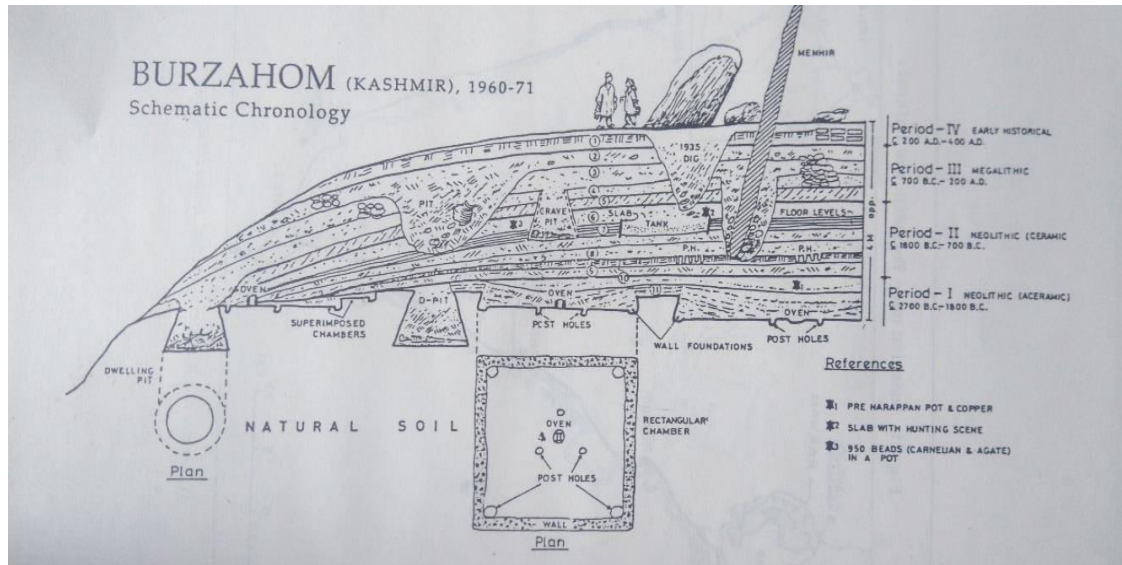


Fig. 1:- Burzahom- schematic section (after Sharma-2000)

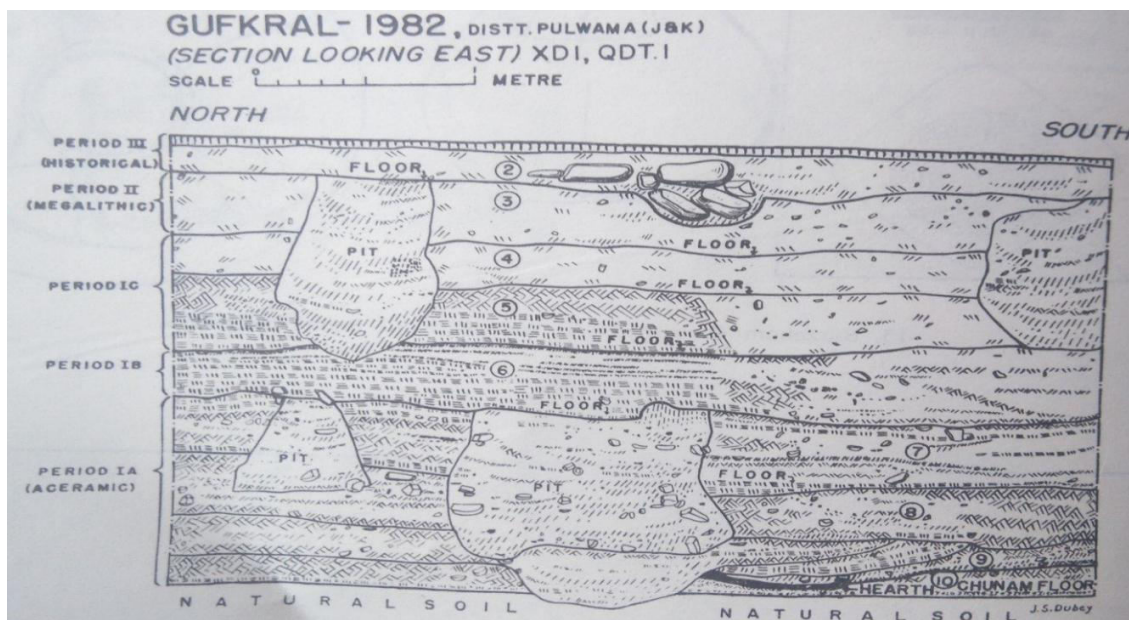


Fig. 2:- Gufral, Jammu and Kashmir- section looking east showing cultural deposits (after Sharma-2000)

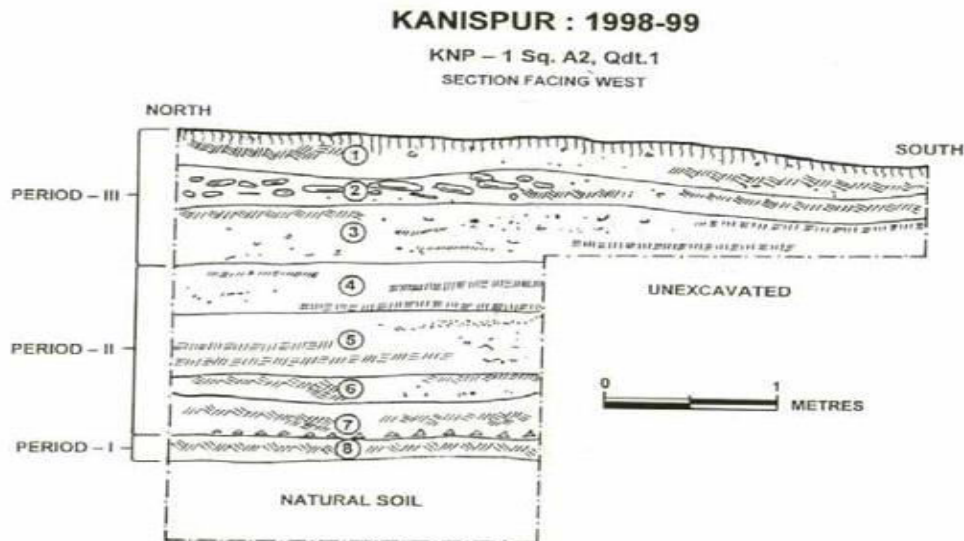


Fig. 3:- Kanispur, Jammu and Kashmir- section looking section facing the west showing cultural deposits (after IAR-1998-99).

CERAMIC ASSEMBLAGE

As we know that ceramic assemblages were a basic need of human beings and therefore, it is the most important key to unlocking various aspects of past settlements. It is evident from the literary data that the earliest settlers of Kashmir were not familiar with ceramic assemblages. However, after some time they learned the technology of manufacturing ceramic assemblage. In earlier stages, most of the ceramic assemblages were handmade with the features of fabric and surface finished coarse but later on, the wheel technology came into existence which expanded the ceramic manufacturing practices. The main shapes included were a dish, bowl, vase, and high-neck jars. It is also noticed that the majority of the pots were having mat impressions on their base, which indicated that after making the pot, the potter kept them on the handwoven floor mats. Decorated paintings are also seen on a number of the pots. In this sequence, a horned deity painting was identified on a globular pot and it is very similar to the characteristics of the pots recovered from Gumla in Pakistan and Kot-Diji in India.

Important Types and Features of the Kashmir Neolithic Pottery

- i. Hemispherical bowl with ring base.
- ii. Bowls without curved sides, which is probably a stand.
- iii. Deep bowls are cups with straight sides or out curved sides.
- iv. Funnel-mouthed vessels.
- v. Small elongated vessels with a bulging belly, cylindrical neck, and ring base.
- vi. Large high-necked jar in steel grey ware.
- vii. Small, wide-mouthed vessel with a beaded rim.
- viii. A small thick based dish or plate.

Important pottery and their forms reported by various workers from the Kashmir Neolithic are briefly described as:

REDWARE

Redware was the main ceramic industry of the Kashmir Neolithic. The redware pottery was reported from Kanispor and Burzahom. The redware is found in the form of pots, dish-on-stand, vases, bowls, plates, basins, spouted bowls, and cooking pots. The redware pottery reported from Kanispor in large number as compared to the other pottery.

RED DULL WARE

The red dull ware pottery is recovered from Kanispor (Mani, 1998-99). The red dull ware is found in the form of pots, dish-on-stand, vases, and bowls.

RED GRITTY WARE

Gritty Redware is the most characteristic feature of Megalithic pottery. A few characteristics of this ware have been found at Burzahom and Gufral in the Neolithic period. The total ceramic assemblage is handmade and generally in strip technique. In some cases, the necks have been turned on a slow wheel. The principal shapes are Kashmir tsoads (small pitchers), voars (lotas), noats (pitchers), Pyala (bowls) type, a few smaller taok (dish) types, and Mathas type (storage vessels).

BUFF WARE

The buff ware is only reported from Kanispor, (Mani, 1998-99). The buff ware pottery mainly was recovered in the form of a vase.

GREY WARE

The grey ware pottery is reported from Period 1B and Period 1C of the Gufral. Fine and coarse grey ware was also reported from Kanispor. Grey ware pottery was mainly handmade and mat impressed designs are also found on the ceramic. Grey ware was more dominant in the Kanispor 1B period.

BURNISHED GREY WARE

The Burnished grey ware is the main feature of the Neolithic period and is reported from the Burzahom and the late Neolithic period of the Gufral. The fabric of the ceramic is medium to fine and mat impressions are found. The principal shapes are the long-necked jars, vases with noticeable necks and rounded bodies, basins, bowls, lotas, and dishes.

STEEL GREY WARE

Steel grey ware pottery is reported from the Burzahom.

COARSE GREY WARE

The coarse grey ware is reported from the Kanispor and Burzahom and Gufral. The surfaces of coarse grey ware are dull grey.

FINE GREY WARE

The fine grey ware is reported from the Burzahom and this fine grey ware has been fired in different temperatures to get various shades such as ashy grey, dull grey, dull brown, and dark grey. The principal shapes of fine grey ware are

Ledji (handi type), Kashmiri Noat (pitcher-ghara), Voar (lota) type, and Tsoad (a small pitcher). However, a few numbers of large vessels were recovered from Burzahom.

BLACKWARE

The blackware potteries are reported from the Kanispor site.

BURNISHED BLACKWARE

The burnished blackware pottery is reported from the Late Neolithic period of the Gufral and Burzahom. This ware was hand-made as well as wheel-turned pottery.

Rough Thick Dull Ware

The rough thick dull ware is reported from the Late Neolithic period of the Gufral.

Objects	Burzahom	Gufral	Kanispur
Redware	+	--	+
Red dull ware	--	--	+
Red gritty ware	+	+	--
Buff ware	--	--	+
Grey ware	--	+	+
Burnished Grey Ware	+	+	--
Steel grey ware	+	--	--
Coarse grey ware	+	+	+
Fine grey ware	+	--	+
Black ware	--	--	+
Burnished black ware	+	+	--
Rough thick dull ware	--	+	--

Table-1. Various types of pottery objects from the Neolithic sites of the Kashmir valley.



Fig. 4. Gufral pottery, period-IB (after Sharma-2000)

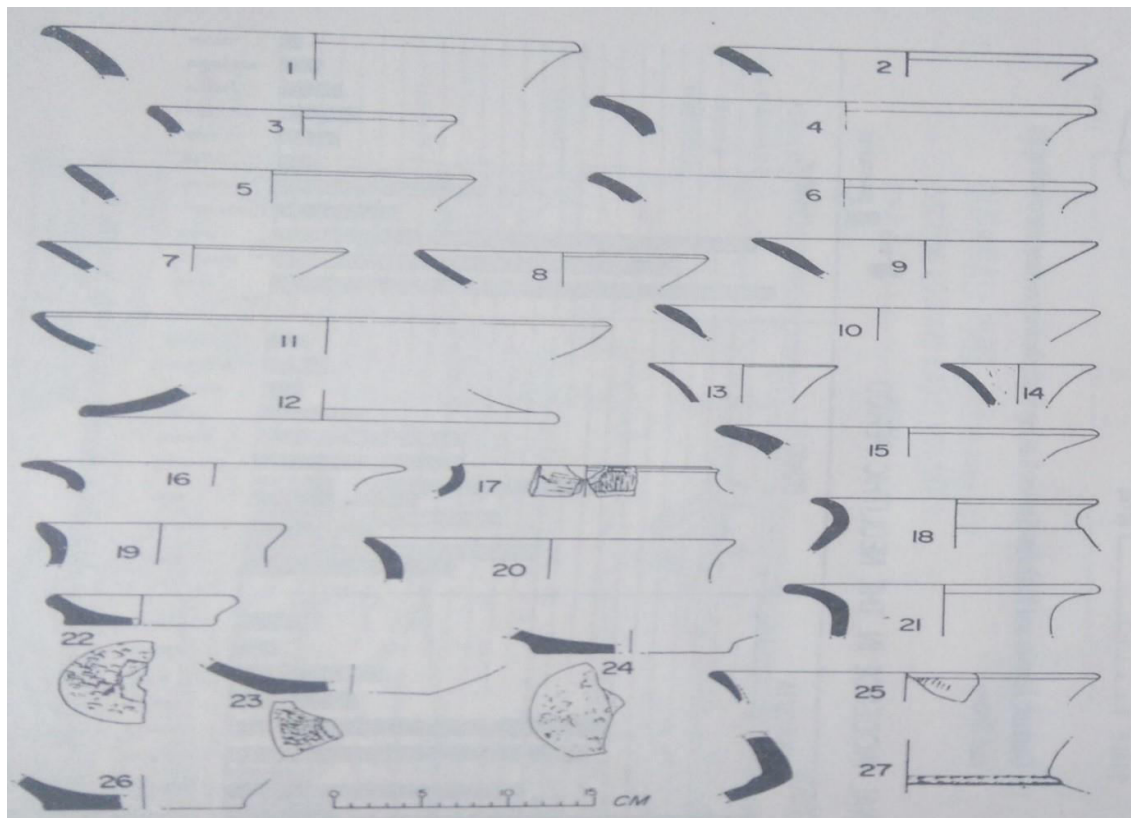


Fig. 5. Gufral, Jammu, and Kashmir-pottery from period IB-Neolithic (after Sharma-2000)

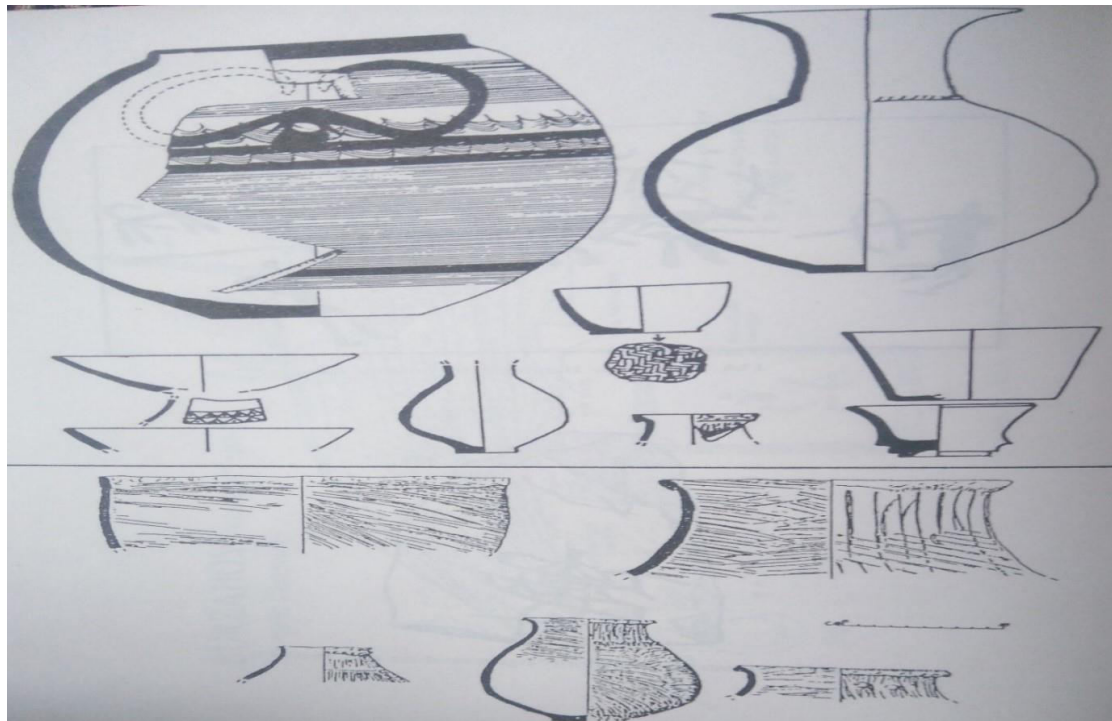


Fig-6: Burzahom pottery from periods I and II (after Sharma-2000)

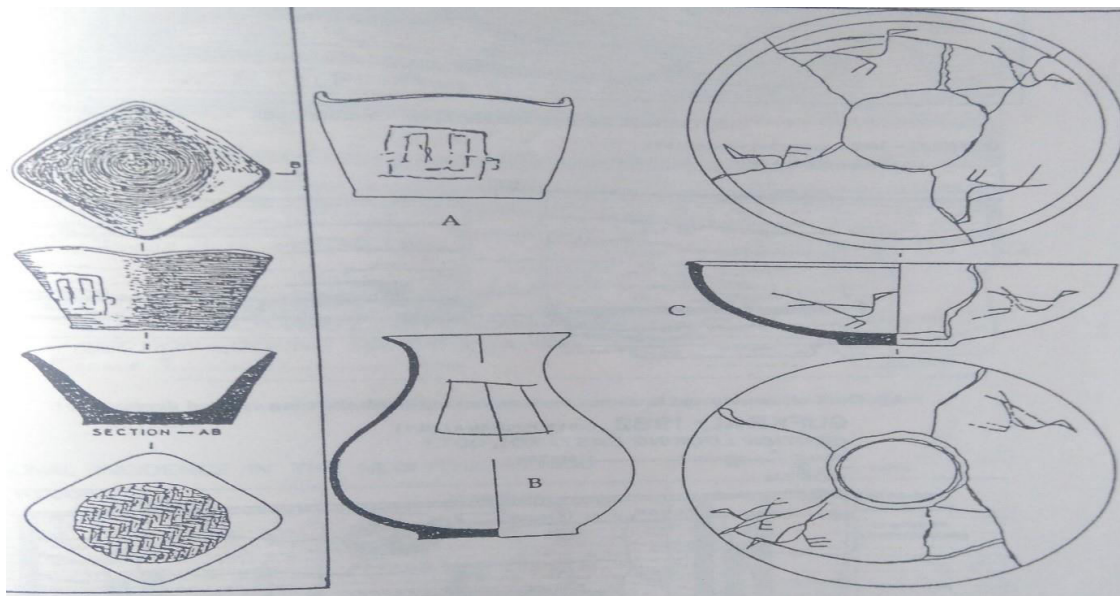


Fig-7: Burzahom- burnished grey ware, period 111, squire and graffiti (after Sharma-2000)

STONE OBJECTS

The stone objects played an important role in Kashmir's Neolithic culture. The stone objects comprised polished axe, harvesters, chisels, pounders, querns, polishers, perforated discs, and grinders. Some of the important stone objects reported from Neolithic sites of Kashmir valley are described below:

STONE CELT

A large number of the stone Celts are recovered from the Neolithic sites of Kashmir. The stone Celt was used by Neolithic people as a tool for hunting and cutting purposes. A total of twenty-eight stone Celts are reported from the Kanispur, Gufal, and Burzahom archaeological sites. However, in addition to stone Celts, different types of unfinished Celts and a huge number of Celt fragments are also recovered during the excavation of these sites. The Celt's stone tools are fully polished and comprise about 10 cm long with a single and double edge. The percentage of stone Celts recovered from archaeological sites and their specific features indicate that this tool played a significant role in the everyday life of Neolithic people.

Mace Head or Ring Stones

A large number of mace headstone tools are recovered during the excavation of Burzahom and Gufal but most of the mace heads are obtained in broken condition. The size of these tools is large and small. Morphological analysis of these tools revealed that most probably the mace-heads were used as a personal weapon as well as dispatching the wounded game in the Neolithic culture. The mace head recovered from the Neolithic cultural site of Kashmir are mainly of two types i.e. disc mace heads and club mace heads. The mace head has an hourglass section in the centre and a biconvex section the outer ring with sharply bevelled edges.

POUNDERS

Pounders are heavy stone tools and are generally used to grind or mix different types of materials. These stone tools are mainly reported from period 1A, Period 1B, and the late Neolithic period of the Gufal Neolithic site.

QUERNS

The quern tool is consisting of two circular stones and this stone tool was used for grinding. Querns stone tools are recovered from all cultural periods of Gufal archaeological site.

Piecers-Cum-Scraper

The piercer-cum-scraper is recovered from period 1A, Period 1B, and the late Neolithic period of the Gufral. Scrappers were used for butchering animals and removing the meat from the hides.

STONE AXE

The stone axe stone tools were recovered from the archaeological site Burzahom (Sharma 2000: 51). The size of these stone tools is nearly 15 cm. long, having an ovoid section, round hammered butt, fully polished, and straight ground edge. A polished stone axe is considered one of the most important tools of the Neolithic era. It is used for heavy as well as light types of work.

BURNISHING STONE

The two burnishing stones are reported from the Burzahom.

GRINDER

The four grinder stones are reported from the Burzahom.

HOES

Most hoes are found incomplete forms. Ten hoes are reported from periods first and second of Burzahom. The irregularly rounded shaped, ventral face, roughly pecked surfaces, and slightly chipped butt are the main feature of Neolithic hoes.

SAWING KNIVES

Nine specimens of sawing knives are recovered from Burzahom. It is flake knives and working edges are invariably sharp and double-edged.

CHISELS

Fourteen different types of chisels are reported from the Burzahom. The chisels are found generally in medium to large sizes.

Double Edge points

A total of 444 double edges of stone and bone tools were recovered from the excavation of Burzahom in period I, period IIA, and period IIB of Burzahom. (Fonia, Burzahom excavation report 1960-71)

Adze

A total of 71 adzes are recovered from the Neolithic period of the Burzahom. The adzes are classified mainly based on their functions related to the forms, section, variations in the butt, and sharpness of the edge.

Harvester or Perforated Knives and Double Haled Harvester

Harvesters' types of tools have been recovered both in bone and stone. A total of 28 stone harvesters are reported from periods IIA and II B of the Burzahom. Harvesters are generally found in rectangular pieces and the opposite thin, having two perforations from both sides. Besides this, the double-haled harvester is also reported from the Late Neolithic period of the Gufral (Sharma 1981: 54-55).

Bells

The stone bells were also recovered from the Late Neolithic period of the Gufral and Kanisipur. (Sharma 1981: 54-55).

Stones points

The 14 stones points are reported from the Gufral.

Objects	Burzahom	Gufral	Kanispur
Stone Celt	+	+	+
Mace head	+	+	--
Pounders	--	+	--
Querns	--	+	--
Piecer-cum-scraper	--	+	--
Stone axe	+	+	--
Burnishing stones	+	--	--
Grinder	+	--	--
Hoes	+	--	--
Sawing knives	+	--	--
Chisel	+	--	--
Double edge points	+	--	--
Adze	+	--	--
Harvester or perforated knives and	+	+	--

Table-2. Various types of Stone objects that reported from the Neolithic sites in the Kashmir valley.



Fig- 8. Gufal-period IC- pounders (after Sharma-2000)

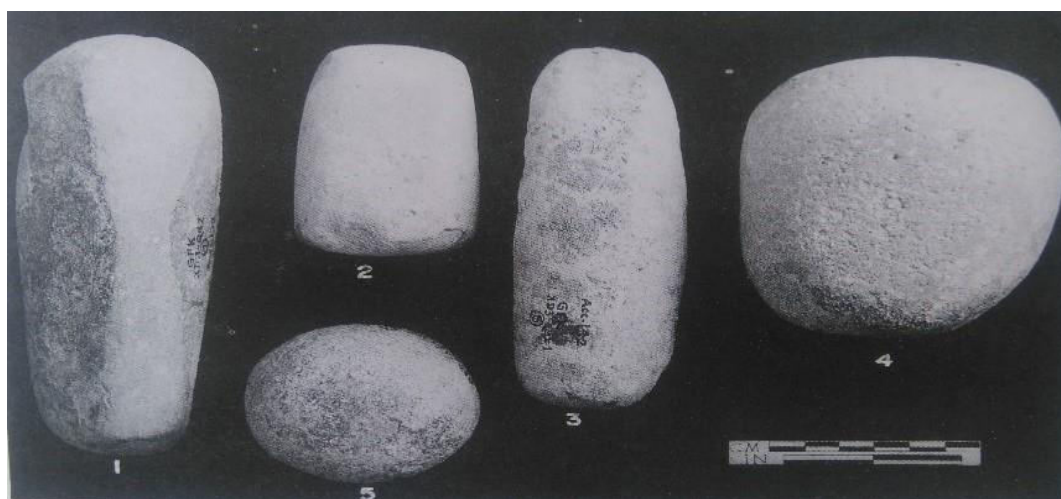


Fig-9. Gufal-pestles and pounders-period IA, ph., 2-1, 2, 3, -pestles period IB-4 pounder; 5-ball (after Sharma-2000)

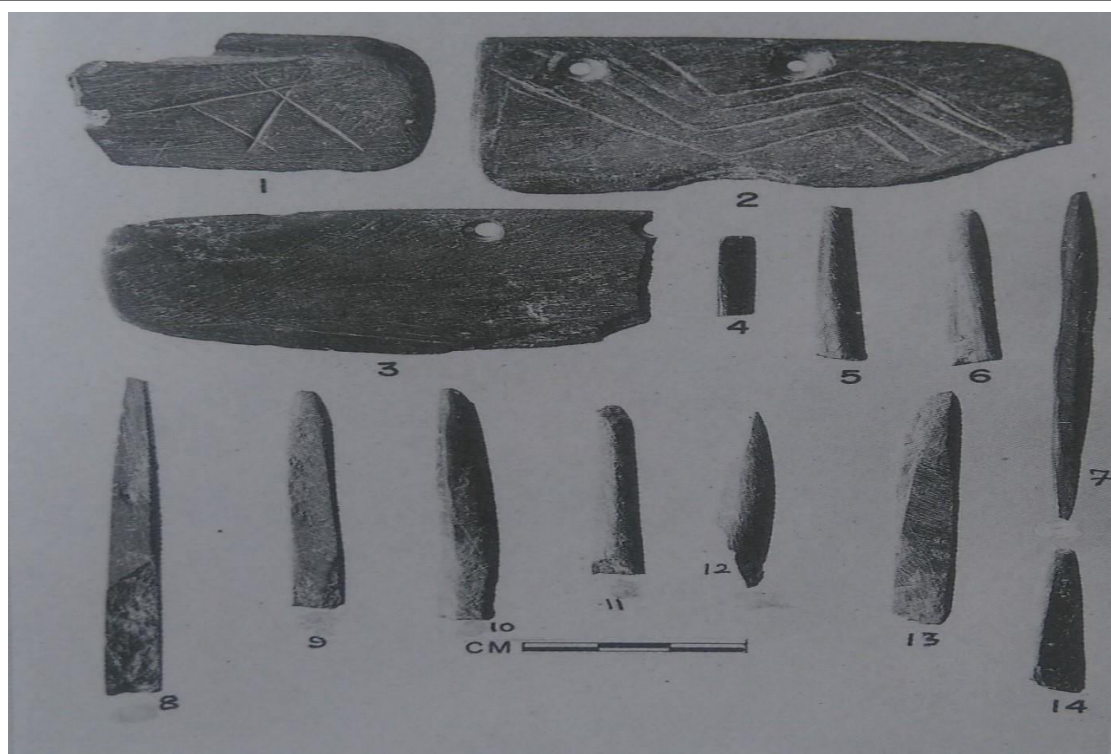


Fig-10. Gufral- stone points- period IA- ph, 3-7; pd. IB- 8,9; period IC- 4,5,6,12,13; harvester-, pd. IC-2 ,3; pd.II- 1 (after Sharma-2000)



Fig-11. Gufral stones objects Period-IA, points-2, 3, 4-phase-1; 1, 5, 6, 8, 9-phase 2; 10; phase 3; scraper-7 phase 2, 11 phase 3 (after Sharma-2000)



Fig-12. Stone and bone harvester- Burzahom- 1, 2, 4-stone, 5. 5 bone; Gufral-30 stone (after Sharma-2000)



Fig-13. Gufral- Ring stone- period IA, Ph.3-2; period II-1, 3, 5. (after Sharma-2000).

SEMI-PRECIOUS STONES

Semiprecious stone objects have an important role in understanding the economic aspects of ancient society. However, the carnelian and agate have a significant part in the bead industry of the Neolithic period in Kashmir. Literary data revealed that a total of 886 carnelian beads (59.30 percent) and 87 agate beads (34.53 percent) are reported from the Neolithic period of the Burzahom, however, it is interesting that 864 carnelian beads were recovered from a pot of the second period of Burzahom. No carnelian bead was recovered from the third period. The carnelian beads are found in different shapes such as circular barrel, circular, cylindrical, truncated bicone circular, bicone circular, concave bicone circular, convex bicone circular, truncated, and hexagonal. Out of 87 agate beads, 79 beads are found in long barrel circular, one each standard lenticular two in round eye-beads, rectangular tabular, short lenticular, oval eye-bead, fish-shaped eye-bead, oval eye-bead, and leech-shaped. The carnelian “comma” and “tiger” shaped pendant on light green zaid with a pointed end and a straight flat top having a hole are reported from the Gufral (Sharma 2000: 97). Earlier studies indicated that only the carnelian and agate beads were reported from the Burzahom and Gufral.

Objects	Burzahom	Gufral	Kanispur
Carnelian beads	+	+	--
Agate beads	+	--	--
Light green zaid	--	+	--

Table- 3. Various types of Semi-precious stone tools that reported from the Neolithic sites in the Kashmir valley.



Fig-14: Pot, excavated from Burzahom with a painting of a wild goat with long horns and hanging ears with beads. (https://en.wikipedia.org/wiki/Burzahom_archaeological_site)

Bone and Ivory Objects

Bone and ivory objects have also played an important role in the day-to-day life of the Kashmir Neolithic people. It was noticed that the bones and ivory objects industry was equally rich as compared to the other industries. A brief description of bones and ivory objects is mentioned below:-

NEEDLES

The needles made up of bones are reported from the Neolithic sites Kanispur, Gufral, and Burzahom and these Needles are of four sub-types i.e.

- (i) Simple needles, having about 12 cm. in length, round section, and flattened end.

(ii) Small needles in a round and pointed shapes.

(iii) Round needles, round shapes throughout but flat at one end and Double perforation, with a flattened tapering body (Sharma 2000:53).

Some polished bone needles are also recovered from the site of Kanisapur and Gufral.

HARPOONS

A harpoon is a long thin weapon with a sharp pointed end and a rope tied to it that is used to catch sea animals. Harpoons were recovered from the Neolithic site Burzahom but the number was only two. Generally, these are recovered in three sub-types i.e. (i) Harpoons with barbs on both sides, (ii) Harpoons with symmetrically carved and (iii) Harpoons with barbs mostly on one side (Sharma 2000:54)

BONE POINTS

Archaeological studies revealed that a large number of bone points were recovered from the Neolithic sites of Kashmir, i.e. forty-nine from the Burzahom, and four from the Kanisapur. The morphological analysis of the points indicated that these are of three sub-types such as (i) Thin sharp and projected points, (ii) Sharp points with a rounded and flattened body, and (iii) Butt ground points.

From the Burzahom archaeological site, two double-edged bone points were also recovered and four bone points are reported from the Kanisapur.

SCRAPERS

A scraper is a flint implement with a sharp edge used for scraping material such as hide or wood and scrapers were a significant tool of Neolithic society. It is assumed that this tool was used to butcher the animals as well as to remove the meat from the hides and three sub-types of bone scraper are reported from the Burzahom i.e. (i) Heavy, horn tip, sharpened and burnished, (ii) Medium and polishing long bones and (iii) Light thin and flat.

Arrowheads

Arrowheads are the sharp point of the end part of an arrow especially used for shooting or hunting purposes. From the excavation of Burzahom and Gufral in Kashmir valley, some arrowheads were also recovered and these are of two sub-types, such as (i) Shouldered and (ii) Rounded.

Besides this, the splinter and horns (mostly arrowheads) are reported from the Gufral by Sharma in 2000.

Awls

Awls is a small pointed tool used for piercing holes, especially in leather. Two awls are reported from period 1A of the Gufral (Sharma 2000: 97)

Pen-shaped points

The pen-shaped bone point is reported from the Burzahom. (Fonia, Burzahom excavation report 1960-71).

Dagger type Single Edged Medium Point

A dagger is a weapon with a short pointed blade, used for stabbing. A total of 72 single-edged and medium-pointed dagger types were reported from period first, period second (A), and period second (B) of the Burzahom.

Double Edge Points (Knitters)

Fonia (1960-71) reported a total of 218 knitters from period I, period II A and II B of the Burzahom excavation.

Composite Tool

The composite tools (a bone made on along, hallow bone?) are reported from the Burzahom. It is like a cobbler's poker, along with a pointed tool with a long handle and evidently for stitching leather (Fonia 1960-71, Burzahom excavation report)

Bones Beads

21 bone beads are reported from the Neolithic period of the Burzahom (Burzahom: excavation report (1960-71), however, one bone bead is also recovered from the Gufral. . (Sharma 1981:9)

Other bone objects

In the other bone objects category, 27 small and long bone tools, splinters, and horns (mostly arrowheads) are reported from period 1A of the Gufral.

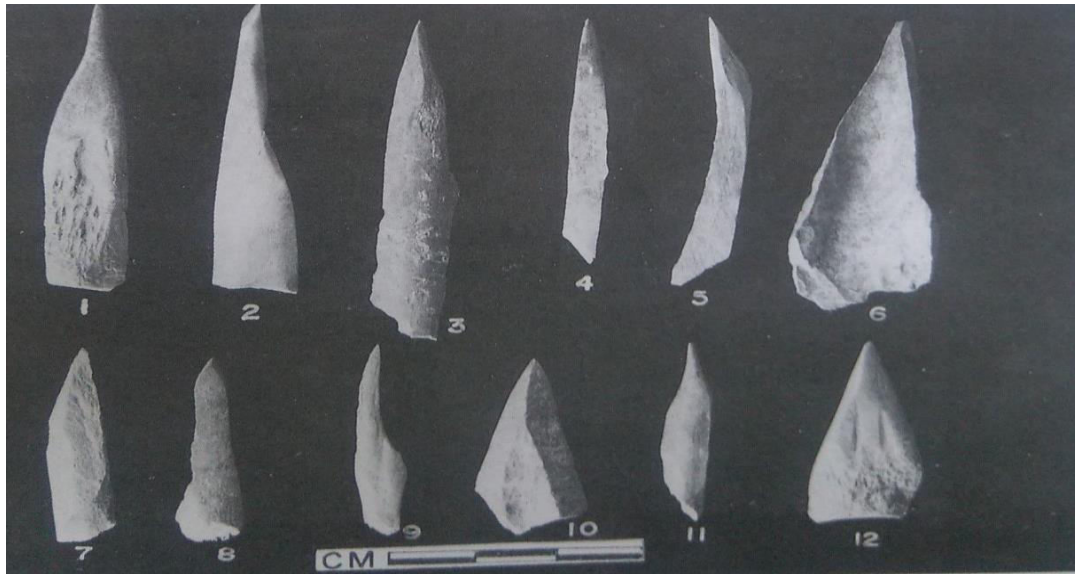


Fig-15. Gufral- bone tools, period 1A, phase 1 points- 3,4,5,9; scrapper-6,10; arrowhead- 7,11,2; awls-2,8; borer-1(after Sharma 2000)

Objects	Burzahom	Gufral	Kanispur
Needles and polished bone needles	+	+	+
Harpoons	+	--	--
Bone points	+	--	+
Scrapers	+	--	--
Arrowhead	+	+	--
Awls	--	+	--
Pen-shaped point	+	--	--
Pendant	--	+	--
Composite tool	+	--	--
Small and long bone tool	--	+	--
Splinter and horn	--	+	--
Dagger type single edge medium point	+	--	--
Knitters (double edge points)	+	--	--
Well-polished bone tool	--	+	--
Bone objects with four obliquemised (simultaneously) grooves	--	+	--
Bone beads	+	+	--

Table- 4. Types of Bone objects reported from the Neolithic sites of the Kashmir valley

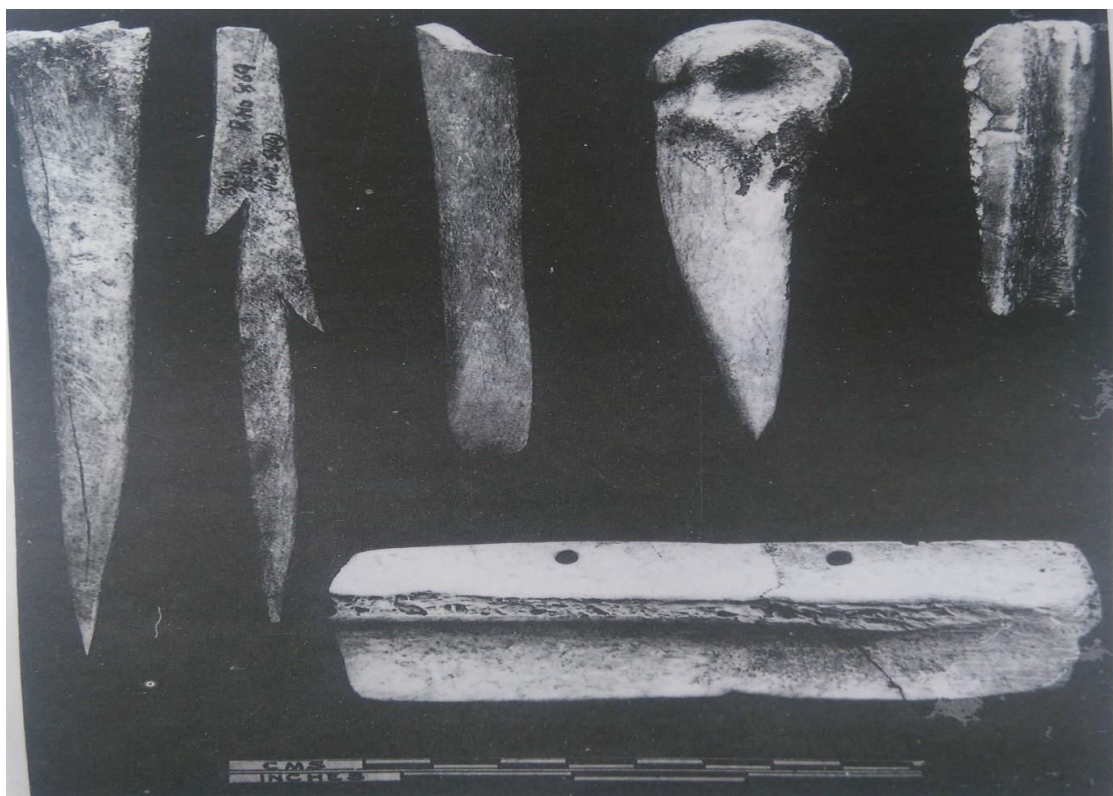


Fig-16. Burzahom-bone tools, 5- harvester on the bone (after Sharma 2000)



Fig-17. Burzahom- bone tools (after Sharma 2000)

METAL OBJECTS

The copper objects were more common during the Neolithic period and they were recovered from the Neolithic period at Burzahom, Gufral, and Kanispor respectively. Some of the metal objects recovered from the Kashmir Neolithic are briefly described below:-

CHISELS

Various types of chisels which are different in size and shape are reported from the Neolithic sites in the Kashmir valley. These metallic chisels are recovered from both the Neolithic sites i.e. from Kanispur as well as from the Burzahom site.

Ear-Nose rings and Hairpins

The four metallic ear and nose rings are reported from the Kanispur and eight copper hairpins are also recovered along with rings from the Gufral (Sharma 1981: 9).

Needles

The 44 metallic needles recovered were reported from the Burzahom and many other from Kanispur, and Gufral.

Antimony Rod

A total of 34-39 Antimony rods were reported from the Burzahom.

Arrow Heads

Seven complete metallic arrowheads were reported from the Burzahom (Fonia- Burzahom excavation report 1960-71). It is found distinctively, barbed and tanged shaped.

Harpoons

The 2 copper harpoons are reported from the Burzahom.

Spear Head

The 2 spearheads are reported from the Burzahom. (Fonia- Burzahom excavation report 1960-71)

Bangles (complete and broken)

Complete fragments of 14-16 copper bangles are recovered from period IIB and period III of Burzahom. Bangles pieces are also reported from the Kanispur.

Complete ring

A complete ring (thin compressed section with overlapped end) is reported from the period IIA of the Burzahom. (Fonia- Burzahom excavation report 1960-71)

Bar Celt

A complete bar-Celts was reported from the Period III of the Burzahom site. (Fonia- Burzahom excavation report)

Complete pin

A 40 to 43 number of the complete pin with different shapes and sizes are reported from the Burzahom. (Fonia- Burzahom excavation report 1960-71) However, two copper pins from the Kanispur and seven copper pins from the Gufral were also recovered (Sharma 1981:9)

Coil Head

The metallic flattered coil head was recovered from the Gufral.

Objects	Burzahom	Gufral	Kanispur
Chisels	+	--	+
Ear and nose ring and hairpin	--	+	+
Needles	+	+	+
Antimony rod	+	+	--
Arrowhead	+	+	--
Harpoons (thrusting type)	+	--	--
Spearheads	+	--	+
Fragmentary wire piece	+	--	--
Bangles (complete and broken)	+	--	+

Complete ring (coil-like)	+	--	--
Bar Celt	+	--	--
Complete pin	+	--	+
Complete nail	+	--	--
Coil head	--	+	--

Table- 5. Various types of Metal objects that reported from the Kashmir Neolithic sites.

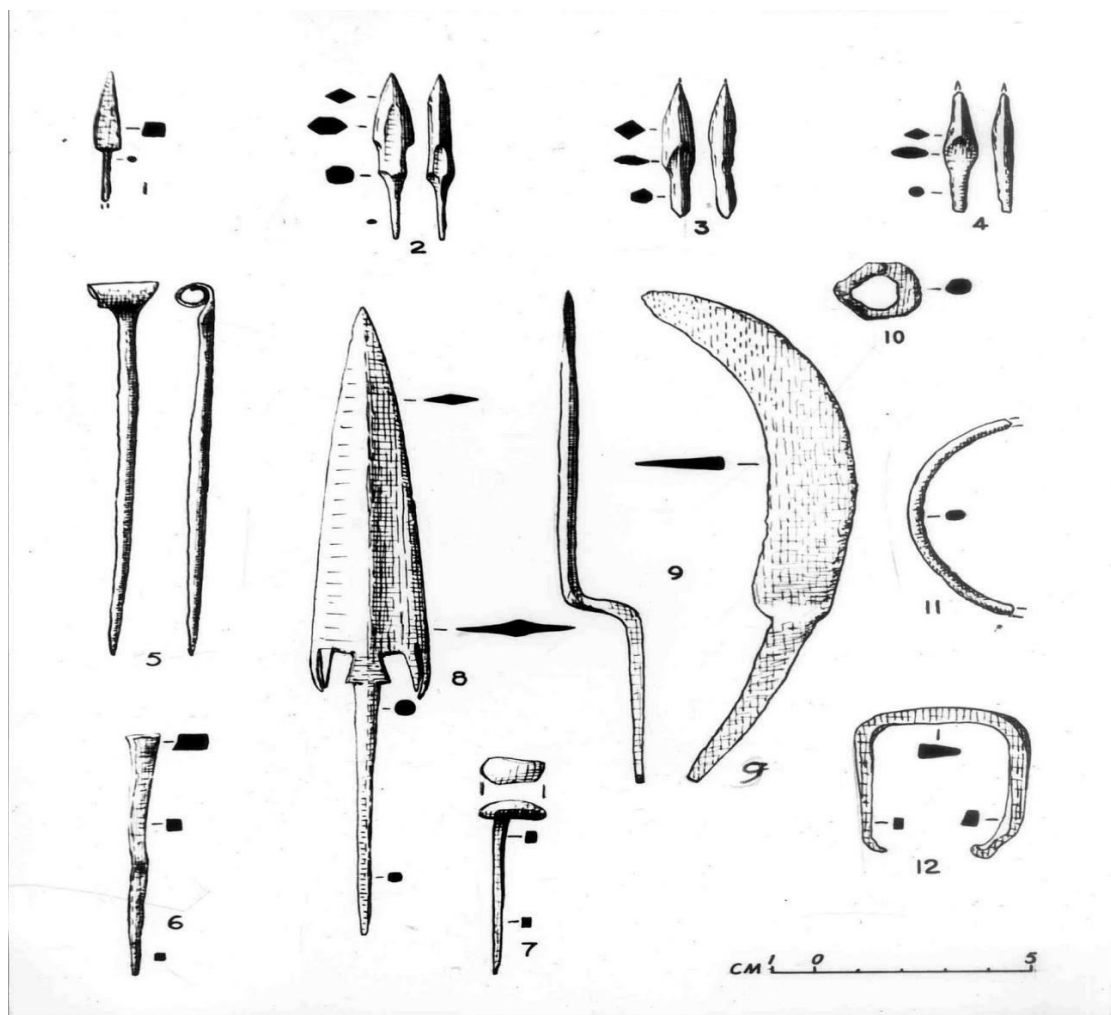


Fig.18. Metallic objects reported from Burzahoam-1-tang tip, 2-arrowhead, 3,4- sharp and broken arrowhead, 5,6,7- complete pin, 8-spearhead, 9, complete sickle, 10- complete ring, 11- broken fragmentary bangle, 12- complete clamp (Fonia-Burzahom excavation report)

TERRACOTTA OBJECTS

Terracotta objects are essentially dominating items and significant sources of information regarding philosophy and traditions. A large number of terracotta objects are reported from the Neolithic sites in Kashmir such as terracotta bangles, terracotta pendants, and terracotta marbles. The description of terracotta objects is given below: Bangles: Bangles are a very traditional Indian ornament and represent solitary status. The nine terracotta bangles are reported from the Gufral (Sharma1981). A few terracotta bangles are also recovered from Kanispur. V-shaped pendant: The V-shaped terracotta pendant is reported from the Gufral. (Sharma 2000:97) Broken Terracotta marbles: The two dozen broken marbles are reported from the Kanispur and six terracotta marble from the Gufral. (Sharma 1981:9) Coil-head: The

terracotta coil-head is reported from the late Neolithic period of the Gufral. Terracotta beads: Two terracotta beads are found at the Burzahom site. (Fonia- Burzahom excavation report 1960-71).

Objects	Burzahom	Kanispur	Gufral
Bangles pieces	--	+	+
V shaped pendant	--	--	+
Broken terracotta marble	--	+	+
Coil-head	--	--	+
Terracotta beads	+	--	+

Table-6. Terracotta objects reported from the Neolithic sites of the Kashmir valley.



Fig-19. A terracotta bobbin from Burzahom (after Yatoo 2009).



Fig- 20. Schist disks from Burzahom (after Yatoo 2009).

PASTE OBJECTS

It is evident from the literature that steatite beads were popular during the Neolithic period of Kashmir. A total of five steatite beads from the Burzahom, two from the Kanispur, and four from Gufral were recovered during the excavation of these sites respectively. The steatite beads found from the Neolithic site of Kashmir are categorized as cylinder circular, concave bicone, and barrel circular-shaped (Sharma 1981:9).

DISCUSSION AND CONCLUSIONS

The archaeological excavations provided an important stratigraphical sequence of ancient culture in the Kashmir valley, such as aceramic Neolithic culture (C.3000-2500 BC), Early Neolithic culture (C.2500-2000 BC), Late Neolithic culture (C.2000-1700 BC), Megalithic culture (C.1700-1000 BC), Historical culture and Medieval culture. The earlier settled life in the Kashmir valley can be traced back to about 3000 BC. The location of the Neolithic settlements in Kashmir is very interesting. A cluster of forty Neolithic sites are located in the Kashmir valley but no single Neolithic site is recovered in other areas of the Jammu and Kashmir state.

Archaeological studies suggested that the ecological conditions of the Kashmir valley played an important role in the origin as well as expansion of the settled life of earlier farming communities. Geomorphological features showed that the region has a large concentration of alluvial deposits. The rivers and lakes might have played an important role by providing high-quality agricultural land as well as irrigation facilities, along with the provision of different varieties of wild animals and plants.

This region was also an important resource area for various types of metal ores and minerals. Therefore, it is assumed that the Kashmir valley provided ample opportunities for the beginning and development of the Neolithic culture in this region. It is significant to note that the people of Neolithic culture were permanently settled here and successfully developed their traditions, custom, and ritual activities. They have established a successful trade network with contemporary cultures. Various types of Harappan material were also recovered during the Neolithic period of Kashmir, such as dish-on-stand, perforated jars, high-necked jars, copper objects (antimony rod, harpoons, bangles, ear, and nose rings, etc.), semi-precious stone objects (blades, carnelian, and agate beads), terracotta objects (bangles, beads, and pendants) and steatite beads, etc. Keeping because the same, the present study aimed to trace the nature of the trade network between the Kashmir Neolithic and Harappan civilizations. The results described above and presented in Tables-1 to 5 and Figures-1 to 20 revealed an interesting and unexpected phenomenon.

CONCLUDING REMARKS

A look into the material inventory recovered from different phases at Harappan sites and Kashmir Neolithic suggest the cultural contact between both cultures from the fourth millennium BC onwards. The dish-on stand, perforated jar, carnelian bead, agate bead, blades of semi-precious stones, and copper objects are clearly showing a long interaction between Harappan and Neolithic cultures. The pits dwelling, post holes, mud brick structures, stone pounders and mullers are common features of these cultures. A Neolithic ring stone is also reported from Kunal. A lot of similarities also can be seen in the burial parties, agricultural activities and animal husbandry. Hence, there is no doubt, that both cultures were contemporary and had import and export trade contacts. The information about the Neolithic culture in Kashmir is based on excavations at the three sites, Burzahom, Gufkral and Kanispor while there are several other Neolithic settlements in Kashmir valley which are still waiting to be excavated. After these excavations, we can highlight the all cultural aspects and trade contacts of both cultures.

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STRUCTURAL, ELECTRICAL AND MAGNETIC BEHAVIOR OF STRONTIUM SUBSTITUTED SAMARIUM COBALTITE NANOPARTICLES

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ABSTRACT

The uncommon earth cobaltites, SmCoO₃ perovskite nanoparticles were synthesized by EDTA–citrate complexing method. Thermal decomposition behaviour of the gel, phase formation and morphology of LSC powders were characterized by thermogravimetry/differential thermal (DSC/TG) analysis, Powder X- ray diffraction (XRD) Field emission scanning electron microscope (FESEM) and magnetic properties respectively. The data of all these characterization techniques confirmed the orthorhombic phase with particles size in the range of 20-60 nm. The structural, electrical and magnetic properties were measured for SmCoO₃ nanoparticles. The purpose of all these application studies was to evaluate the prepared materials for practical applications. The substitution of Sm³⁺ and Co³⁺ respectively greatly influenced the structural, electrical and magnetic properties.

Keywords: Perovskite nanoparticles, Electrical conductivity, thermogravimetry, Magnetic Parameters, Powder X-ray diffraction and FESEM.

1. INTRODUCTION

Nanoscience and nanotechnology is a new emerging field that has already attracted the researchers and engineers. Nanomaterials can be prepared by taking the metal, non-metals, polymeric materials etc. However the transition metals and the uncommon earth cobaltites are fascinating class of material among the perovskites family because of the blended twist provinces of Co particles. Among the uncommon earth cobaltites, SmCoO₃ has unique concentration because of its noteworthy properties which are talked about in the past sections [1]. The Sr subbed SmCoO₃ perovskites are immensely multifunctional materials with transaction of twist, charge and cross section orderings prompting invigorating new physical science and potential applications. Perovskites, the metal oxides with general formula ABO₃, are very technologically very important because of their versatile applications [2-6]. The structural and other parameters of perovskites can be controlled by the stoichiometric ratio between uncommon earth metal A and transition metal B [7]. Among a wide range of perovskites, the SmCoO₃ a rhombohedral perovskite and has been under continuous research for the last half century [8]. SmCoO₃ perovskite based materials exhibit very fascinating applications because of their high electronic and electrical conductivity [9-12]. A great interest in the further applications of SmCoO₃ based materials lie in substitution of Sm³⁺ with other rare-earth metal ions and in the same fashion, the Sm³⁺ can be replaced with other transition metal ions [13]. We have reported recently few new perovskites for structural, electrical and magnetic behavior evaluation for advanced technologically applications [14]. Here in the article, As of late, the nanocrystalline cobaltites certainly stand out enough to be noticed in view of their new charming attractive properties as a component of size of particles. Constantly the mass and nano types of Sm_{1-x}Sr_xCoO₃ (0.25 ≤ x ≤ 1) have been blended utilizing high and low temperature courses at a temperature over 1000 oC. In the current section, we report nitty gritty examinations of the primary, electrical and attractive properties of nano measured Sm_{1-x}Sr_xCoO₃ (0.25 ≤ x ≤ 1) particles and the outcomes are talked about in the accompanying segments.

2. EXPERIMENTAL WORK

2.1 Synthesis of SmCoO_3 nanoparticles

$\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles are AR grade $\text{Sm}(\text{NO}_3)_3 \cdot 6(\text{H}_2\text{O})$, $\text{Sr}(\text{NO}_3)_2$, $\text{Co}(\text{NO}_3)_2 \cdot 6(\text{H}_2\text{O})$ and $\text{C}_6\text{H}_8\text{O}_7$ were prepared via co precipitation method [15]. All the chemicals were used as such without any further purification. The required concentration of representing metal salts solutions were prepared in deionised water and stirred on a magnetic hot plate at ~ 50 - 60°C . Aqueous ammonia solution (~ 2 M) was used to raise the pH value to 9-10. After maintaining the pH all the reaction mixtures were stirred for 5-6 h at room temperature continuously. The precipitates were washed using distilled water to reduce the pH to

~ 7 . The precipitates of all compositions were dried in oven at 100°C and annealing was carried out at 700°C for 7 hrs in a temperature controlled muffle furnace Vulcan A-550 at heating rate $5^\circ\text{C}/\text{min}$. The annealed samples of all compositions were grinded into powder form and were characterized by various techniques.

3. RESULTS AND DISCUSSION

3.1 Nano crystalline $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) particle structural properties

➤ Thermo gravimetric Analysis (TGA)

The TG-DTA bends of nanocrystalline $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ particles are displayed in Fig.1. The DTA bends of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) shows a wide exothermic top at around 250°C - 450°C for every one of the examples and an endothermic pinnacle shows up beneath 200°C starts from the vaporization cycle of the inward water contained in nitrate-citrate gel. At the same time, the TG bend show a steady reduction of weight reduction with climb of temperature. The weight reduction under 250°C can be attributed to the vanishing of the ingested dampness from the air. The significant weight reduction saw around 250°C - 800°C is related with the disintegration of the natural residuals in the powder, which is comparing to expansive exothermic top in the bend of DTA for every one of the examples. The expansive exothermic pinnacle shows that the burning system is fundamentally smooth.

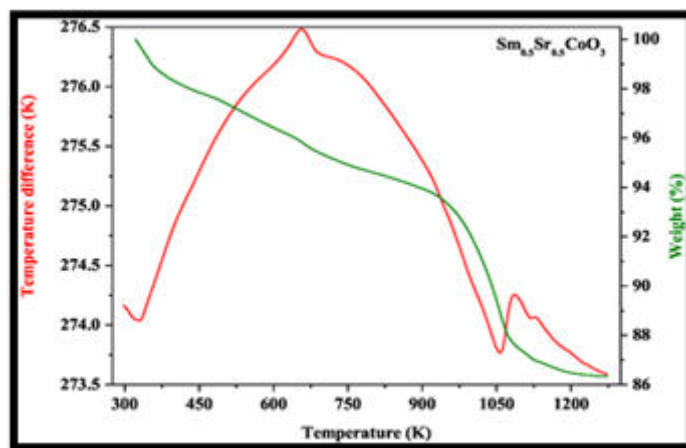


Fig. 1 TG/DTA plots of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles.

The $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) examples show the numerous means of weight misfortunes which portrays that when the dried gel powders are lighted anytime, the ignition quickly proliferated forward until all gels are totally copied out to shape free powders. In the current case, all the $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) examples display exothermic tops around 250°C - 500°C . As indicated by Sakai et al [15], the exothermic response happens at around 500°C went with weight reduction of around 1 %, comparing to the deterioration response of the carboxyl

gathering for unadulterated citrus extract. The absolute level of weight reduction of the $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) powders is 17 %, 13 %, 42 % and 32 % for $x = 0.25, 0.50, 0.75$ and 1.0 individually. The weight reduction of the gel ended at around 950°C , 800°C , 850°C and 1000°C for $x = 0.25, 0.50, 0.75$ and 1.0 individually. The endothermic pinnacles are seen at $800^\circ\text{C} - 1000^\circ\text{C}$ could be allotted to the disintegration of the citrus extract. As indicated by the writing, a lot of gases like H_2 , H_2O , CO_2 , CH_4 , NO , NO_2 , NH_3 were delivered during this burning system. No obvious weight reduction is tracked down after these temperatures for $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) examples which affirm the development of end result. This perception permits to presuming that tempering the pre-arranged examples at 900°C , 800°C , 900°C and 1000°C for $x = 0.25, 0.50, 0.75$ and 1.0 separately are attractive to get athermally steady eventual outcome.

➤ Analysis of Powder X-ray diffraction

The powder XRD examples of nanocrystalline $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0 \leq x \leq 1$) particles are displayed in Fig. 2(a). The noticed example shows clear cut tops for the polycrystalline idea of the material. The diffraction pinnacles of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ coordinate well with ICDD card numbers, for example, 00-1071, 053-0112 and 044-1064 for $x = 0.25, 0.50$ and $x = 0.75$ individually. The $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ tests show orthorhombic perovskite structure with $Pbnm$ and $Pnma$ space bunches up to ($0 \leq x \leq 0.75$) and $x=1$ shows tetragonal gem stage. The place of the extreme focus XRD top ($1\ 1\ 2$) of the $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 0.75$) examples consistently moves towards lower 2θ side for Sr replacement from that of unadulterated SmCoO_3 and it is displayed in Fig. 2(b). This further affirms the effectively consolidation of Sr^{2+} particles into SmCoO_3 cross section [16-20] and every one of the examples show total arrangement of perovskite type orthorhombic structure with expanding Sr^{2+} focus. Further, we have not noticed any hint of auxiliary stages in diffraction designs which affirm the viability of this burning combination to get ready single stage perovskite oxides. The full width at half greatest (β) of all planes is assessed by fitting the XRD top profile to Lorentzian shape. The typical crystallite size (D) of the $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1.0$) is determined utilizing the Scherrer's recipe.

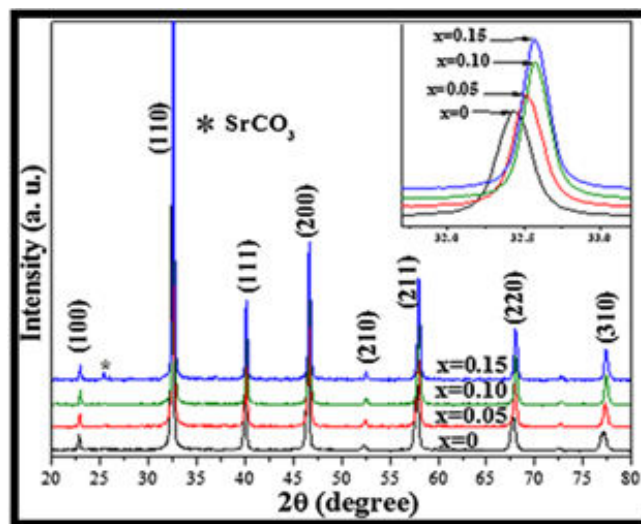


Fig: 2 (a) Powder XRD patterns of pattern of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0 \leq x \leq 1$) nanoparticles

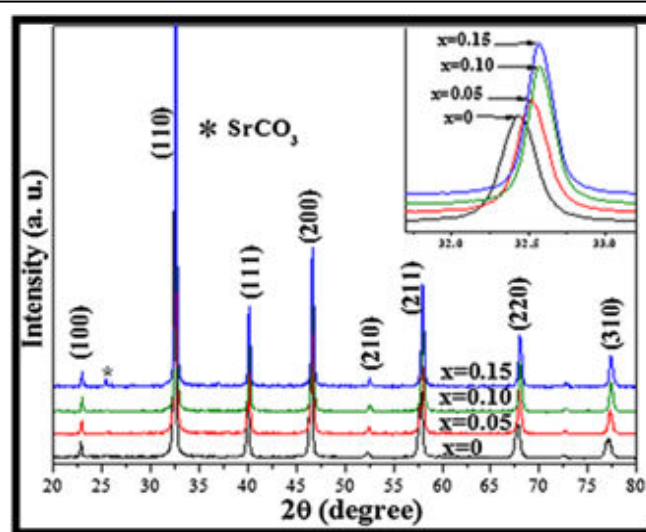


Fig: 2 (b) Enlarged view of XRD $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0 \leq x \leq 1$) nanoparticles

An expansion in the width of the XRD tops with the expansion of Sr particles which connotes that the mixtures are comprised of better particles. Expanding Sr particle focus in SmCoO_3 lead to an extension of grid constants in the a-and b-hub while the c-pivot isn't pursuing the uniform direction. Such a sudden change in c-pivot is fathomable since the Sr^{2+} particle is bigger than the Sm^{3+} particle and subsequently actuates bigger grid boundaries of the perovskite structure. Further, the adjustment of grid constants prompts the cross section reorientations (Pbnm-Pnma) after $x \geq 0.5$ in $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ tests. The reorientation of the bearings of cross section boundaries because of replacement of half of Sr^{2+} to the SmCoO_3 is plainly valued. It very well might be ascribed to the mathematical grid mutilations brought about by bigger ionic radii of Sr^{2+} (1.44 Å) particles.

Yokokawa et al, [21-24] have revealed that the expansion in grid bending essentially diminishes the (Co-O-Co) bond point from 180° , which unequivocally influences the actual properties of cobaltites. Further it is of significance that the current Sr doped SmCoO_3 has the Pnma space bunch as it shows $b > a$ and c . Lee et al, [25] have announced that adjustments of the pivot of longer grid boundary prompts oxygen misfortune in perovskite structure.

Table: 1. XRD Parameters of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) Nanoparticles

S. No	x	Crystal Structure	Space group	Lattice Constants (Å)			V (Å ³)	D _x (g/m ³)	D (nm)	ICDD No
				a	b	c				
1	0.25	O	Pbnm	5.332	5.340	7.5	214.86	7.46	17	00-1071
2	0.50	O	Pnma	5.393	7.582	5.367	219.51	6.83	14	053-0112
3	0.75	O	Pnma	5.394	7.655	5.391	222.61	6.27	23	053-0112
4	1.0	T	-	5.842	5.842	7.329	250.22	5.16	24	044-1064

where *O – Orthorhombic and *T – Tetragonal

The crystallographic boundaries, for example, grid constants, unit cell volume, x-beam thickness and crystallite sizes are determined and summed up in Table.1. The assessed unit cell volume is straightly expanding with Sr doping fixation while x-beam thickness diminishes.

➤ Surface Morphological and Basic Compositional Examination

The surface morphology and EDX examples of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) pellets are broke down utilizing FESEM and it is displayed in Fig.7.3.1. It shows that the grains are agglomerated and has the circular shape in both $x=0.25$ and $x=0.75$ tests though the blended morphology is seen in $x=0.50$ test. The noticed micrographs of $x=0.50$ example show that the particles have the rice-like shapes. They likewise show bigger grains disseminated hardly on the outer layer of pellet. The circular grains encompassed by pores are seen in $x=1.0$ test.

The FESEM analysis further brings out the nanosized of the sample. The size of particles are comparable to nanometer range, which are in good agreement with the XRD data. In order to verify the elemental composition of prepared $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles, EDX spectra recorded. The EDX spectra show the presence of proposed elements such as Sm, Sr, Co and O in the prepared sample and further thereby certifying the absence of any other impurity elements.

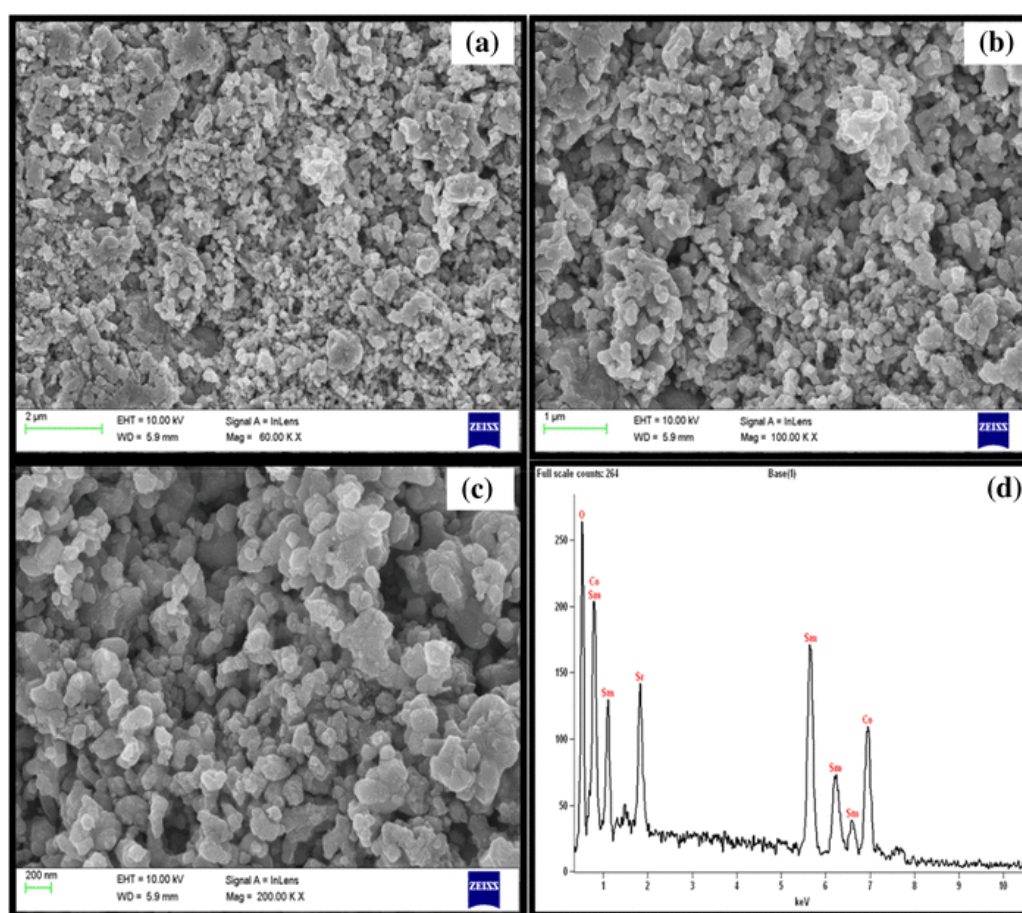


Fig. 3. FESEM images and EDAX spectra of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) Nanoparticle Table: 2.
Qualitative analysis of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$

Con.(x)	Weight%				Total	Atom%				Total
	Sm	Sr	Co	O		Sm	Sr	Co	O	
0.25	55.20	7.90	24.63	12.28	100.00	22.35	5.49	25.44	46.72	100.00
0.50	36.60	20.39	27.02	15.98	100.00	12.59	12.04	23.71	51.66	100.00
0.75	20.09	29.60	32.95	17.36	100.00	6.31	15.97	26.43	51.29	100.00
1.0	-	45.12	46.25	8.24	100.00	-	28.00	42.66	29.34	100.00

3.2 Analysis of Electrical Conductivity

The electrical conductivity of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles is completed by changing recurrence and temperature. The air conditioner conductivity versus recurrence plots for various temperatures is displayed in Fig.4. At low frequencies the plot is straight i.e., conductivity is free of recurrence change in this reach constantly at all temperatures. This conduct is because of the predominance of dc conductivity part contributed by high grain limit opposition (σ_{dc}) of the example. The dc part of electrical conductivity is estimated for every one of the examples at 285 K which are higher than that of the parent compound SmCoO_3 [26-29]. The electrical conductivity estimated from the conductance spectra are recorded in Table.2. The noticed improvement in the electrical conductivity of arranged $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) ought to be tended to. Prior reports have accounted it based on the amount of Co^{3+} and Co^{4+} , the oxygen opening made by the different valence conditions of constituent particles [29-32] and more modest size of nanoparticles. In the current review, the XPS examination additionally uncovers presence of blended valence territories of Co particles and oxygen opportunities. Thus it is clear that the number of destinations for jumping increments with the increment of surface to volume proportion of more modest nanograins of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$).

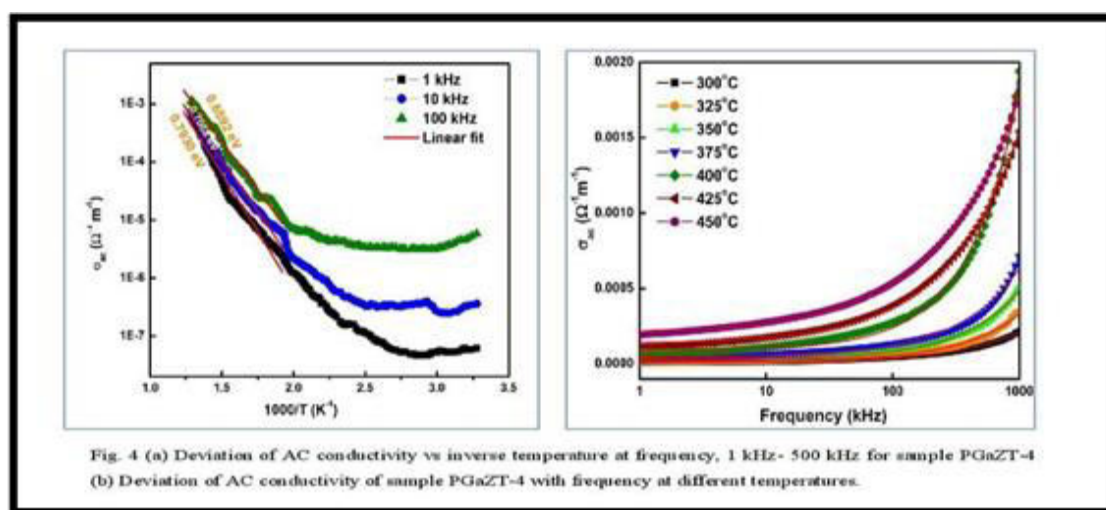


Fig: 4. Frequency and temperature dependent of electrical conductivity of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles

To comprehend the component of jumping further, it is shrewd to take advantage of Jonschers power regulation. The $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles comply with Jonschers power regulation at a specific scope of temperature and recurrence from there on the examples show negative power regulation way of behaving. A nonlinear fitting is done involving Jonscher's power regulation condition for all the conductivity bends in Fig.5. The worth of n increments concerning the temperature. The pattern recommends the little polaron bouncing in the $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles. Besides, the electrical conductivity is expanding with temperature which demonstrates that the $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles are semiconducting in nature. The temperature reliance of conductivity separated from conductivity spectra is found to comply with the Arrhenius connection and it is displayed in Fig.5.

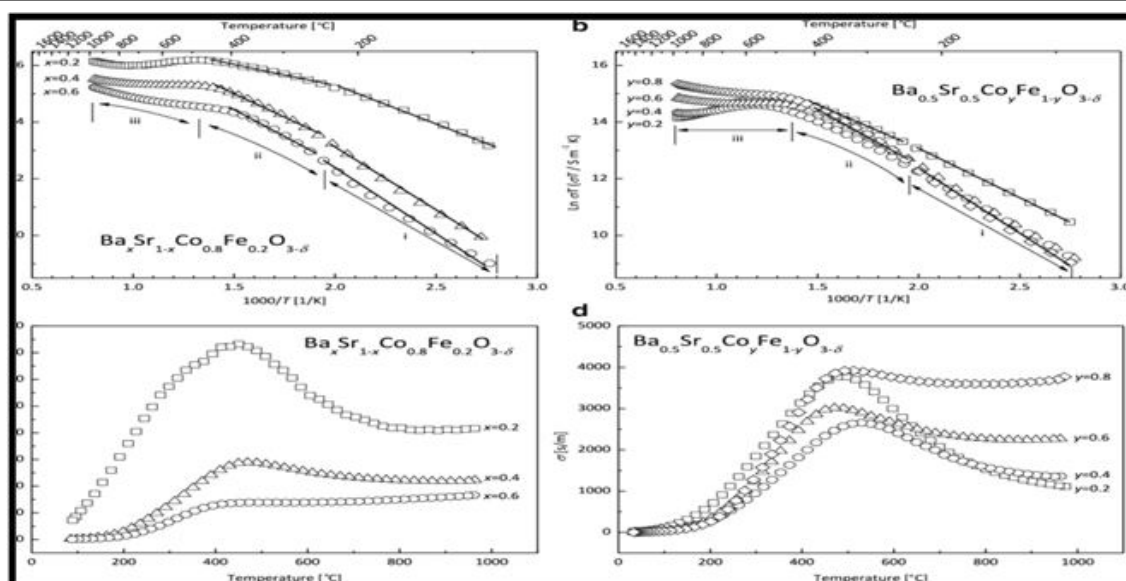


Fig: 5. the electrical conductivity of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles was plotted using the Arrhenius equation.

It is seen from Fig. 5 that the plot has nonlinear line showing two unique slants in the two different temperature ranges. Their particular upsides of enactment energy are organized in Table.2. The actuation energy of the pre-arranged examples show straight increments with temperature. In this way the component of conductivity conduct is credited to the little polaron jumping somewhere in the range of Co^{3+} and Co^{4+} of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles.

3.3 CONCLUSION

We have endeavored the nitty gritty examinations of the job of Sr^{2+} replacement on the underlying, electrical and attractive properties of SmCoO_3 nanoparticles. XRD and FESEM pictures recommends that the single stage nanocrystalline $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) particles. XPS examination uncovers the blended valence of Co particles in $\text{Sm}_{0.5}\text{Sr}_{0.5}\text{CoO}_3$ nanoparticles. The perception of Griffiths ease in the current work helps a relationship to CMR property and subsequently its suitable applications. The $\text{Sm}_{0.5}\text{Sr}_{0.5}\text{CoO}_3$ nanoparticles with perovskite structure show a mark of magneto-electric coupling with T_c of 213 K. The low temperature attractive investigations like ZFC/FC polarization and AC vulnerability study uncover the chance of twist glass like period of $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ nanoparticles. The development of electrical and attractive construction as a component of the ionic sweep of Sr^{2+} particles has been excused with regards to the adjustment of the neighborhood primary twists in $\text{Sm}_{1-x}\text{Sr}_x\text{CoO}_3$ ($0.25 \leq x \leq 1$) nanoparticles.

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