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श्रेयान्द्रव्यमयाद्यज्ञा ज्ञानयज्ञः परन्तप।
सर्वं कर्माखिलं पार्थ ज्ञाने परिसमाप्यते॥

Shrimad Bhagwat Gita, Chapter 4 (33)

"Attaining knowledge is superior to
accumulation of all sumptous substances.
As all acts finally conclude into wisdom."

C O N T E N T S

Contents

From the Editorial Board

D ear Reader,

We welcome you to the Volume 6/ Issue 2, another footing of Vimarsh, in the lifespan of its publication.

The intent of Vimarsh to publish up-to-date, first-rate and novel research papers alongside germane and insightful reviews stands accomplished. As such, the journal seeks to be pulsating, engaging and accessible, and simultaneously integrative and taxing. With this issue, our commitment to the highest standards of scholastic publishing, including scrupulous, blind peer review and making research available, to an interested audience, stays firm.

Unsurprisingly, any papers submitted, either individually or collaboratively, are greatly delightful and make a considerable contribution to the expansion and accomplishment of this journal. Hence, best wishes and appreciation to the authors for their participation in the Journal.

Lastly, we express sincere gratitude to I'M Advertisers yet again, for being an unparalleled element in the successful publishing of this issue.

We conclude at this juncture with a promise of countless thriving issues in the years to come.

In case of any queries or comments, it would be a pleasure to hear from you at vimarsh@iftmuniversity.ac.in.

Happy Reading...!!!

Regards...

The Vimarsh Team

Consumer Trust in Online Shopping - A Demographic Study

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ABSTRACT

E-commerce has made life of people simple and innovative. Online shopping is the part of e-commerce. The reason for consumer not purchasing from internet vendor is the lack of trust. It saves time as well as effort of people and also gives access to various brands which are not available in the traditional market. The purpose of our research study was to analyze if there is any relationship between the demographic variables of the consumer and the various trust factor. The researcher hopes through this study that the analysis would help develop association of various trust factors that affect consumer shopping online with the demographic variables of the respondents. To check their dependency on each other chi square test has been used.

***Keywords:** E-commerce, Trust factors, Demographic variables.*

INTRODUCTION

Today, India is one of the fastest-growing e-commerce markets in Asia/Pacific along with China. With increase in internet penetration, adoption of smart phones and lower data rates, the way India shops is completely changing, said **Flipkart Co-founder and CEO Sachin Bansal**. Analysts say that online shopping space in India is expanding at a massive scale, consulting firm **PwC's India Technology Leader Sandeep Ladda** said, e-commerce sector has seen growth in 2014 with the rapid technology adoption led by the increasing use of devices like smart phones and tablets and access to the Internet through broadband, 3G, etc. which lead to increase in online consumer base. **Oxigen Services Deputy MD Sunil Kulkarni** said, "Mobile is expected to be a major platform for transition and transactions flow in e-commerce and payments brands". Consolidation is also likely to continue in 2015, especially in newer market segments such as real-estate, grocery and furniture, and **PwC** expects India's e-commerce market to increase by over 70% in 2015.

ONLINE SHOPPING IN INDIA

Highlights of e-commerce Industry in 2014:
- Us-based Amazon commits $2 billion in India's e-commerce space.
- Soft Bank invests $627 million in Snap deal $ 210 million in Ola Cabs.
- Flipkart gets $1.7 billion in funding, taking valuation to $7 billion.

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- Reliance Group exists Yatra.com with 12-fold inc.in original Investment.
- Footfalls during festive season drops in shops in favor of e-commerce.

REVIEW OF LITERATURE

Lina Zhou, Dingsong Zhang (2007) in their research paper "Online shopping acceptance model- A critical survey of consumer factors in online shopping, conductive an extensive survey of extant related studies and synthesize their findings into a reference model called OSAM (online shopping acceptance model) to explain consumer acceptance of online shopping. **Anshu Jain (2013)** in his research paper "An empirical analysis of online shopping platforms in India" found that apparel were purchased from Jabong.com the most, multiple stuff from Flipkart.com and also found that people in India purchase electronic goods to the maximum, about 28% from the total percentage. **Ashok Kumar Chandra, Devendra Kumar sinha (2013)** in their research paper "Factors affecting the online shopping behavior: A study with reference to BhilaiDurg" found that there is a very high positive relation between the education and attitude towards online shopping and they also found that website designs and features are the most important factors influencing consumer to shop online. **Akash B. Shah, Mayur G. Rao (2014)** in their research paper "A study on factors affecting online shopping behavior in Gujarat" found three main factors considered by respondents for online shopping: Product variety, price of product and security/ privacy. **A.Y. Kettiramalingam, R.Mathivanan & Mangayarkarsh (2014)** in their research paper "A study on customer satisfaction towards online shopping (with special reference to Coimbatore city)" found that customers will be satisfied with the standardization of quality of products offered online & procedures for services delivery as the buyers feel higher risk of frauds due to that and it also leads to not trusting the online sites. **Jens Riegelsberger (2014) in his paper** "Building trust in online shopping" said that online vendors must identify symptons rather than symbols of trust worthiness. The researcher should use the concept of "Embedding" to capture the contextual factors that contribute to trust. Like, temporal embedding, social embedding and institutional embedding. **Rahul Argha Sen (2014)** in his research paper "online shopping: A study of the factors influencing online purchase of products in Kolkata" found cost factor as the most important factor that influences the online purchase of products in Kolkata, second factor found was convenience factor, third one was the product factor and the last was seller related factor which influence online purchase of product. **Verma Rekha & Chako Nisha (2014)** in their research paper "Consumer attitude towards online shopping" concluded that respondents accessed the internet to support their work on a daily basis but accessed the internet for online shopping occasionally. The respondents were found to prefer online shopping to physical shopping due to benefits such as saves time, comfortable, relaxed shopping, detailed product information, mode of payment, comparison impacting consumer behavior towards online shopping.

RESEARCH METHODOLOGY

Objective of the study
- The main objective of the present study was to analyze the association between the demographic variable of the respondents and the various trust factors associated with online shopping.

The area of the study was "Online shopping". The study was conducted in Gwalior city. People of all age groups were our respondents. The population for the present study was, the people of all age groups, education, occupation and income who uses Internet for shopping or who does online shopping. A total of 93 respondents are the sample size of the study. Though we distributed around 100 questionnaires but few of them were not returned back and some were half filled, due to which the exact sample size could only be 93. The non-probability sampling technique has been used in the present study. Convenience sampling has been adopted to collect data from the sample. The survey method utilized a questionnaire made on Microsoft word to collect data. The questionnaires were manually filled and thus the respondents found it easy to get filled by getting all their doubts cleared at that particular point of time. The responses were taken using likert5 point scale. To analyze and interpret the results or findings of the study the researcher has used Pearson's chi square test. For this purpose we instead of doing calculations manually have perform chi square test on SPSS software.

HYPOTHESIS OF THE STUDY

H1: There is an association between gender and reason behind purchase.

H2: There is an association between income and product price.

H3: There is an association between age and domestic shops.

H4: There is an association between occupation and customer reviews.

H5: There is an association between education and free shipping.

H6: There is an association between gender and trustworthiness.

ANALYSIS AND INTERPRETATION

Table 1: Demographic Profile of the respondents

Age	18-25= 49	26-32= 34	33-45= 9	46 above= 1
Education	Non graduate= 14	Above graduate= 48	Professionals= 24	Graduate= 5
Occupation	Student= 70	Business= 9	Other Industry= 10	Not employed= 4
Income	Below 2-3 lakhs= 28	3-12 lakhs= 14	None= 1	

Gender (Male=35, Female= 58)

Among the 100 respondents 62.4% females use Internet for online shopping as compare to males who does 37.6% online shopping.18-25 age group respondents accounts to 52.7% which is highest, reason being that the young generation is more advanced and uses Internet to the maximum. It can also be noticed that people above 46 age accounts to only 1.1% of the total sample, this shows that the older generation still not comfortable or use to Internet and still prefer shopping traditionally. The number of above graduate respondents participated in the study are maximum, that is 51.6%. This shows that online shopping is done maximum by people who are above graduate. The least participation is done by non-professionals. The Students accounts 75.3% of the total sample. This is due to maximum usage of Internet done by the young generation. Whereas, people who belongs to other industry and business have frequency almost similar that is 10.8% and 9.7%. Unemployed people account to 4.3% of the total population. Respondents who belongs to no income group are 54.8% as they don't earn they do shop without the fear of risk of security and privacy. The second income group is 2-3 lakhs which prefer doing online shopping and account to 30.1%. The third income group was 3-12 lakhs which account to 15.1%.

Table 2: Pearson's Chi square test analysis

Association	Value	Df	Asymp-sig (2-sided)
Gender & reason behind purchase	3.56	4	.468
Income & price of product	16.040	6	.014
Age & domestic shop security	12.522	12	.405
Occupation & customer reviews	6.441	12	.898
Education & free shipping	21.942	16	.143
Gender & trustworthiness	1.926	4	.749

In the above table since the calculated chi square value at 5% significant level is .468, .405, .898, .143 & .749 which is greater than 0.05 (i.e. p > 0.05). Thus we fail to reject the null hypothesis and can say that there is no significant relationship between gender and reason behind purchase, age & domestic shop security, occupation & customer reviews, education & free shipping and gender & trustworthiness. For income & price of the product, chi square value at 5% significant level is .014 which is less than .05 (i.e. p

<0.05). Thus we reject the null hypothesis and can say that there is a significant relationship between Income and price of the product purchase

FINDINGS AND CONCLUSION

Conducting a survey in a form of a questionnaire seemed like the most appropriate strategy to be able to get a picture of consumer's opinions in the matter. The purpose with the questionnaire was to gather information about how consumers perceive the importance of different trust factors. Many previous studies look at consumer trust towards a specific Internet vendor and its website, but the aim with our survey was to look at consumer trust in e-commerce in general.

Our study main objective was to find the relationship between the demographic variables of the respondents and the various trust factors associated with online shopping of the customers.

After going through the findings of our study we found that though we considered six trust factors associated with the consumer trust in online shopping only one factor came out to be having an association with one of the demographic profile that is called income. We were able to prove in our findings with the help of Pearson's chi square test that, there is an association between income and the price of product purchase online. This was one of the major findings of our study.

Conclusion on the basis of the finding is that the price of product purchase online is directly related to the income of the consumer that means if the income of the consumers increases they will try to purchase goods at higher price and if there income is low they will purchase low or average price of products available online and the maximum online shopping is done by the students who are much more advanced and up to the use of Internet. They are more active on Internet and various web sites, associated to online shopping. They are the on who are ready to take all sorts of risk associate to online shopping. on the basis of income of the people and the occupation of the people, the maximum online shopping is done by the people who belongs to no income group and the same is the case with the occupation here the students do shop online more, this shows that the maximum shopping done online

is by the students and they belong to no income group.

Further it can be concluded that though we thought earlier and took it as an assumption that there is some association between gender and reason behind purchase but results prove us wrong and we found that there is no dependence of gender on reason behind purchase. Both male and female purchase products and they have different reason for purchase.

The researcher also noticed that domestic shops security handling was also not affected by age of the respondents. All age group people have their own perception regarding security handling of domestic shops. Nor there was any association found between education and free shipping. Respondents belonging to any education background have different views regarding free shipping of products. There was no dependence found between occupation and customer reviews. Respondent who belongs to different occupation were independent of customer reviews, that means the customer reviews were not affected by the occupation of the people. Furthermore, we also conclude that there was no association between gender and trustworthiness of the site. That means, trustworthiness of site is independent of gender. People whether male or female have different perception regarding trustworthiness of the site.

LIMITATIONS & FUTURE SCOPE

1. Larger group of sample size could have produced more statistically significant results, although maximum are seen to present in the survey.
2. The study has several other limitations also that affect the reliability and validity of findings. The study did not take into account the other trust factors, only which felt more important like customer reviews, free shipping, trust worthiness of site, domestic shops security, reason behind purchase of product online and price of product were given more importance. The result could have been different if other factors were considered related to trust. Further only selected respondents of age 18-25 were given more importance and even their participation in the survey is maximum

compare to other age group people. Therefore, a self - selection bias might have affected the findings of this study.

3. And the last can be, the usage of frequency table and bar diagrams to analyze our findings as we have conducted chi square test which is a non-parametric test and can be used for ordinal scale data. More reliable results would have come if the data was collected on interval scale as the high level test like regression and correlation could be applied to test the hypothesis, which cannot be done in the present study.

Here follows some areas of suggestion for future research:

1. One possibility of future research is to conduct the same survey, but with a large sample to be able to generalize the findings.
2. Another can be, to study do people of different cultures emphasize different trust establishing factors which are affect by their demographic profile.
3. In our research the focus was on consumer trust in e-commerce, however, online trust is a relevant aspect for all parties as well. Like, employees, suppliers and distributors. One recommendation is to shift the focus to one of these parties and see if it might result in different kind of trust establishing factors.
4. Indeed the research can also be done by analyzing different age group people, a comparison can be done with the two age group people like 18-25 age group people & above 50 age group people.
5. Future studies can also differentiate between the perceptions of consumers who have not transacted online with the perceptions of consumers who have transacted online.
6. The study can be conducted by taking some other trust factors.

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A Project-based Framework for Strategic Competitive Analysis - A Pragmatic Study of A Hologram Manufacturing Unit

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ABSTRACT

Securing any document, product, package these days is a really difficult task. Because advancement on technology has made copying or cloning or counterfeiting of any product, paper and documents an easy task. As per Reserve Bank of India (RBI), about 1.95 lakh fake notes amounting to Rs. 75.5 crore were detected by Commercial banks in 2007-08. As per AC Nielsen study nearly 10 to 30 percent toiletries, cosmetics and packaged food are counterfeit. This number clearly shows how strong counterfeit market is. Thankfully there is an industry which helps in protecting brands and documents from counterfeiting or cloning, that is, hologram industry. Hologram is three-dimensional image formed by the interference of light beams from a laser or other coherent light source. It is also a strong substitute for bar code, RFID tags etc. which was helping in fighting against counterfeiting but hologram over the years became an important element in protecting brand.

From this paper we can get information on available types of holograms in the market and its uses on different problems. This research study has been done on hologram manufacturing unit of Manipal Technologies, which is into this domain from past 3 years. A strategically competitive analysis have been made to understand which hologram types are most used, what all types available and who uses it on what situation. Based on that suggestions are formulated, on which company can make decisions to take its hologram manufacturing unit into one of the best players in hologram industry.

***Keywords:** Hologram, Technology, Packaging, Security*

INTRODUCTION

A hologram may be embedded either via hot-stamping foil, wherein an extremely thin layer of only a few micrometers of depth is bonded into the paper or a plastic substrate by means of a hot-melt adhesive (called a size coat) and heat from a metal die, or it may be directly embossed as holographic paper, or onto the laminate of a card itself. When incorporated with a custom design pattern or logo, hologram hot stamping foils become security foils that protect credit cards, passports, bank notes and value documents from counterfeiting. Holograms help in curtailing forging, duplication and piracy of products along with an important factor for packaging. Hence holograms are very essential for security purposes. Once stamped on a product, they cannot be removed or forged, enhancing the product at the same time. Also from a security perspective, if stamped, a hologram is a superior security device as it is virtually impossible to remove from its substrate.

In India it has association which looks after hologram industry namely Hologram Manufacturers Association of India (HOMAI). It is a self-regulated disciplinary body came into existence in 1998 to promote and regulate the Indian hologram

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industry. Another association of hologram is IHMA. The International Hologram Manufacturers Association, or popularly known as IHMA a not-for-profit membership organization, is made up of nearly 100 of the world's leading hologram companies who actively cooperate to maintain the highest professional, security and quality standards in support of their customers. The IHMA was founded in 1993 to represent and promote the interests of hologram manufacturers and the hologram industry worldwide, offering a wide range of services and benefits to members.

Packaging is the dress code of any brand. It is the 6th element of the marketing mix which is heavily integrated into our daily lives, which we see all around us, on everyday items such as chocolate bars and potato chip packets. However, packaging plays an important role in the marketing mix- as a price criterion, as a setter of trends, in de?ning the character of products, and as an instrument to create brand identity and shelf impact. Global packaging sales reached $797 billion in 2013 and grow at an annual rate of 4% to 2018, according to a new market report by Smithers Pira. Sales of packaging are concentrated in Asia, which accounted for 36% of the total in value terms in 2012. North America and Western Europe totalled shares of 23% and 22% respectively. In 2012, Eastern Europe was the fourth largest consumer of packaging with a global share of 6%, closely followed by South and Central America with 5%. The Middle East represents 3% of the global demand for packaging, while Africa and Australasia each have a 2% share. Size of growing at a rate of 15%. This growth rate of 15% is expected to double in the next two years.

Objective of the Study

1. Realize the hologram market and its scenario in India;
2. To do market analysis and to develop and improve strategies;
3. To understand deeply about the various types in holograms;
4. Understand the use of holograms in different industry segments;
5. To recognize the different uses of holograms since its inception;
6. To analyze competition strategically for Hologram Industry.

NEED FOR THE STUDY

The study is conducted to understand the hologram industry strategically and to and to make strategically competitive analysis, to study changing trends in hologram industry over the years in India

SCOPE FOR THE STUDY

The study titled "study on Strategic Competitive Analysis of Hologram Industry" is based on the information collected from hologram manufacturer and other various segments which uses holograms for security purposes.

Source of data:
Primary data: Primary data are those which are collected a fresh for the first time and thus happen to be original in character. The primary data collection involves the collecting of information for the first time by observation, experimentation and through questionnaire in the original form by the researcher himself. The primary data for the study is collected from the structural questionnaire. Here an attempt by the researcher is made to get information on Hologram adaptability and its uses in India.

Secondary data: The secondary data are those which have been collected by some individuals or research organizations which have been processed. Generally speaking secondary data are information which have been previously collected by some organization to satisfy own need but the department under reference for an entirely different reason is using it. The secondary data that was collected in the present study was mainly from the various websites, Research database like ProQuest, HMAI and websites of Manipal Technologies Limited.

METHODOLOGY OF THE STUDY

The methodology adopted to carry out the present project is as follows;
1. Sampling Method: Simple random sampling
2. Sample Size: 50 companies
3. Area of study: Across India
4. Primary data: structured questionnaire
5. Period of study: October 2014 to December 2014.

REVIEW OF LITERATURE

Report on counterfeit industry by The Automotive Component Manufacturers Association of India (ACMA), November 2013, says we all know that, for any industry, must update their equipment, software or what- ever else we need so that their services remain valid in today's changing world. Unfortunately, some of us don't realize that counterfeiters change with the technology too. Thanks to hologram technology which helps to keep brands character safe.

A project report by California Polytechnic State University, San Luis Obispo on significant of security printing in October 2010 says Authenticity is a virtue in society because it requires honesty, integrity and moral fiber. It is disturbing to know that an overwhelming percentage of goods are counterfeit and that counterfeiters are not diminishing. Fortunately, there are industries that focus on reducing counterfeit goods. A significant segment of the graphic communication industry includes the practice of security printing. Security printing is the area of the graphic communication industry that focuses on maintaining secure printed media by using limited-access materials and supplies along with unique or specialized technologies and a multiplicity of printing processes to produce security end products under secure operating procedures and manufacturing/distribution protocols.

There is no specific information or data or date to explain when exactly security printing introduced the technology of holograms in India. But it is believed that in 1991 two or three companies started holography business in India. Holograms, which, in character has high security features and difficult to duplicate by any. Security holograms are very difficult to copy because they are replicated from a master hologram which requires expensive, specialized and technologically advanced equipment. They are used widely in several banknotes around the world, in particular those that are of high denominations. They are also used in passports, credit and bank cards as well as quality products.

Conceptual overview of Indian Hologram industry
From last 15 years there has been a revolution in entire Indian Printing Industry. Since privatization which was helping Indian economy, and emerged with the aim of integrating the Indian economy with the world economy. This drastic change in the country's economy opened the doors for the Indian Print Industry to modernize, by investing in the latest of technology and machinery. Till 2008-09 Indian Printing Industry was doing well but when world economic crisis hit the nation's economy, the industry growth rate came down. The INR 224 billion Indian print industry grew by only 7.31 percent from INR 209 billion in 2011, lower than KPMG in India's expectation of 8.32percent growth last year. Today (2013), as per the report of FICCI and KPMG Indian print industry is 241 billion and expected to reach 340 billion by 2017 with 8.7% CAGR rate.

As stated earlier Indian economy opening to LPG in 1992, post to that it saw boom in the stock market and there was great demand for securing the share certificates because of the prevalence of share certificate frauds that were constantly being discovered. It was the period, when few new generation entrepreneurs in India started exploring business opportunity and security printing had good potential. They started exporting technology for this business from USA. Despite numerous challenges like unavailability of quality raw material in India, heavy import duty and missing critical converting technology they started delivering holograms through innovating manufacturing process and developing raw material in India.

Hologram Manufacturers Association of India (HOMAI), the industry body deal in promotion of holography in India has released its 2nd Financial Study of hologram industry in India. According to the report the hologram market in India is constantly increasing with an average growth rate of 19% per annum in last 5 years.

The hologram market in India, currently estimated at Rs 2.4 billion, is further projected to grow at 15% CAGR for the next 5 years from 2012 as there is a huge demand of holographic features in sectors such as Identity Documents, preventing pharmaceutical products, tobacco and Brand Protection. According to HOMAI, The increasing need for enhanced

security and protection of consumers from counterfeiting products as well as quality services, reasonable price, increases in export are the reason behind this constantly growth.

MAJOR SECTORS FOR HOLOGRAM

With variety of types offered by the various hologram manufacturers, holograms play a vital role in providing highest level of security to product, product packages and documents. Holograms are very much required in almost every industry today. Today, there is predominant increase in forgery cases and, security hologram adds needed security to many various products.

Starts from protecting the goods to packaging and also in tracking the goods after remittance holograms are used. Security Holograms are highly appreciated and demanded by the industries like Pharmaceuticals, Automobiles, Publishing Houses, Private/Government Banks, Government Departments. Excise, Income Tax, IB, SPG etc, Event Tickets, Certification and ID Cards, Electrical Goods, FMCG Products, Apparel manufacturers, Consumer Durables, Clothes, Certificates and Passes.

Key Players of Hologram in India
Holostik India Pvt Ltd is market leader in Indian hologram industry with more than 50% of market share. Other major players are Girija foils pvt ltd, Baja Holographic India pvt ltd, Everest holovision Ltd, Khumbhat Holographics, Karnataka Holotech etc. The members of HOMAI are considered to be the best hologram manufacturers in India.

Data Analysis and Interpretations

1.   **Purpose of Hologram:**

Table 1: Showing for what all purposes firm uses hologram

Frequency	Respondent	Percent
Security	32	64.0
Packaging	18	36.0
Total	**50**	**100**

Interpretation: From the above table we can observe that observe that 64 percent of the respondents are use the hologram for security purpose and remaining are using for packaging. We can also see that for branding and for any other matter companies are not using holograms.

2.   **Security purpose:**

Table 2: Showing how companies use hologram in their daily work life

Frequency	Respondent	Percent
Tracking	6	12
Tracing	5	10
Anti- Fraud	19	38
Anti- Fraud	19	38
Total	**50**	**100**

Interpretation: The above table indicates that 40 percent of the respondent use hologram for anti – counterfeit, which means to protect against counterfeiting their brand. Fourteen percent of them conduct meetings fortnightly. 38 percent out of 50 respondent uses it for protect their brand from fraud. To protect it from theft, warrantee period etc 22 percent of 50 respondents uses the hologram.

3.   **Type of hologram used:**

Table 3: Showing which of the following types are most preferred by the companies

Frequency	Respondent	Percent
Security Holograms	22	44
Holographic Hot Stamping Foils	14	28
Holographic Scratch Labels	3	6
Holographic Paper Labels	8	16
3D Promotional Stickers	3	6
Total	**50**	**100**

Interpretation: It is been observed that 44 percent of the respondents use security holograms regularly whereas 28 percent of them use Holographic Hot Stamping Foils. 16 percent of companies use holographic paper labels and remaining 12 percent mutually circulated between holographic scratch labels and 3d promotional stickers. We should always keep in one thing in mind that holograms are manufactured according to the needs of customers and most of the time customers would think every hologram is security hologram. It is hologram manufacturer differentiate it.

4. Serving the purpose:

Table 4: Shows whether the companies are happy with the service and use of the holograms

Frequency	Respondent	Percent
Very much	48	96
Up to satisfactory level	2	4
Total	50	100

Interpretation: As per the above table a chunk of 96 percent of the respondents have said that they are happy with the served purpose of hologram in their firm. Only four percent of the respondent has said that hologram is serving up to satisfactory level. This is because hologram being a strong security aspect and it is really difficult to copy.

5. Annual spending on hologram:

Table 5: Shows how much companies spend on hologram annually

Frequency	Respondent	Percent
Less than 10 lakhs	50	100.0
Total	50	100

Interpretation: From the above table we can observe that all 50 respondents have said that their annual spending is 10 lakhs. The big reason behind that is hologram is very low in cost for manufacture as well as to purchase.

6. Hologram supplier:
Due to companies security issues and policies 48 respondents have not disclosed the information on their supplier. Only 2 have responded and shared name of the supplier.

7. Information on manufacturer:

Table 7: Shows how companies came across their hologram manufacturers

Frequency	Respondent	Percent
Advertisements	19	38
Directory	23	46
Contacts	7	14
Others	1	2
Total	50	100

Interpretation: The above table explains power of advertisement and trade directory. 46 percent of the respondents have given the highest rating for trade directory, 38 percent of the respondents have rated for advertisements. Advertisements includes in papers, magazines, internet etc. Seven respondents have said they got information on their hologram manufacturer with the help contacts of others.

8. Selecting criteria:

Table 8: Shows what the criteria's are preferred by the companies in selecting their manufacturers

Frequency	Respondent	Percent
Cost	11	22.0
Service	27	54.0
Brand name	1	2.0
Reliability	8	16.0
Innovations	3	6.0
Total	50	100

Interpretation: It can be interpreted from the above table that 54 percent of the respondents have given importance to service than cost. Twenty two percent have given ratings to cost. Eight percent of the response has obtained reliability as criteria and six percent and two percent of the respondents selected innovation and brand name. Through this it can be understood that the service provided by manufacturer matters the most than any other criteria.

9. Registering under governing bodies:

Table 9: Showing how much important it is to registering themselves in governing bodies

Frequency	Respondent	Percent
HoMAI	23	46
IHMA	13	26
Both	12	24
No	2	4
Total	**50**	**100**

Interpretation: As per the above table 46 percent of the respondents have given highest rating HoMAI for registering and twenty six percent of the respondents have rated to IHMA. Interesting aspect is 24 percent respondent have selected both and mere four percent have said it doesn't matter are they registered or not.

10. Importance of registering:

Table 10: Showing how important for companies their hologram manufacturer to be there in governing bodies

Frequency	Respondent	Percent
Highly important	25	50
Important	23	46
Neither important nor unimportant	2	4
Total	**50**	**100**

Interpretation: From the above table it can be inferred that there is high level of importance exists on the registering under any of the governing bodies. About half of the respondents believe that it is highly important to be getting registered and about 46 percent of the respondents have rated as it is important to be registered. Only four percent of the respondent has said that it is neither important nor unimportant on registration.

11. Ratings of suppliers:

Table 11: Showing how effective hologram suppliers where in satisfying the needs of companies and how companies are rating their service

Frequency	Percent	Valid Percent
Very good	45	90
Good	5	10
Total	**50**	**100**

Interpretation: In the above table it can be interpreted that the service provided by hologram manufacturers should be good in supplying the needs of various companies. Because good supply and service 90 percent of respondent have selected as very good service provided by their manufacturer and 10 percent have selected good on the service provided by the manufacturer or suppliers.

12. Substitute for holograms:

Table 12: Showing whether companies feel if there are any other substitutes for holograms

Frequency	Percent	Valid Percent
Bar code	9	18.0
RFID tags	5	10.0
No substitute	36	72.0
Total	**50**	**100**

Interpretation: As per the above table, 72 percent of the respondents strongly agree that there is no near substitute to holograms. Strangely 18 percent of respondent feels that Bar code and 10 percent of respondent feels that RFID tags can be substitute to hologram in spite of manufacturing cost of both is high as compared to holograms.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

1. Out of 50 respondent contacted, registering any one of the governing body was important because that would help company to understand the level of hologram manufacturer. Also it is the one of the important criteria for the companies to select their manufacturer of hologram. Manipal Technologies hologram manufacturing department was not registered under any of the governing body which is restricting them to grow big. These findings can be solved by filling of the registration form of HoMAI and IHMA. While doing research with the help of questionnaire it is found that percent of respondent have selected to HoMAI and percent of people selected IHMA. Important aspect is percent of people have selected to both. So, we can conclude that registering under any of the governing body is important to get new tenders, businesses etc.

2. Another finding during research was not enough product development by R&D team on hologram. Hologram industry, which helps brands from copying or counterfeiting their products, requires good product development efforts from R&D department. Which also helps in acquiring new clients and retaining of existing clients. This issue can be solved by empowering R&D team with full power and financing them whenever they require. To solve this issue not only this financing them but also having a team of researchers on new products available in the market or same work can be outsourced to research firms. This would definitely help them in future to get tenders or to improve their client base. While undertaking research it is found that many respondents have said that they use hologram for security purpose. So, if there is more research and

development on security holograms, would help in development of business in hologram.

3. While researching with help of questionnaire many pharma companies have told that they are using and annually spending within 10 lakhs every year. Not only that sectors like FMCG, Automotive industry using hologram to protect their brand against tampering and so on. It helps the end user differentiate the original and the clone product. Suggestions to this problem is providing proper catalogue of hologram products with proper and relevant information on which hologram helps from counterfeiting of the product, which helps in packaging, which helps in tampering of the product, which helps in tracing of the product etc.

4. Another finding from the research is that users of holograms are so much concerned with protecting against the counterfeiting. As a result they are ready to share some amount on protecting their brand. So, they are expecting proper service from hologram manufacturer. In survey all the fifty respondents were happy with the service provided by their manufacturer. Which clearly indicating service is the key to retain and to get customers in business. In survey most of the respondent have selected to service than the cost and to reliability and to innovations. Suggestions to this finding are that empowering R&D department to come up with good innovative product and same serving with good service as specified by customers. This would definitely help company in improving customers' base and the sales of hologram.

5. While researching with help of questionnaire problem of product differentiation found out and it is currently an issue in hologram industry to solve with. Most of the users are unaware of the types available and its benefits. Hologram is a symbol of security; they can be used in many forms- for industries like Pharma, Retail, and FMCG and so on. It helps the end user differentiate the original and the clone product. The manufacturer fails in educating the customers or the end users the different ways a hologram could be seen, the customer is only aware of hologram as to differentiate from any clone products or to show that a product is original. Thus because of the manufactures lack

of communication about hologram the end user is not aware of the uses and the various means of using a hologram. This is one of the issues in holograms which should be eliminated proper recommendations before it becomes a major issue. Suggestions to this problem is providing proper catalogue of hologram products with proper and relevant information on which hologram helps from counterfeiting of the product, which helps in packaging, which helps in tampering of the product, which helps in tracing of the product etc. If this problem is eliminated properly by any of the hologram manufacturers can fetch them good number of clients from worldwide.

CONCLUSION

Today cloning, forgery and counterfeiting of products is high. Reports say every year about billions of product gets copied and sold. There are many ways have come and gone but counterfeit market is not completely vanished. It is difficult to vanish but holograms can be a step to vanish counterfeit markets not only in India but also in entire world. Holograms are, as stated earlier difficult to copy and it protects the brand from counterfeiting, copying, tracing and also in tracking. That ear has gone where hologram is used only for security. Now it has opened many trends in it like packaging, wrapping, ID cards and also in currency notes (not in India). This research conducted by me has revealed many opportunities in hologram industry. There is positive energy in the industry after new trends emerged other than the security purposes. It is found that there are many opportunities available and company is expected to grab those opportunities with some improvements on their business deals and offerings, which is suggested.

There is and there will be need of holograms to every industry not only to prevent from counterfeiting but also for to differentiate the products and brands from other players. Therefore by providing better kind of service to every client can help in successfully retaining the customers and also in getting them. In other words proper service is the key to retain and make business in the market.

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An Assessment of Customer Satisfaction and Electronic Fund Transfer Services

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ABSTRACT

Electronic Funds Transfer ('EFT') as a modern, global consumer payment method continues to expand rapidly by comparison with credit cards and traditional paper-based forms of payment. In the EFT payments system, consumers are exposed to risks quite different from those in traditional payments instruments. Being a globalized market, the customers seek and demand world class products. In today's global market, the competitive advantage lies in delivering high quality service to the customers. This paper discusses the impact of EFT services on Customer Satisfaction in net banking environment. It is an effort to examine the relationship between the demographic variables and customers satisfaction in internet banking. Present research shows that, demographics of the customers are one of the most important factors which influence the use of internet banking services on EFT services.

***Keywords:** EFT, Customer, Satisfaction and Net Banking.*

INTRODUCTION

EFT emerged as a new technology in the mid 1970s in the USA and the early 1980s in Australia. A technology is essentially joining banking, communications and computer systems. The term loosely covers a system which is replacing paper symbols of value such as cheques withdrawal slips and other payment vouchers with 'invisible' symbols capable of being processed by computers.

The bank customers play a vital role in the banking sector. They are the key players of the banking industry and all the efforts are made by the banks to satisfy the desirable needs of the customers. Indian banking industry has suddenly witnessed a major boom. E-banking is an improvement over traditional banking system because it has reduced the cost of transaction processing, improve the payment efficiency, financial services and improve the banker-customer relationship.

Electronic funds transfer or EFT refers to the computer-based systems used to perform financial transactions electronically. In India the fund transfer are basically done through mail transfer, draft or telegraphic transfer. In case of telegraphic transfer the department of telecommunication was the sole provider of telephone, telex and telegram facilities. With the process of liberalization private operators have started providing alternative voice communication channels through mobile phones and vase communication as an alternative channels for data communication. It was normal for any telegraphic transfer to be credited to the beneficiary's account after delay of 2 to 4 days.

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The transfer of funds from one party to another over electronic media is known as electronic payment system. The different approaches to electronic payments include, card payment, mail order and online payment. Online transactions are a daily activity for almost everyone today. With the introduction of the Internet, online transactions became easy. Most of the big product and service companies made their network presence prominent and started interacting with their customers over the web.

Features and Benefits of Electronic Fund Transfer
• Access the account anytime, anywhere.
• Transfer Funds to own or other Federal Bank Account or Non-Federal Bank Accounts.
• Safe, Secure and Fast method of transferring funds.
• Nomination Facility available.
• Higher Transaction limits can be assigned on submitting an application for the same to the branch.

LITERATURE REVIEW

Electronic Funds Transfer is a form of payment where by funds move from one account to another account by electronic means. It may take place in the same bank or across different banks. The customer requests or authorizes his/her bank to make regular payments to a named payee/beneficiary and it is done within a faster period of time **(Bank of Africa, 2007)**.

Electronic Funds Transfer has mainly two features, the credit transfer and the debit transfer. Credit transfer involves a customer's request which instructs the bank to debit his/her account with funds which are then transferred to another account in the same or another financial institution. On the other hand, debit transfers involve a customer's request where by his account is credited with funds that are received from the customer's debtors following an agreement independently arranged between the customer and his debtors for example utilities. Electronic Funds Transfer is highly emphasized compared to the traditional payment systems because it facilitates secure and timely payments and that's why in February 2007, the system was introduced to educational institutions.

According to **Mugerwa and Ntabadde (2006)**, Electronic Funds Transfer payment is a remedy for long queues and delays in paying school fees. This is supported by **Akampurira (2007)** who emphasizes that the system is faster, efficient and reliable. Therefore considering the loopholes that were embedded in cheques like bouncing, variability in physical characteristics and security features and their lack of a code line to facilitate automatic cheques clearing as postulated by **Jjuuko (2006)**, in 2002 the banking community developed Electronic Funds Transfer standards and in August 2003, the clearing banks started exchanging Electronic Funds Transfer transactions through the clearing house and in February 2007, it was extended to educational institutions. **Ali (2006)** also supported Jjuuko adding that cheques increase queue times and variable to fraud.

Mugerwa and Ntabadde (2006) pointed out that EFT is the solution to the long queues and delays in making payments in banks. This is because it is very fast as an EFT instruction/transaction is processed within eight working hours, compared to cheques which take 4 working days. **Bank of Africa (2010)** added that EFT facilitates secure transfers of funds between banks and is a cheaper payment system for salaries and standing instructions. **Akampurira (2007)** supports the above view but adds on that EFT is a must necessity due to advent of information technology. He further emphasizes that due to technological developments and continuous application of computer systems, its advantageous to use EFT since the banking industry is also influenced by developments in information and technology.

Aula (2010) argues that perception about risk by bank customers is one of the factors that seem to contribute to less usage. The acceptance of any new development especially in banks is weighed in relation to risk. Some customers consider electronic banking as risky, and its probable that they fear to surrender their particulars to third parties as it is when filling Direct Debit Agreements since the applicant has to fill in his/her account number, signature, account name and branch. **Rahmath et al. (2010)** added that peoples' perception of electronic banking as involving major security failures poses risk and hence people shun away from it. This is because they have a perception that government

could access their incomes and there are chances of fraud and there is no information security. This is what exactly **Wamala (2009)** put forward that banks' IT staff collaborate with fraudsters and swindle customers' money.

Mobarek, Asma (2009) in her article **"E-Banking Practices and Customer Satisfaction - A Case Study in Botswana"** cleared that Banks' external environment, including globalization and deregulations, have made the banks highly competitive. Banks find it difficult to compete on price, and need to look at other ways to retain customers. **Sultan Singh, Ms. Komal (2009). Impact of ATM on Customer Satisfaction (A Comparative Study of SBI, ICICI & HDFC bank)** presents the impact of ATM on customer satisfaction. This is a comparative study of three major banks i.e. State Bank of India, ICICI bank and HDFC bank. **Dilijonas et al., (2009)** examined the essential aspects of ATM service quality in Baltic States.

Hamadi, Chakib (2010) in his article "The Impact of Quality of Online Banking on Customer Commitment" demonstrates the existence of a causal relationship between perceived quality, satisfaction and commitment in the context of online banking. The results show that the perceived quality heavily influences the commitment of customers and that this effect is direct and not mediated by satisfaction.

Dash, Manoj Kumar and Mahaptra, D.M. (2006) in their article **"Measuring Customer Satisfaction in the Banking Industry"** explained that the working of the customer's mind is a mystery which is difficult to solve and understanding the nuances of what customer satisfaction is, a challenging task. **Khaled, Al-Hashash and Bahzadi, Abdulrasoul Hussain (2008)** in their article **"Bank's Customer Satisfaction in Kuwait: An Exploratory Study"** explained that Customer satisfaction is a significant subject for most marketers. Their proposal project aimed to investigate customer satisfaction in the retail banking in state of Kuwait.

OBJECTIVES OF THE STUDY

Following are the main objectives of the study:
*   To examine the impact of net banking services in select banks of Indore, Ujjain and Dewas cities

of Madhya Pradesh with special reference to Electronic Fund Transfer services.
*   To Assess the customers satisfaction on EFT services with various Demographic Variables.
*   To study whether wire transfer services are accurate and safe.
*   To study whether bank sites are secured for Fund Transfer Procedure.
*   To know the Customer Perception towards the banking websites which allows consumers & Business to obtain account information?
*   To evaluate the Customer Perception towards Time Saving and Convenient EFT Services.
*   To know the Customer's Perception towards the Fast & Hassel Free EFT Services.

RESEARCH METHODOLOGY

Survey Method has been followed for the study. Both primary and secondary sources of data are used. Well structured questionnaire is designed to elicit necessary data and details from the consumers of retail stores. The secondary data were collected from the books, journals, magazines and web portals.

A proportionate random sampling method was employed to elicit the necessary information from the credit cardholders in three cities i.e. Indore, Ujjain and Dewas. The sample size of 300 respondents, representing 50 in each of 6 private, public and foreign banks viz., ICICI Bank, IDBI bank, SBI bank, HDFC bank, Punjab National bank and State bank of Indore in Indore, Ujjain and Dewas cities, has been duly selected to represent the entire universe.

The primary data collected from the respondents has been analyzed with the help of Statistical Package for Social Sciences (SPSS), 17th version. Chi-square test and ANOVA has been employed for testing the hypothesis.

Relationship of Customers with the Banks
In order to investigate the relationship between e-banking and the level of customer satisfaction, it was important to explore for how long respondents held their accounts in the banks. Table presents the historical perspective on the banking relationship for the surveyed customer.

Table 1: History of Banking Relationship

Duration of the Banking Relationship with the Bank	Frequency	Valid Percent
Less than 1yrs	58	19.33
1-3 yrs	42	14.01
3-5yrs	103	34.33
Above 5 Years	97	32.33
Total	300	100

The results in table indicates that large number of respondents (34.33%) have maintained a banking relationship with the banks between 3 to 5 Years and 32.33 percent of them have maintained such relationship Above 5 Years. However it could be observed that there is relatively high degree of stability of those customers who had maintained long term relationship with the bank they deal with. In order to retain a long term relationship with its customers, the banks should adopt a diversified strategy by providing them financing schemes with different portfolios, innovative banking products, credit cards, internet banking, onsite and offsite ATMs, Mobile banking, PC banking etc. to achieve a higher rate of growth.

Various Dimensions of Service Quality for Drafting of Research Instrument

Reliability
1 It provides accuracy in billing.
2 It helps in keeping records correctly.
3 It performs the service at designated time.
Responsiveness
4 E-banking is very necessary for the development of new economy of India.
5 It improves the quality of customer service.
6 Response of service through e-banking is very prompt and quick.
7 Availability of service is faster in e- banking as compare to manual banking.
Competence
8 Transfer of fund is easier through E-banking.
9 E-Banking provides more punctuality, transparency, accountability.
10 Transfer of funds is faster as compared to manual banking system.
11 It is trusted by young generation.
Access
12 E-Banking services are accessible via Internet banking, Mobile banking, EFT, ECS, ATM.
13 Online purchases of goods and services including online payment are easier.
14 It provides convenient location of service facility(location of ATM, POS terminals)
15 It reduces the waiting time to receive the service.
Courtesy
16 It helps in better customer relationship, attracting and retaining them.

Communication
17 E-Banking explains the service itself.
18 It explains the cost of service being used.
19 It assures the customer that problem will be handled.
20 It explains the trade off between service and cost.
21 E-banking provides up to date information.
22 It also provides information for well educated customers.
23 E-banking provides effective medium of promotion of various schemes.
Credibility
24 E-banking increases the reputation of the banks.
25 It increases the believability, honesty and trustworthiness of the customers in banks.
26 It ensures the ability to fulfill the requirement.
27 Degree of reliability involved in Interaction with customer is more in e- banking.
28 It provides unlimited network to the banks to approach customers.
Security
29 E-banking ensures physical safety of the transaction.
30 Password facility provides confidentiality to transaction.
31 It also increases the financial security.
32 Privacy can be easily maintained.
Understanding
33 It provides individualized attention to the customers.
34 It provides necessary information to the customers.
35 Website of the bank is designed according to the need of the customer.
36 It ensures to provide necessary information to the customer.
37 E-banking learns the specific requirement of the customer.
Tangibility
38 Banks use advanced Computer/IT to serve clients.
39 E-banking provides modern looking equipment.
40 Physical representation of service through plastic card, credit and debit card is easy.
41 E-banking provides 24 hours, 365 days a year service to customers.
42 It helps in reducing the no. of queues in the bank branches.

Hypothesis
Hypothesis 1
Null Hypothesis H_0: There is no association between Demographic Variables and Fast and Hassel Free Services.

Alternate Hypothesis H_1: There is association between Demographic Variables and Fast and Hassel Free Services.

Hypothesis 2

Null Hypothesis H_0: There is no significance between Demographic Variables and Time Saving & Convenient EFT Services.

Alternate Hypothesis H_1: There is significance between Demographic Variables and Time Saving & Convenient EFT Services.

Hypothesis 3

Null Hypothesis H_0: There is no significance between Demographic Variables and Banking websites which allow consumers and business to obtain account information.

Alternate Hypothesis H_1: There is significance between Demographic Variables and Banking websites which allow consumers and business to obtain account information.

Hypothesis 4

Null Hypothesis H_0: There is no significance between Demographic Variables and Accurate and Safe Wire Transfer Services.

Alternate Hypothesis H_1: There is significance between Demographic Variables and Accurate and Safe Wire Transfer Services.

Hypothesis 5

Null Hypothesis H_0: There is no significance between Demographic Variables and Security of Bank site for Fund Transfer Procedure.

Alternate Hypothesis H_1: There is significance between Demographic Variables and Security of Bank site for Fund Transfer Procedure.

DATA ANALYSIS AND INTERPRETATION

Data analysis is a process where researchers analyse the data using statistic methods and relevant software to run tests. Descriptive analysis has been adapted in this study. It is descriptive because descriptive data has been collected through detailed interviews and it is also explanatory since the researcher explained the relationship between the demographic variables and customer satisfaction and how these dimensions affect customer

Table 2: Demographic Profile of the Respondents

Demographic Variables	Categories	Total Count
Gender	Male	207
	Female	93
Age	Below 20 Years	13
	20-30 Years	146
	30-40 Years	82
	Above 40 Years	59
Area	Rural	29
	Urban	271
Profession	Salaried	172
	Employed	64
	Self-Employed	19
	Unemployed	45
Monthly Income (Rs.)	50,000-100,000	78
	100,000-150,000	45
	150,00-200,000	69
	Above 200,000	108

satisfaction. It is somewhat exploratory in nature since researcher explored the relationship between demographic variables and satisfaction based on the previous theory to develop a better understanding about the research area.

Table 3
Hypothesis 1
EFT Services are Fast & Hassel Free

Demographic Variables	Level of Significance	No. of Rows	No. of Columns	Degrees of Freedom	p-Value	Calculated value	Result
Gender	0.05	2	5	4	0.045	9.746	Reject H_0
Age	0.05	4	5	12	0.114	18.05	Accept H_0
Area	0.05	2	5	4	0.000	22.917	Reject H_0
Profession	0.05	4	5	12	0.046	21.297	Reject H_0
Income	0.05	4	5	12	0.002	31.438	Reject H_0

In case of Fast & Hassel Free EFT Services, where the p-value is significant at 5 percent level, the calculated value of Chi-Square (X^2) for Gender is 9.746, Age is 18.05, Area is 22.917, Profession is 21.297 and Income is 31.438. This shows all demographic variables have impact towards the above said service but Area does not influence the EFT Service much.

Above table shows that at 5% level, the p-Value of Chi-Square (X^2) is less than .05 for demographic variables such as Gender (0.045), Area (0.000), Profession (0.046) and Income (0.002). Hence, the researcher rejects the Null Hypothesis H_0 i.e." There is no significance between Demographic Variables (Gender, Area, Profession and Income) and Fast and Hassel Free Services" and accept H_1 i.e. "There is significance between Demographic Variables (Gender, Area, Profession and Income) and fast and Hassel Free Services".

While studying the above table, it is clear that at 5% level, the p-Value of Chi-Square (X^2) is more than .05 for demographic variable Age (0.114), Hence for Age, Researcher accept the Null Hypothesis H_0 i.e. "There is no significance between Demographic Variables (Age) and Fast and Hassel Free Services" and Reject Alternate Hypothesis H_1 i.e. "There is significance between Demographic Variables (Age) and Fast and Hassel Free Services".

Table 4
Hypothesis 2
EFT Services are Convenient and Saves Time

Demographic Variables	Level of Significance	No. of Rows	No. of Columns	Degrees of Freedom	p-Value	Calculated value	Result
Gender	0.05	2	5	3	0.018	10.109	Reject H_0
Age	0.05	4	5	9	0.031	18.403	Reject H_0
Area	0.05	2	5	3	0.118	5.879	Accept H_0
Profession	0.05	4	5	9	0.000	41.222	Reject H_0
Income	0.05	4	5	9	0.007	22.543	Reject H_0

As it is clear from its name, the services happens to be online, thus it depends mostly on the speed of Internet. It is convenient as user can do it from anywhere. At 5 percent significant level, the calculated value of Chi-Square (X^2) for Gender is 10.109, Age is 18.403, Area is 5.879, Profession is 41.222 and Income is 22.543. This shows all demographic variables have impact towards the above said service but Area does not influence the EFT Service much.

Above table shows that at 5% level, the p-Value of Chi-Square (X^2) is less than .05 for demographic variables such as Gender (0.018), Age (0.031), Profession (0.000) and Income (0.007). Hence, the researcher rejects the Null Hypothesis H_0 i.e." There is no significance between Demographic Variables

(Gender, Age, Profession and Income) and Time Saving & Convenient EFT Services" and accept H_1 i.e. "There is significance between Demographic Variables (Gender, Age, Profession and Income) and Time Saving & Convenient EFT Services".

While studying the above table, it is clear that at 5% level, the p-Value of Chi-Square (X^2) is more than .05 for demographic variable Area (0.118), Hence for Area, Researcher accept the Null Hypothesis H_0 i.e. "There is no significance between Demographic Variables (Area) and Time Saving & Convenient EFT Services" and Reject Alternate Hypothesis H_1 i.e. "There is significance between Demographic Variables (Area) and Time Saving & Convenient EFT Services".

Table 5
Hypothesis 3
Banking Websites which Allow Consumers & Business to Obtain Account Information

Demographic Variables	Level of Significance	No. of Rows	No. of Columns	Degrees of Freedom	p-Value	Calculated value	Result
Gender	0.05	2	5	4	0.007	13.954	Reject H_0
Age	0.05	4	5	12	0.001	32.421	Reject H_0
Area	0.05	2	5	4	0.688	2.259	Accept H_0
Profession	0.05	4	5	12	0.007	27.386	Reject H_0
Income	0.05	4	5	12	0.008	26.784	Reject H_0

Above table shows that at 5 percent significant level, the calculated value of Chi-Square (X^2) for Gender is 13.954, Age is 32.421, Area is 2.259, Profession is 27.386 and Income is 26.784. This shows all demographic variables have impact towards the above said service but Area does not influence the EFT Service much. The calculated value of Chi-Square (X^2) is highest for Age which shows that to register for such services; bank requires a certain age while it is lowest for Area which shows its less impact towards the fact.

Above table shows that at 5% level, the p-Value of Chi-Square (X^2) is less than .05 for demographic variables such as Gender (0.007), Age (0.001), Profession (0.007) and Income (0.008). Hence, the researcher rejects the Null Hypothesis H_0 i.e." There is no significance between Demographic Variables

(Gender, Age, Profession and Income) and allow consumers and business to obtain account information" and accept H_1 i.e. "There is significance between Demographic Variables (Gender, Age, Profession and Income) and allow consumers and business to obtain account information".

While studying the above table, it is clear that at 5% level, the p-Value of Chi-Square (X^2) is more than .05 for demographic variable Area (0.688), Hence for Area, Researcher accept the Null Hypothesis H_0 i.e. "There is no significance between Demographic Variables (Area) and allow consumers and business to obtain account information" and Reject Alternate Hypothesis H_1 i.e. "There is significance between Demographic Variables (Area) and allow consumers and business to obtain account information".

Table 6
Hypothesis 4
Wire Transfer Services are Accurate & Safe

Demographic Variables	Level of Significance	No. of Rows	No. of Columns	Degrees of Freedom	p-Value	Calculated value	Result
Gender	0.05	2	5	3	0 .116	5.919	Accept H_0
Age	0.05	4	5	9	0.000	30.624	Reject H_0
Area	0.05	2	5	3	0.294	3.715	Accept H_0
Profession	0.05	4	5	9	0 .010	21.678	Reject H_0
Income	0.05	4	5	9	0 .012	21.154	Reject H_0

Above table shows that at 5 percent significant level, the calculated value of Chi-Square (X^2) for Gender is 5.919, Age is 30.624, Area is 3.715, Profession is 21.678 and Income is 21.154. This shows all demographic variables have impact towards the above said service but Gender and Area does not influence the EFT Service much. The calculated value of Chi-Square (X^2) is highest for Age (30.624) while it is lowest for Area (3.715) which shows its less impact towards the fact.

Above table shows that at 5% level, the p-Value of Chi-Square (X^2) is less than .05 for demographic variables such as Age (0.000), Profession (0.010) and Income (0.012). Hence, the researcher rejects the Null Hypothesis H_0 i.e." There is no significance between Demographic Variables (Age, Profession and Income) and Accurate and Safe Wire Transfer Services" and accept H_1 i.e. "There is significance between Demographic Variables (Age, Profession and Income) and Accurate and Safe Wire Transfer Services".

While studying the above table, it is clear that at 5% level, the p-Value of Chi-Square (X^2) is more than .05 for demographic variables Gender (0.116) and Area (0.294), Hence for Gender and Area, Researcher accept the Null Hypothesis H_0 i.e. "There is no significance between Demographic Variables (Gender & Area) and Accurate and Safe Wire Transfer Services" and Reject Alternate Hypothesis H_1 i.e. "There is significance between Demographic Variables (Gender and Area) and Accurate and Safe Wire Transfer Services".

Table 7
Hypothesis 5
Bank Site is Secure for Fund Transfer Procedure

Demographic Variables	Level of Significance	No. of Rows	No. of Columns	Degrees of Freedom	p-Value	Calculated value	Result
Gender	0.05	2	5	3	0.036	8.532	Reject H_0
Age	0.05	4	5	9	0.010	21.570	Reject H_0
Area	0.05	2	5	3	0.628	1.739	Accept H_0
Profession	0.05	4	5	9	0.078	15.490	Accept H_0
Income	0.05	4	5	9	0.001	27.516	Reject H_0

Above table shows that at 5 percent significant level, the calculated value of Chi-Square (X^2) for Gender is 8.532, Age is 21.570, Area is 1.739, Profession is 15.490 and Income is 27.516. This shows all demographic variables have impact towards the above said service but Area and Profession does not influence the EFT Service much. The calculated value of Chi-Square (X^2) is highest for Income (27.516) showing the users mostly belong to the entire Income group while it is lowest for Area (1.739) which shows its less impact towards the fact.

Above table shows that at 5 % level, the p-Value of Chi-Square (X^2) is less than .05 for demographic variables such as Gender (0.036), Age (0.010) and Income (0.001). Hence, the researcher rejects the Null Hypothesis H_0 i.e." There is no significance between Demographic Variables (Gender, Age and Income) and Security of Bank site for Fund Transfer Procedure" and accept H_1 i.e. "There is significance between Demographic Variables (Gender, Age and Income) and Security of Bank site for Fund Transfer Procedure".

While studying the above table, it is clear that at 5% level, the p-Value of Chi-Square (X^2) is more than .05 for demographic variables Area (0.628) and Profession (0.078), Hence for Area and Profession, Researcher accept the Null Hypothesis H_0 i.e. "There is no significance between Demographic Variables (Area and Profession) and Security of Bank site for Fund Transfer Procedure" and Reject Alternate Hypothesis H_1 i.e. "There is significance between Demographic Variables (Area and Profession) and Security of Bank site for Fund Transfer Procedure".

TESTING OF HYPOTHESES

ANOVA- In statistics, **One-Way Analysis of Variance** (abbreviated **one-way ANOVA**) is a technique used to compare means of two or more samples (using the F distribution). This technique can be used only for numerical data. The ANOVA tests the null hypothesis that samples in two or more groups are drawn from populations with the same mean values

ANOVA

DEMOGRAPHIC VARIABLES	Descriptives								
	Total Count	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
GENDER	Male	207	25.691	4.10672	0.285	25.128	26.254	16	30
	Female	93	25.312	3.73869	0.388	24.542	26.082	18	30
	Total	300	25.573	3.99389	0.231	25.12	26.027	16	30
AREA	Rural	29	26.483	3.62157	0.673	25.105	27.86	18	30
	Urban	271	25.476	4.02566	0.245	24.995	25.958	16	30
	Total	300	25.573	3.99389	0.231	25.12	26.027	16	30
AGE	Below 20 Years	13	25.615	4.35007	1.206	22.987	28.244	16	30
	20-30 Years	146	25.959	3.97731	0.329	25.308	26.61	16	30
	30-40 Years	82	25.427	3.82658	0.423	24.586	26.268	18	30
	Above 40 Years	59	24.814	4.16254	0.542	23.729	25.898	18	30
	Total	300	25.573	3.99389	0.231	25.12	26.027	16	30

PROFESSION	Salaried	172	26.273	3.76204	0.287	25.707	26.84	16	30
	Employed	64	24.719	4.55467	0.569	23.581	25.857	16	30
	Self-Employed	19	24.737	3.88504	0.891	22.864	26.609	18	30
	Unemployed	45	24.467	3.60303	0.537	23.384	25.549	16	30
	Total	300	25.573	3.99389	0.231	25.12	26.027	16	30
INCOME	50,000-100,000	78	26.397	3.45411	0.391	25.619	27.176	16	30
	100,000-150,000	45	24.889	4.39122	0.655	23.57	26.208	16	30
	150,000-200,000	69	23.841	4.2448	0.511	22.821	24.86	16	30
	Above 200,000	108	26.37	3.65215	0.351	25.674	27.067	18	30
	Total	300	25.573	3.99389	0.231	25.12	26.027	16	30

ANOVA						
VARIABLES		Sum of Squares	df	Mean Square	F	Sig.
GENDER	Between Groups	9.217	1	9.217	0.577	0.448
	Within Groups	4760.17	298	15.974		
AREA	Between Groups	26.551	1	26.551	1.668	0.197
	Within Groups	4742.84	298	15.916		
AGE	Between Groups	57.546	3	19.182	1.205	0.308
	Within Groups	4711.84	296	15.918		
PROFESSION	Between Groups	199.408	3	66.469	4.305	0.005
	Within Groups	4569.98	296	15.439		
INCOME	Between Groups	349.831	3	116.61	7.81	0.000
	Within Groups	4419.56	296	14.931		

The hypothesis test for analysis of variance for 300 populations:

H_0 : $\mu_1 = \mu_2 = ... = \mu300$

H_a : not all μ_i (i = 1, ... 300) are equal

A one-way ANOVA between Demographic Variables and Electronic Fund Transfer Services was conducted to examine the effect of Gender, Age, Area, Profession and Income on the usage of Internet Banking Services with reference to EFT Services.

The test statistic is seen to be 0.577 for Gender, 1.668 for Area, 1.205 for Age, 4.305 for Profession and 7.81 for Income with the p-value < .05 for all the demographic variables i.e. for Gender is 0.448, for Area is 0.197, for Age is 0.308, for Profession is 0.005 and for Income is 0.00. Hence, researcher rejects Null Hypothesis H0 i.e. "There is no significance between demographic variables (Profession and Income) and

EFT Services" and Accept Alternate Hypothesis H_1 i.e. "There is significance between demographic variables (Profession and Income) and EFT Services".

The test statistic shows that the p-value < .05 for the demographic variables Gender (0.448), Area (0.197) and Age (0.308). Hence, researcher Accept Null Hypothesis H_0 i.e. "There is no significance between demographic variables (Gender, Area and Age) and EFT Services" and rejects Alternate Hypothesis H_1 i.e. "There is significance between demographic variables (Gender, Area and Age) and EFT Services".

The above ANOVA table also reveals that the maximum F-Value is 7.81 for Profession which shows that the EFT Service users mostly belong to various groups of Profession and it is least for Gender i.e. 0. 577 showing that Gender has less impact on the EFT Services.

FINDINGS OF THE RESEARCH

From the research and analysis undertaken for the paper, the principal findings are as follows.

1. EFT debit as a payment method continues to expand rapidly by comparison with credit cards and traditional paper-based forms of payment.
2. Previous literature on EFT regulation is limited and fragmented. Research and commentary on EFT regulation to date has largely been domestic-focused and prepared in isolation by the respective institutional stakeholders involved.
3. Consumers at present do not benefit from adequate disclosure of the terms and conditions of use before obtaining EFT products and/or services. In practice, not all financial institutions have copies of their terms and conditions of use available for perusal prior to signing an EFT account application form ahead of obtaining EFT access.
4. It was found out that the acceptance rate of EFT is low and declining. A number of respondents pointed out lack of regular, active and relevant bank accounts (in commercial banks) and which had no conditionality like loan attachment because it is hard for them to manage multiple deductions from their accounts.

CONCLUSION

The need to achieve customer satisfaction lies in its ability to deliver better quality products to the customers. Therefore, customer satisfaction is considered as a pre-requisite for customer retention, loyalty and convenience which ultimately helps in realizing the goals of profitability, market share, growth, return on investment, productivity etc. considering all above said facts with various demographic variables, it has found that they have impact towards Fast & Hassel Free EFT Services and are convenient, saves time except Area. Since EFT services happens to be online therefore area has less impact towards it.

Public sector banks are providing more modern looking equipment to its customers whereas private sector banks are providing more physical facilities to customers whereas foreign banks concentrate on customer care. Regarding the competence dimension, both the sectors are giving the same service in this regard. Both the sector's services are trusted by the young generation, no hindrance in transfer of fund. In both the sectors the e-banking services are more punctual, transparent and accountable. Although there is no statistical difference found in two sectors but public sector is more trusted by the young generation than private sector. As far as the transfer of funds are concerned private sector banks are offering it a better way than the public sector banks.

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Do Stocks, Bonds and Hedge funds exhibit the Linear behaviour: Evidence from the Indian Capital Market

"The four most dangerous words in investing are: 'this time it's different."
Sir John Templeton

Himanshu Gupta*

ABSTRACT

One of the major concerns in today's world of economic finance, especially investments in asset classes like stocks and bonds, is whether the returns on these asset classes are linear or non-linear. Further, in empirical finance, when the time series return are considered, then the linearity condition becomes an essential measure and hence accounts properly. This paper examines the linearity behaviour of stock, bond and hedge fund in univariate and bivariate mode. The findings from the empirical evidence reveal that in univariate and bivariate mode with ordinary hypothesis test all the three asset class returns are non-linear. However, it was found that all these three asset class returns show heteroskedasticity and auto-correlation which adulterate the error disturbances used in the hypothesis tests. In addition, when these tests are re-assessed in heteroskedasticity and auto-correlation consistent context, the finding of the hypothesis testing result illustrates that all the three asset class returns persists linear conditional mean in univariate and bivariate mode. The outcome of this study is extremely useful to the institutional asset allocation fund managers or portfolio managers and also to the individual investors as it helps them in understanding the Indian capital market behavior better.

Keywords: Autocorrelation, Heteroskedasticity, Investment, Linearity

INTRODUCTION

One of the major concerns in todays' world of economic finance, especially investments in asset classes like stocks and bonds, is whether the returns on these asset classes are linear or non-linear. As it is well known that future is uncertain and hence in finance, there is no theory which can guide for the prior expectations of asset returns. Numerous researches have been conducted to examine the behaviour of asset classes returns. Though, in theory of finance the assumption of linearity has been adopted by various researchers (Markowitz (1952, 1959); Fama and French (1992, 1993); Black and Litterman (1992)) in their respective models, but that assumption is not essential. Further, it is important to understand that in empirical finance, when the time series return are considered, then the linearity condition becomes an essential measure and hence accounts properly. In addition, the linearity condition becomes more important, especially in the case of hedge funds, where the ret urns are non-normal in nature. Also, the dynamic nature of hedge fund strategies like the use of derivatives, short-selling and leverages (Lo (2001)) make it differ from the behaviour of stocks and bonds returns. As a consequence, for better portfolio management, the need for testing the linearity between hedge funds, stocks and bonds is warranted.

Several studies test the linearity of the asset returns by stating that the returns in the asset class are linear wherein the financial model shows linearity in the mean with constant error term also called white noise (Granger and Teräsvirta (1993); Lee, White and Granger (1993); Campbell et al. (1997)). The

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detection of white noise such as the presence of serial correlation and Auto Regressive Conditional Heteroskedasticity effects, in the return distribution has been examined by various researchers (White (1980); Gilbert and Zemcik (2005)), but the linearity in the mean has acknowledged less attention. Also, in empirical finance, many asset pricing models like CAPM (capital asset pricing model) (Sharpe (1964)) and portfolio theories like Markowitz (1952, 1959) modern portfolio theory is based on linearity assumption and thus, to run these models the asset class returns should be linear.

Despite the fact that the hedge fund returns are non-normal, several studies have examined the features of hedge fund returns and how they behave in a portfolio mix with stocks and bonds (Lo (2002); Getmansky et al. (2004); Binachi et. al. (2009)). In addition, these studies have shown the non-normal behaviour of hedge fund returns and highlighted that the hedge fund returns are serially correlated. Further, many studies have shown that the hedge fund return distributions are not linear (Lo (2001); Agarwal and Naik (2004); Huber and Kaiser (2004)). Nevertheless, the phenomenal growth of hedge fund industry inspires the researchers to scrutinize this alternative investment class in the literature.

This paper conducts the test for linear conditional mean in two set of modes. Firstly, in the univariate mode, the linear behaviour of stocks, bonds and hedge funds returns are observed independently. Secondly, in the bivariate mode, this study observes the linear behaviour of stocks, bonds and hedge funds returns together taking one asset class as dependent variable and one asset class as independent variable. Further to investigate the linearity between these three asset classes this study employs the hypothesis testing method as the previous studies normally considered the estimation techniques (Lo (2001, 2002); Agarwal and Naik (2004); Getmansky et al. (2004)). The hypothesis formulation has been detailed in the subsequent part of this paper.

It is important to understand that one cannot know about the behaviour of these asset classes. The reason could be explained by the fact that these returns possess two main error disturbances term namely, heteroskedasticity and auto-correlation. Further, White (1980) and Granger and Terasvirta (1993) presages that the error term may cause

spurious results in testing linearity if they are not independent and identically distributed (henceforth i.i.d). To address, this paper focuses on to identify and control of the above conventional features of empirical finance returns by applying heteroskedasticity and auto-correlation consistent (henceforth HAC) method so that the effect of error term should be minimized during the linearity test.

The findings from the empirical evidence reveal that in univariate and bivariate mode with ordinary hypothesis test the stocks, bonds and hedge funds are non-linear. However, it was found that all these three asset class returns show heteroskedasticity and auto-correlation which adulterate the error disturbances used in the hypothesis tests. In addition, when these tests are re-assessed in HAC context, the finding of the hypothesis testing result illustrates that all the three asset class returns persists linear conditional mean in univariate and bivariate mode.

The rest of the paper is outlined as follows. Section two provides a brief overview of the associated literature. Section three documents the conventional model applied for testing linearity. Section four describes the data employed. Section five examines the results while the final Section six bids concluding remarks.

LITERATURE REVIEW

It may be notice that, in theory of finance, there exist no condition for asset returns to be linear or non-linear. Despite this, the presence of non-linearity in the return series has been explained by many researchers (Tong (1990); Terasvirta (2005)). The theoretical foundation has come from the notion of market equilibrium with market resistances and transaction costs. Several studies have assumes that in the presence of market resistances and transaction costs, the asset prices partially deviates which in turn misprice the asset value from the market equilibrium (He and Modest (1995); Sercu et al. (1995)). Further, the studies of Black and McMillan (2004) and McMillan (2001, 2003, 2005) have paid attention to examine the non-linearity pattern without presuming the transaction costs actually affect the asset price. In addition they argue in two perspectives; first, they argue that investors behaviour itself possess thoughtful biases which not be consistent with von Neumann-Morgenstern

(VNM) (1944) maximize expected utility theorem and thus cause the non-linear movement of asset prices. Second, they argue that the non-linearity in asset prices could also be explained by the restrictions of arbitrage theory propounded by Shleifer and Vishny (1997). Generally, the above literature provides the rationale that the non-linearity persists in narrow setting. However, there is little direction provide by these rationale, especially in the context of portfolio construction, to observe the linearity of monthly asset returns. As a consequence, this study focuses on to observe the linearity of asset classes in the low frequency setting of monthly returns.

In Social Science, especially in econometrics, linear behaviour of variables has been examined by several studies. The first test in this line was conducted by Ramsey (1969) who applies a functional method of a linear model to identify non-linearity in the data by using Regression Specification Reset Test (RESET). Kennan (1985) re-specified the Ramsey (1969) test by eliminating multi-collinearity. Further, Tsay (1986) extend the work of Kennan (1985) by developing a test which can examine linear in conditional mean in more multiplicative forms which includes quadratic and cross-product terms. In addition, Terasvirta, Lin and Granger (1993) developed a test (also named V23 test) extend the work of Tsay (1986) by examining the cubic term (in addition to quadratic and cross-product term) of the independent variable to identify non-linearity. Hence, to examine the linearity of stock, bond and hedge fund returns, this study employs the latter two tests i.e., the Tsay (1986) and the Terasvirta et al. (1993) V23 test.

However, the aforementioned linearity tests have been employed by numerous of researchers in different empirical perspectives namely in univariate, bivariate and multivariate modes. Several studies have revealed, especially in the context of emerging equity market (Hsieh (1991); Poshakwale (2002)), that the behaviour of stock returns in univariate setting are non-linear. In addition, Opong et al. (1999) have shown the similar findings for the developed equity market. On contrary, Binachi et al. (2009) has found that in univariate mode stock returns are linear in conditional mean. As far as bond literature is concern, the studies are varied and inconsistent. First, Ait-Sahalia (1996) and Stanton (1997) in their

study revealed that bond rates possess non-linearity behaviour whereas Jones (2003) contradicts these results. In addition and contrary Binachi et al. (2009) has found that in univariate mode bond returns are linear in conditional mean. Also, Liew et al. (2010) have revealed that government bond returns of G7 countries are non-linear and stationary. Further, in hedge fund literature not many studies examine the linear behaviour in univariate setting. Exception is the study done by Binachi et al. (2009) who revealed that in univariate mode, hedge fund returns are linear in the conditional mean.

Next, the study of bivariate mode is important because in the portfolio construction process the mean-variance investors presume the linearity when involving two or more asset classes. In their study, Desai and Bharati (1998) by applying different linearity tests identify the (non)linear nature of stock and bond returns. In contrast, Binachi et. al. (2009) has revealed that both stock and bond returns in bivariate mode are linear conditional mean. Also, Guidolin et al. (2009) applied various linear and non-linear tests to identify the non-linear behaviour of stock and bond returns of G7 countries. Further, the bivariate linearity studies on hedge fund recommend that most hedge fund returns displays non-linear pattern and option like characteristics with the returns of traditional asset classes. Fung and Hsieh (2001) evaluate the global stocks with the specific hedge fund strategies and found that the payoffs have a U-shaped or a look back straddle. In other study, Mitchell and Pulvino (2001) evaluated the non-linear payout of risk arbitrage hedge funds with U.S weighted stock index by employing a piecewise linear regression model. Favre and Galeano (2002) also reveal that the hedge fund returns are non-linear by applying regression against conventional asset classes. In an extended study Agarwal and Naik (2004) applied the linearity test on different equity based hedge fund strategies and found the presence of non-linearity as the hedge fund returns are similar to option like returns. In the same strand Huber and Kaiser (2004) notice the returns of different option trading strategies and found the significance of returns in Sharpe (1992) investment framework and thus, conclude the presence of non-linearity in the hedge fund returns. Further, Agarwal et al. (2009) revealed that due to the presence of higher moments in the return distribution, hedge fund returns are

non-linear. Also, Diez de los Rios and Garcia (2011) applied the various statistical tests and found the non-linearity in the portfolio of option based hedge fund strategies.

The study of the above cited literature suggests some of the problems that need to be addressed. First, extensive research has been conducted on the subject in various international markets but Indian market has been still in the nascent stage relative to the mammoth growth of the bourses have witnessed. This study makes an attempt to fulfill this gap by examining the data from the Indian capital market to identify the linearity behaviour of three most important asset classes in the world viz, stocks, bonds and hedge funds. Secondly, in empirical finance, especially in asset returns, the error disturbances term pose the problem of HAC. In examining the non-linearity between the asset classes returns the joint effect of both have to be addresses properly. This study makes an attempt to account this issue by adjusting the effects of HAC in testing linear conditional mean. Thirdly, none of the above cited study focused on examining the linearity of hedge fund returns with stocks and bonds from a viewpoint of mean-variance investor. This study investigates the bivariate and multivariate tests in a way which is reliable to a mean-variance investor for making portfolio selection decisions. We now continue to detail the methodological stipulations of this study.

METHODS AND MODELS EMPLOYED

The linearity behaviour between the three asset class are examine in univariate and bivariate mode by applying procedural test from Tsay (1986) and Terasvirta et al. (1993).In general form, the linearity relationship among the variables in univariate and bivariate mode should be defined as follows:

$$y_t = \varphi_0 + \sum_{i=1}^{p} \varphi_i y_{t-i} + \varepsilon_t \qquad (1)$$

$$y_t = \varphi_0 + \varphi_1 x_t + \varphi_2 x_t + \ldots + \varphi_i x_t + \varepsilon_t \qquad (2)$$

where, y_t denotes the return of dependent variable, x_t denotes the return of independent variable, ε_t represents the error disturbances term, φ_0 is the

regression intercept, φ_1 is the slope of regression coefficients and p is the lag order

The condition of linearity can be satisfied by the aforementioned univariate and bivariate model (Equation 1 & 2, respectively) if and only if the non-linear parameter φ_i makes no impact in the model improvement and also at the same time controlling the effect of ε_t. Hence, this study considered the hypothesis test which can be stated as:

$H_0: \varphi_i = 0$ for all $i > 0$ after the adjustment for HAC in ε_t

H_a: at least one of the φ_i is not equal to 0 for all $i > 0$ after the correction for HAC in ε_t

To observe the above linearity hypothesis this study applies the following two tests:
1. Tsay (1986) test
2. Terasvirta, Lin and Granger (1993) V23 test

Tsay (1986) test
To observe the undetermined (non) linearity Tsay (1986) developed the improve version of Kennan (1985) test by explicitly looking for cross-product and quadratic serial dependence in the data. The Tsay (1986) test in univariate mode and bivariate mode can be defined respectively as:

$$\dot{y}_t = \varphi_0 + \sum_{i=1}^{p} \varphi_i y_{t-i} + \sum_{i=1}^{p}\sum_{j=i}^{p} \delta_{ij} y_{t-i} y_{t-j} + \varepsilon_t \qquad (3)$$

$$\dot{y}_t = \varphi_0 + \varphi_1 x_t + \sum_{i=0}^{p}\sum_{j=i}^{p} \delta_{ij} x_{t-i} x_{t-j} + \varepsilon_t \qquad (4)$$

where, ε_t represents the error disturbances term, p is the lag order (in case of bivariate mode it is equal to zero), φ_0 is the regression intercept, φ_1 is the slope of regression coefficients, δ_{ij} represents the regression parameter for every auxiliary regressor having cross-product &quadratic terms, t denotes the sample size and y_t & x_t denotes the return of dependent and independent variable, respectively. The Tsay (1986) generalized univariate model (equation 3) and bivariate model (equation 4) examines the null hypothesis $H_0: \delta_{ij} = 0$ against the alternative hypothesis $H_0: \delta_{ij}$? 0 by comparing the SSR_1 in equation 3 & 4 with the SSR_0 in equation 1 &

2 for univariate and bivariate mode, respectively. Further, the Tsay (1986) test F-statistic is asymptotically distributed as $F_{m,t-m-p-1}$ with t-m-p-1 degrees of freedom and m auxiliary regressors.

Next, to account for the adjustment of HAC in ε_t in the Tsay (1986) test, the study employs an F-statistic which is re-calculated as a set of Wald tests that adjust the HAC. The Tsay (1986) test Wald statistics can be stated as:

$$W_{T,W} = T(\hat{\theta}_T^R - 0)' \hat{\Omega}_{T,W}^{-1} (\hat{\theta}_T^R - 0) \quad (5)$$

$$W_{T,NW} = T(\hat{\theta}_T^R - 0)' \hat{\Omega}_{T,NW}^{-1} (\hat{\theta}_T^R - 0) \quad (6)$$

where, $W_{T,W}$ and $W_{T,NW}$ are the Tsay (1986) test Wald statistics for White (1980) heteroskedasticity-consistent and Newey and West (1987) HAC, respectively, $\hat{\Omega}_{T,W}^{-1}$ and $\hat{\Omega}_{T,NW}^{-1}$ are the Tsay (1986) test regression residuals sample co-variance matrix for the White (1980) heteroskedasticity-consistent and Newey and West (1987) HAC, respectively, $\hat{\theta}_T^R$ is the vector of Tsay (1986) test regression estimators and T is the total number of observed residuals. Further, it is important to note that the null hypothesis of the Tsay (1986) Wald test J statistic is asymptotically chi-squared.

Terasvirta, Lin and Granger (1993) V23 Test
Though in the literature of testing (non)linearity the Tsay (1986) test is considered as the benchmark, yet a more controlling test was developed by Terasvirta et. al. (1993) also known as V23 test. The V23 test examines not only the cross-product and quadratic terms but also examines the cubic terms of the independent variable. The V23 test in univariate mode and bivariate mode can be defined respectively as:

$$y_t = \varphi_0 + \sum_{i=1}^{p} \varphi_i y_{t-i} + \sum_{i=1}^{p}\sum_{j=i}^{p} \delta_{ij} y_{t-i} y_{t-j} + \sum_{i=1}^{p}\sum_{j=i}^{p}\sum_{k=j}^{p}$$

$$\delta_{ijk} y_{t-i} y_{t-j} y_{t-k} + \varepsilon_t \quad (7)$$

$$y_t = \varphi_0 + \varphi_1 x_t + \sum_{i=0}^{p}\sum_{j=i}^{p} \delta_{ij} x_{t-i} x_{t-j} + \sum_{i=0}^{p}\sum_{j=i}^{p}\sum_{k=j}^{p}$$

$$\delta_{ijk} x_{t-i} x_{t-j} x_{t-k} + \varepsilon_t \quad (8)$$

where, ε_t represents the error disturbances term, p is the lag order (in case of bivariate mode it is equal to zero), φ_0 is the regression intercept, φ_1 is the slope of regression coefficients, δ_{ij} represents the regression parameter for every auxiliary regressor having cross-product & quadratic terms, δ_{ijk} represents the regression parameter for every auxiliary regressor having cubic terms, t denotes the sample size and y_t & x_t denotes the return of dependent and independent variable, respectively. The Ter svirta et.al. (1993) generalized univariate model (equation 7) and bivariate model (equation 8) examines the null hypothesis $H_0 : \delta_{ij} = \delta_{ijk} = 0$ against the alternative hypothesis $H_0 : \delta_{ij} \quad \delta_{ijk} \quad 0$ by comparing the SSR_1 in equation 7 & 8 with the SSR_0 in equation 1 & 2 for univariate and bivariate mode, respectively. Further, the V23 test F-statistic is asymptotically distributed as $F_{m,t-m-p-1}$ with t-m-p-1 degrees of freedom and m auxiliary regressors.

Next, to account for the adjustment of HAC in ε_t in the V23 test, the study employs an F-statistic which is re-calculated as a set of Wald tests that adjust the HAC. The V23 test Wald statistics can be stated as:

$$W_{V23,W} = T(\hat{\theta}_{V23}^R - 0)' \hat{\Omega}_{V23,W}^{-1} (\hat{\theta}_{V23}^R - 0) \quad (9)$$

$$W_{V23,NW} = T(\hat{\theta}_{V23}^R - 0)' \hat{\Omega}_{V23,NW}^{-1} (\hat{\theta}_{V23}^R - 0) \quad (10)$$

where, $W_{(V23,W)}$ and $W_{(V23,NW)}$ are the V23 test Wald statistics for White (1980) heteroskedasticity-consistent and Newey and West (1987) HAC, respectively, $\hat{\Omega}_{V23,W}^{-1}$ and $\hat{\Omega}_{V23,NW}^{-1}$ are the V23 test regression residuals sample co-variance matrix for the White (1980) heteroskedasticity-consistent and Newey and West (1987) HAC, respectively, $\hat{\theta}_{V23}^R$ is the vector of V23 test regression estimators and T is the total number of observed residuals. Further, it is important to note that the null hypothesis of the V23 Wald test J statistic is asymptotically chi-squared.

SOURCES OF DATA

To account for the data for stocks, bonds and hedge funds this study considered the major indices which are designed to measure the performance of the Indian capital universe as the proxies for all the three asset classes, i.e., the study employs the S&P BSE Sensex and CNX Nifty Equity Index as the proxy for stocks, the NSE G-SEC and ICICI I-Bex India Bond

Index as the proxy for bonds and the Eureka Hedge India Hedge Fund Index as the proxy for hedge fund returns. Data have been sampled from January 2000 to December 2014 consisting of 180 observations of all the indices mentioned above.

To minimise the impact of systematic risk, the study employed monthly index returns for each investment rather than employing the returns of individual bonds, stocks or hedge funds. Also, the study involves the estimation of multi-asset portfolios; hence, it employs periodic monthly excess (original return - risk free rate) returns. The choice of taking risk-free rate is of utmost importance. The study uses the average of worst three annualized yield of one year maturity T-bills from 2000 to 2014. The National Stock Exchange T-bill index is used for the proxy for risk-free rate of

return and it was observed that the worst three yields arose in the year 2010, 2004 and 2003 respectively and the average is found to be 5.04% annually (.42% monthly).

EMPIRICAL RESULTS AND FINDINGS

Analysis of Summary Statistics

Table 1 summarizes the statistical summary of all the indices used in this study, which reflects the significant features of financial market like mean, standard deviation (second moments), negative skewness (third moments), excess kurtosis (fourth moments), the classical performance measure Sharpe ratio and the Jarque-Bera (JB) normality test statistics value. It is evident from Table 1 that all the six indices have rejected the normality test on the basis of JB test statistic p-value.

Table 1: Summary Statistics

This tablerepresents the descriptive statistical summary of the excess monthly index returns of the three asset classes used in this study. Sampled data contains 180 observations from January 2000 to December 2014. * shows the data is statistically significant at the 1%confidence level.					
Sector	**Stock Index**		**Bond Index**		**Hedge Fund Index**
	S&P BSE SENSEX	**CNX NIFTY Equity Index**	**NSE G-SEC India Bond Index**	**ICICI I-Bex India Bond Index**	**EurekaHedge India Hedge Fund Index**
Variable					
Mean	0.78	0.80	0.15	0.40	0.47
Standard Deviation	7.08	7.19	1.84	1.94	5.84
Skewness	-0.18	-0.26	0.74	1.40	0.19
Excess Kurtosis	1.31	1.59	7.60	8.97	1.29
Median	0.79	1.04	0.10	0.36	1.28
Maximum	27.84	27.65	10.40	12.36	23.81
Minimum	-24.31	-26.83	-6.71	-5.50	-16.73
Jarque- Bera Statistic	12.57	19.15	422.00	623.68	13.59
Jarque- Bera p-value	0.0019*	0.0001*	0.0000*	0.0000*	0.0011*
Sharpe Ratio	0.110	0.111	0.083	0.207	0.080

Also it is evident from Table 1 that investor desire of higher returns in the market come at the cost of high second moments and negative third moments in the return distribution. In addition, it can be observed that, the hedge fund have a lesser monthly mean

return than stocks monthly mean returns over the sample period studied. Also, all the six indices have exhibits positive excess kurtosis which indicates the most of the data values in the return series was concerted around the mean with thicker tails.

Further, the Sharpe ratio was high for the bond index (ICICI I-Bex) showing the importance of fixed income securities which provides security against the negative market movement.

Analysis of Univariate Results of Tsay (1986) and Terasvirta et. al. (1993) V23 Test
Table 2 represents the results of F-test statistic p-values for Tsay (1986) and Terasvirta et. al. (1993) V23 test in univariate mode with lag orders one and two. In addition, Table 2 reports three p-values for each test. The first p-value is estimated from the ordinary linearity conditional mean test. The second p-value is assessed from the White (1980) heteroskedasticity adjusted test while the third and final p-value is assessed from the Newey and West (19987) HAC test.

It is evident from Table 2 that for Tsay (1986) test with lag order 1 and 2, all the p-values for stocks and hedge funds are insignificant at 5% level while in bonds, especially with lag order 2, all the p-values are statistically significant at 1% level. In contrast, the ordinary Terasvirta et. al. (1993) V23 tests with lag order 1 report frequent p-values for stocks and bonds which are statistically significant at 5% but are insignificant at 1% level. However, when these tests are re-assessed in a heteroskedasticity consistent and HAC framework, Table 2 reports statistically insignificant p-values at 5% level. In addition, the Terasvirta et. al. (1993) V23 tests with lag order two reports all insignificant p-values for stocks and hedge funds at 5% level while all the p-values for bonds are statistically significant at 1% level.

Table 2: Univariate Results of Tsay (1986) and Terasvirta et. al. (1993) V23 Test

This table reports the F- Statistic p-values for the Tsay (1986) and Terasvirta et. al. (1993) V23 tests in a univariate mode with lag orders of one and two. Three p-values are estimated for each test. The first p-value is assessed from the ordinary test. The second and third p-value is from the test adjusted as a Wald test applying a White (1980) heteroskedasticity-consistent and a Newey-West (1987) HAC covariance matrix, respectively. * and ** denotes significant at 1% and 5%, respectively.

INDEX	F-Test (P-Value)	Tsay p=1	Tsay p=2	V23 p=1	V23 p=2
S&P BSE Sensex	**Ordinary Test**	0.6324	0.8465	0.0112**	0.1504
	Wald (White)	0.7297	0.7488	0.3675	0.4319
	Wald (Newey-West)	0.7273	0.6954	0.2147	0.3274
CNX Nifty	**Ordinary Test**	0.6401	0.8996	0.0212**	0.1539
	Wald (White)	0.7179	0.8565	0.3943	0.4729
	Wald (Newey-West)	0.7098	0.8285	0.3158	0.3775
ICICI I-Bex	**Ordinary Test**	0.0888	0.0004*	0.0125**	0.0004*
	Wald (White)	0.4129	0.0002*	0.6245	0.0000*
	Wald (Newey-West)	0.2443	0.0001*	0.6039	0.0000*
NSE G-Sec	**Ordinary Test**	0.0473**	0.0002*	0.0889	0.0015*
	Wald (White)	0.1030	0.0003*	0.2742	0.0000*
	Wald (Newey-West)	0.0756	0.0009*	0.1857	0.0000*
Eureka Hedge India Hedge Fund Index	**Ordinary Test**	0.8152	0.6319	0.5366	0.4826
	Wald (White)	0.7767	0.5697	0.1973	0.1146
	Wald (Newey-West)	0.7669	0.5394	0.0991	0.0644

The inferences that can be drawn from the above univariate results show that any (non) linearity identified in ordinary tests is because the error disturbances terms of the underlying tests possess heteroskedasticity and auto-correlation. In addition, the empirical findings reveal that there is no statistical evidence which can show that the (non) linear functions of lagged returns can explain the current returns of all three asset classes. Finally, the null hypothesis of linearity conditional mean after the adjustment for HAC in ε_t, cannot be rejected and hence conclude that in a univariate mode, all the asset classes (i.e., stocks, bonds and hedge funds) returns used in this study are linear conditional mean (especially for lag order 1).

Analysis of Bivariate Results of Tsay (1986) and Ter svirta et. al. (1993) V23 Test

Table 3 & Table 4 represent the results of F-test statistic p-values for Tsay (1986) and Ter svirta et. al. (1993) V23 test in bivariate mode with lag order zero, respectively. In addition, Table 3 & Table 4 shows three different p-values for each possible combination. The first p-value is estimated from the ordinary linear conditional mean test. The second and third p-value are assessed from the Wald adjusted test by applying a White (1980)

heteroskedasticity consistent and a Newey-West (1987) HAC covariance matrix, respectively.

It is evident from Panel A of Table 3 that for the Tsay (1986) bivariate test with stock as dependent variable all the three p-values are statistically insignificant at 5% level except the ordinary Tsay (1986) test with stocks (dependent variable) and bonds (independent variable) shows rejection of null hypothesis of linear conditional mean at 5% level. However, when these tests are re-assessed in a heteroskedasticity consistent and HAC framework, all p-values becomes insignificant at 5% level. Hence, the result from the Tsay (1986) bivariate test suggests that stocks and other two asset classes i.e., bonds and hedge funds are linear conditional mean in a bivariate mode.

Similarly, it is evident from Panel B of Table 3 that for Tsay (1986) bivariate test with bond as dependent variable all the three p-values are statistically insignificant at 5% level. Hence, the null hypothesis of linearity conditional mean cannot be rejected, which implies that for the Tsay (1986) bivariate tests, bonds and other two asset classes i.e., stocks and hedge funds are linear conditional mean in a bivariate mode.

Table 3: Bivariate Results of Tsay (1986) Test

The table reports the F- Statistic p-values for the Tsay (1986) test in a bivariate mode with lag order zero. For each possible combination three p-values are calculated. The first p-value is assessed from the ordinary test. The second and third p-value are assessed from the Wald adjusted test by applying a White (1980) heteroskedasticity consistent and a Newey-West (1987) HAC covariance matrix, respectively. * and ** denotes significant at 1% and 5%, respectively.

Dependent Variable	Independent Variable			
Panel A: Stock vs. Bond and Stock vs. Hedge Fund				
Bond and Hedge Fund Index F-Test (p-value)		ICICI I-BEX	NSE G-SEC	Eureka Hedge India Hedge Fund Index
S&P BSE SENSEX	Ordinary Test	0.1607	0.0197**	0.0872
	Wald (White)	0.2741	0.1932	0.3015
	Wald (Newey-West)	0.1416	0.0874	0.3016
CNX NIFTY	Ordinary Test	0.1753	0.0183**	0.0974
	Wald (White)	0.3305	0.2176	0.3166
	Wald (Newey-West)	0.1787	0.0910	0.2980

Panel B: Bond vs. Stock and Bond vs. Hedge Fund			S&P BSE SENSEX	CNX NIFTY	Eureka Hedge India Hedge Fund Index	
Stock and Hedge Fund Index ⟶ F-Test (p-value)			S&P BSE SENSEX	CNX NIFTY	Eureka Hedge India Hedge Fund Index	
ICICI I-BEX		Ordinary Test	0.2337	0.0846	0.5053	
ICICI I-BEX		Wald (White)	0.6244	0.4870	0.7384	
ICICI I-BEX		Wald (Newey-West)	0.5925	0.4583	0.7287	
NSE G-SEC		Ordinary Test	0.9628	0.4896	0.6600	
NSE G-SEC		Wald (White)	0.9855	0.7967	0.8337	
NSE G-SEC		Wald (Newey-West)	0.9847	0.7874	0.8246	
Panel C: Hedge Fund vs. Stock and Hedge Fund vs. Bond			S&P BSE SENSEX	CNX NIFTY	ICICI I-BEX	NSE G-SEC
Stock and Bond Index ⟶ F-Test (p-value)			S&P BSE SENSEX	CNX NIFTY	ICICI I-BEX	NSE G-SEC
Eureka Hedge India Hedge Fund Index		Ordinary Test	0.2617	0.1263	0.1454	0.0446**
Eureka Hedge India Hedge Fund Index		Wald (White)	0.1774	0.0471**	0.2481	0.2036
Eureka Hedge India Hedge Fund Index		Wald (Newey-West)	0.1791	0.0596	0.1225	0.0801

Similarly, it is evident from Panel C of Table 3 that for the Tsay (1986) bivariate test with hedge funds as dependent variable almost all the three p-values are statistically insignificant at 5% level. In addition, the ordinary Tsay (1986) test with hedge funds (dependent variable) and bond (NSE G-Sec as independent variable) and the heteroskedasticity consistent Tsay (1986) test with hedge funds (dependent variable) and stock (CNX NIFTY as independent variable) show rejection of null hypothesis of linear conditional mean at 5% level. However, when these tests are re-assessed in a heteroskedasticity consistent and HAC framework, respectively, all p-values becomes insignificant at 5% level. Hence, the result from the Tsay (1986) bivariate test suggests that hedge funds and the conventional asset classes i.e., stocks and bonds are linear conditional mean in a bivariate mode.

Next, for the Terasvirta et. al. (1993) V23bivariate test with stock as dependent variable, Panel A of Table 4 report almost all three p-values which are statistically insignificant at 5% level except the ordinary Terasvirta et. al. (1993) V23bivariate test with stocks (dependent variable) and bonds (independent variable) shows rejection of null hypothesis of linear conditional mean at 5% level. However, when these tests are re-assessed in a heteroskedasticity consistent and HAC framework, all p-values becomes insignificant at 5% level. Hence, the result from the Terasvirta et. al. (1993) V23 bivariate test suggests that stocks and other two asset classes i.e., bonds and hedge funds are linear conditional mean in a bivariate mode.

Table 4: Bivariate Results of Terasvirta et. al. (1993) V23Test

The table reports the F- Statistic p-values for the Terasvirta et. al. (1993) V23test in a bivariate mode with lag order zero. For each possible combination three p-values are calculated. The first p-value is assessed from the ordinary test. The second and third p-value are assessed from the Wald adjusted test by applying a White (1980) heteroskedasticity consistent and a Newey-West (1987) HAC covariance matrix, respectively. * and ** denotes significant at 1% and 5%, respectively.					
Dependent Variable	**Independent Variable**				
Panel A: Stock vs. Bond and Stock vs. Hedge Fund					
Bond and Hedge Fund Index ⟶ F-Test (p-value)		**ICICI I-BEX**	**NSE G-SEC**	**Eureka Hedge India Hedge Fund Index**	
S&P BSE SENSEX	**Ordinary Test**	0.3718	0.0468**	0.1585	
	Wald (White)	0.5130	0.2279	0.3100	
	Wald (Newey-West)	0.2894	0.1552	0.3170	
CNX NIFTY	**Ordinary Test**	0.3647	0.0398**	0.1485	
	Wald (White)	0.5851	0.1754	0.3810	
	Wald (Newey-West)	0.3741	0.1355	0.3373	
Panel B: Bond vs. Stock and Bond vs. Hedge Fund					
Stock and Hedge Fund Index ⟶ F-Test (p-value)		**S&P BSE SENSEX**	**CNX NIFTY**	**Eureka Hedge India Hedge Fund Index**	
ICICI I-BEX	**Ordinary Test**	0.0001*	0.0000*	0.0003*	
	Wald (White)	0.0000*	0.0000*	0.0003*	
	Wald (Newey-West)	0.2314	0.1563	0.2827	
NSE G-SEC	**Ordinary Test**	0.0009*	0.0000*	0.0014*	
	Wald (White)	0.0004*	0.0001*	0.0006*	
	Wald (Newey-West)	0.1267	0.0962	0.2024	
Panel C: Hedge Fund vs. Stock and Hedge Fund vs. Bond					
Stock and Bond Index ⟶ F-Test (p-value)		**S&P BSE SENSEX**	**CNX NIFTY**	**ICICI I-BEX**	**NSE G-SEC**
Eureka Hedge India Hedge Fund Index	**Ordinary Test**	0.4173	0.2726	0.1914	0.0466**
	Wald (White)	0.0918	0.0842	0.2851	0.1966
	Wald (Newey-West)	0.0635	0.0692	0.1944	0.1375

Similarly, it is evident from Panel B of Table 4 that for both ordinary and heteroskedasticity consistent White (1980) test with bond as dependent variable, all p-values are statistically significant at 1% level. However, when these tests are re-assessed in a Newey-West (1987) HAC framework, all p-values becomes insignificant at 5% level. Hence, the null hypothesis of linearity conditional mean cannot be rejected, which implies that for the Terasvirta et. al.

(1993) V23 bivariate tests, bonds and other two asset classes i.e., stocks and hedge funds are linear conditional mean in a bivariate mode after the adjustment of HAC in ε_t.

Further, it is evident from Panel C of Table 4 that for the Ter svirta et. al. (1993) V23 bivariate test with hedge funds as dependent variable almost all the

three p-values are statistically insignificant at 5% level except the ordinary Ter svirta et. al. (1993) V23 test with hedge funds (dependent variable) and bond (NSE G-Sec as independent variable) shows rejection of null hypothesis of linear conditional mean at 5% level. However, when the test is re-assessed in a heteroskedasticity consistent and HAC framework, respectively, all p-values becomes insignificant at 5% level. Hence, the result from the Ter svirta et. al. (1993) V23 bivariate test suggests that hedge funds and the conventional asset classes i.e., stocks and bonds are linear conditional mean in a bivariate mode.

The inferences that can be drawn from the above bivariate results show that any (non)linearity identified in ordinary tests is because the error disturbances terms of the underlying tests possess heteroskedasticity and auto-correlation. Also any (non)linearity identified in heteroskedasticity consistent White (1980) test is due to the presence of auto-correlation in the error disturbances. Finally, the null hypothesis of linearity conditional mean after the adjustment for HAC in ε_t, cannot be rejected and hence conclude that in a bivariate mode, all the asset classes returns (i.e., stocks, bonds and hedge funds) used in this study are linear conditional mean with one another.

CONCLUSIONS

In empirical finance, the condition of linearity in the asset class returns is essentially needed. In addition, in portfolio selection context for the co-variance matrix to be valid, the assumption of linearity in the mean must hold. It is noteworthy that if assets class returns are not linear then the judgments made with the various portfolio selection models can lead to model misspecification. Hence, this study makes an attempt to demonstrate the linear behaviour of three important asset classes in the world i.e., stocks, bonds and hedge funds and determines whether there exists any (non)linearity in the form of linear functional in univariate, bivariate and multi-variate mode by applying the hypothesis testing approach. The paper examines the linearity behaviour between stock, bond and hedge funds in univariate and bivariate mode by applying procedural test from Tsay (1986) and Ter svirta et al. (1993). The findings revealed that in univariate and bivariate mode with ordinary hypothesis test the stocks, bonds and

hedge funds are (non)linear. However, it was found that all these three asset class returns shown heteroskedasticity and auto-correlation which adulterate the error disturbances used in the hypothesis tests. To control these effects, this study recommends a method which tests the linearity conditional mean in a HAC context. Hence, when these tests are re-assessed in HAC context, the finding of the hypothesis testing result illustrates that all the three asset class returns are certainly linear conditional mean in univariate and bivariate mode.

The finding that stocks, bonds and hedge funds are linear conditional mean offers further understandings to the performance of these vital asset classes. First, for mean-variance investors for deciding investment in portfolio, the indication of existence of linearity in the asset classes is a good sign. Second, this study demonstrates that the joint effect of heteroskedasticity and auto-correlation can produced biased result and adulterates the conclusion of linear conditional mean tests, if these effects are not properly discriminate and isolate. Last, the result of all the testing framework advocate that the markets are inefficient, and that the prices of one asset class (say hedge funds) can be estimated via the price figures of the other assets class (stocks and bonds).

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An Investigation into The Relationship between Antecedents and Consequence of Employee Engagement of Indian Nationalized Banks

Romita Khurana*
V.K. Singh**

ABSTRACT

Purpose: This study examines the effects of various antecedents on employee engagement and its consequences.

Design/methodology/approach: Data were collected from 160 employees of various different public sector banks of Uttarakhand.

Findings: The results show that there is a positive and significant impact of employee development, employee communication, rewards and recognition, perceived organization support and perceived supervisor support, leadership on employee engagement and further significant impact of employee engagement on organizational citizenship behavior.

Practical Implications: This study suggests that in order to keep a check on employee engagement managers should continuously conduct the employee engagement survey at a regular interval of time.

Originality/value: It has been found that employee engagement plays a vital role in bringing organizational success and there are many factors that help in engaging employees. This study has helped in examining various antecedents that effect employee engagement like leadership, perceived organization support and perceived supervisor support, rewards, employee development and employee communication. Due to various positive outcomes of employee engagement the attention of researchers has shifted to the construct. Although few studies have been done in this field but this study will be the first for Uttarakhand.

Keywords: Employee engagement, Banking, Antecedents, Outcomes, Construct

INTRODUCTION

Managers want to improve staff engagement because this tends to lead to staff performance, reduces staff turnover and improves the well-being of employees (Wright and Cropanzano, 2000; Taris et al., 2003; Griffith, 2004; Michie and West, 2004; Macey and Schneider, 2008; Robinson et al., 2004; Hakanen, 2008). Despite of this fact very little academic research has been done in context of employee engagement. The term employee engagement has various meaning. Some define employee engagement as level of commitment and involvement an employee has towards its organization (Alpha measure). (Nelson and Simmons, 2003) defines engagement as when employees feel positive emotions toward their work, find their work to be personally meaningful, consider their workload to be manageable, and have hope about the future of their work.

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The term employee engagement was first introduced by Kahn as "Harnessing of organization member's selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances".

The Gallup organization, potentially the most widely recognized name associated with employee engagement due to their best selling book, "First, Break All the Rules," defines engaged employees as those who, "work with a passion and feel a profound connection to their company" and "drive innovation and move the organization forward".

According to the Gallup (Consulting organization) there are different types of employees.

1. **Engaged:** Engaged employees are builders. They want to know the desired expectations for their role so they can meet and exceed them. They are naturally curious about their company and their place in it. They perform at consistently high levels. They want to use their talents and strengths at work every day. They work with passion and they drive innovation and help in organization upliftment.

2. **Not Engaged:** Not-engaged employees tend to concentrate on tasks rather than the goals and outcomes they are expected to accomplish. They want to be told what to do just so they can do it and say they have finished. They focus on accomplishing tasks vs. achieving an outcome. They don't have productive relationships with their managers or with their coworkers.

3. **Actively Disengaged:** The "actively disengaged" employees are the "cave dwellers." They are against everything. They are not just unhappy at work, but they are always found to be busy in showing their unhappiness to others. They sow seeds of negativity at every opportunity. According to Meere (2005), these employees undermine the work of their engaged colleagues on a daily basis. As workers increasingly rely on each other to generate products and services, the problems and tensions that are fostered by actively disengaged workers can cause great damage to an organization's functioning.

Antecedents of employee engagement

There are various antecedents of employee engagement some of them are:

1. **Employee Communication:** Communication play a very vital role in improving employee engagement, if employee have freedom to say and keep their views in front of management during decision making and have chance to be heard by their employers than definitely the level of engagement is high.

2. **Employee Development:** Employee development is the degree that an employee believes that his employer or managers are making specific efforts to develop this skills (Baumruk, 2004; Gallup 2003, 2005; Robinson et al., 2004 and Towers Perrin HR Services, 2005).

3. **Perceived Organization Support and Perceived Supervisor Support:** POS is seen as a guarantee that the organization will help the employee when they need any aid to run their jobs and tasks effectively and easily handle the nerve-wracking conditions (Rhoades and Eisenberger, 2002). PSS is defined as a general view of employees about how much supervisor give importance to the employee's contribution, take care of employee's well-being, interest and benefits (Kottke and Sharafinski 1988).

4. **Rewards and Recognition:** Kahn (1990) reported that people vary in their engagement as a function of their perceptions of the benefits they receive from a role. If employees receive rewards according to their expectation the possibility of them being engaged increase.

5. **Leadership:** According to Vaziarani (2007), leadership includes the company's standards of ethical behavior, transparency of the organizational values as well as the civil management of employees regardless of their job level. Employees need to have faith in the organization and this is mostly reflected through the reliability and integrity shown by the leadership team.

Importance of employee engagement

Various research has shown that employee engagement is linked to various business outcomes. According to Kahn (1992) engagement leads to both individual- level outcomes (i.e. quality of people's work and their own experiences of doing that work), as well as organizational-level outcomes (i.e. the growth and productivity of organizations). Due to

positive outcomes of employee engagement it become hot topic among various organizations. Apart from only above mention advantages there are many other numerous positive outcomes of employee engagement were found ,some of them are listed below:

Organizational Citizenship Behavior: In banking industry it is very essential for employees to show extra work role behavior to attain above the target and to be recognized. Engagement is thought to be an indicator of employee willingness to expend discretionary effort to help the employer. This is popularly referred with the acronym OCB. MacKenzie et al. (1993) defines OCB as ''discretionary behaviors on the part of an employee that directly promote the effective functioning of an organization, without necessarily influencing an employee's objective.

It has been found that employee's engagement is positively associated with OCB and is one of the important antecedent of OCB.

In this study POS and PSS, Employee communication, Employee development, Leadership, Rewards and recognition as antecedent and OCB as consequence of employee engagement have been chosen.

Conceptual framework and hypothesis development

Employee engagement is becoming a hot topic among business organizations and decision making bodies. It has been found that there is positive relationship between the antecedents POS, PSS, organizational justice, employee engagement and consequences of employee engagement including OCB. **(Adnan Rasheed, and Sanam Khan (2013)**. In a study entitled as " Role of employee engagement in work related outcomes", **Padmakumar Ram and Gantasala V. Prabhakar, 2011)** has confirmed the relationship between various antecedents like job characteristics, intrinsic and extrinsic rewards, perceived supervisor support, perception of procedural justice and perception of distributive justice) and employee engagement also the relationship of employee engagement with various work related outcomes like job satisfaction, organization citizenship behavior, intention to quit and job involvement) was confirmed. **(Yiran Wang,**

2011) in his study has examined the relationship between various antecedents and consequences of employee engagement. The results of the study indicate the working life, management leadership, communication and attitude to work positive influence employee engagement and employee advocacy. Also the positive relationship of job satisfaction with attitude to work and management leadership and communication. There is a meaningful difference between job and organization engagement.

The perceived organizational support predicts both job and organization engagement; job characteristics predicts job engagement; and procedural justice predicts organization engagement. In addition, job and organization engagement mediated the relationships between the antecedents and job satisfaction, organizational commitment, intentions to quit and organizational citizenship behavior. **(Alan M. Saks and L. Joseph, 2006)**. Among all the determinants of employee engagement like (organizational performance, management system, personal development and growth opportunities, workplace creation, and remuneration package) it has been found that remuneration shows the maximum positive relationship with employee engagement. Further in order to promote employee engagement in banking sector this study has suggested that banks should give emphasis to programs and activities. **(Samuel Obino Mokaya and Maureen Jerotich Kipyegon, 2014)**. In examining the relationship between employee engagement and its antecedents(employee development, employee communication, rewards and recognition and extended employee care),it has been found that there is a significant relationship between various antecedents and employee engagement. Further, among all antecedents employee development forms the most significant contributor. **(Rajendran Muthuveloo, Ola Khalil Basbous, Teoh Ai Ping and Choi Sang Long , 2013)**.

Further it has been found by **(Anupamma Dullo Raina and M G Shahnawaz, 2011)** that employee engagement is different in case of private sector and public sector and employee engagement is found better in case of private sector.

From the above review of literature following hypotheses has been formed.

H1: There will be a significant difference in employee engagement of different public sector banks.

H2: There shall be a significant impact of rewards and recognition, employee development, leadership, employee communication, perceived organization support and perceived supervisor support on employee engagement.

Organizational citizenship behavior could be a useful and efficient tool for converting the workforce into a valuable social capital which helps the organization to gain prominent competitive benefits and privileges from two aspects, i.e. it will be useful for both for the organization and employees. It has been mentioned that employee's attitude towards organization, organizational climate and employee engagement are significant antecedents of organization citizenship behavior **(Sayyed Mohsen Allameh, Mohsen Shahriari and Hossein Mansoori , 2012)**. Among other determinants of OCB like altruism, conscientiousness and civic virtue. Altruism is found to be the most important. **(Talat Islam, Zulfqar Ahmad, Ishfak Ahmed and Saher Khushi Mohammad, 2011)**. It has been found that there is a positive relationship between employee engagement and organizational citizenship behavior. (Dorothea Wahyu Araini, 2013).

Based on above reviews third hypothesis is formulated in this way

H3: There shall be a significant impact of employee engagement on organizational citizenship behavior.

METHOD

Participants

The data for this study were collected from a simple random sample of 160 employees of five public sector banks of Uttarakhand. The five banks choosen were Punjab National Bank(PNB), State Bank of India(SBI) Canara bank, Bank of India (BOI), Bank of Baroda (BOB). The reason for choosing the banking sector is because of increasing competition and rapid change in technology bank wants the employees who can easily engage themselves with the change and even work with full commitment. And this study will help in understanding the factors that will help the banks in engaging the employees to the full extent.

Procedure

The survey method was utilized and participants were contacted by making personal visits to the banks by us usually at the time of their opening in the morning and late afternoon when the customer inflow is very less compared to the evenings. The questionnaire was provided with a brief explanation regarding its purpose and objectives, further the participants were also assured that the responses marked by them will be treated with anonymity and confidentiality and hence their identity will not be revealed to anyone.

Instrument

Self framed questionnaire was used to measure various antecedents (employee development, employee communication, leadership, perceived organization support, perceived supervisor support, rewards and recognition, organizational citizenship behavior and employee engagement). The questionnaire consist of two section first section was used to measure demographic information rewards age, gender , qualification, tenure etc. and second section was used to measure various variables and include 55 items.

Analysis

Multiple regression analysis technique was used to find out the impact of various antecedents on employee engagement and further correlation and regression is used to find impact of employee engagement on OCB.

RESULTS

Reliability of scale

In order to check the internal consistency and reliability of scale cronbach's alpha has been used. Cronbach's alpha helps in finding out how closely the items are related in a group. The value of cronbach's alpha has been found to be .932 which shows that items have relatively higher internal consistency.

Demographic Analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
.932	55

Table 1

Employee Designation	Frequency	Percentage
1. Officers	34	26.875
2. Managers	83	51.875
3. Clerks	43	21.25
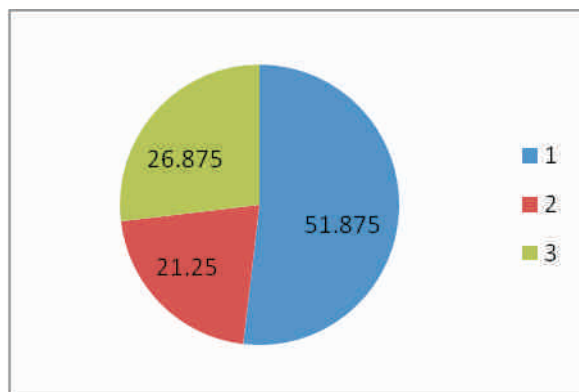
Figure 1

From the above table it has been found that 51% of the employees who filled the questionnaire are the managers in their respective banks. About 26.875% are officers and rest are on clerical positions.

Table 2

Employee age	Frequency	Percentage
Under 30	33	20.625
30-40	68	42.5
41-51	41	25.62
52 or older	18	11.25
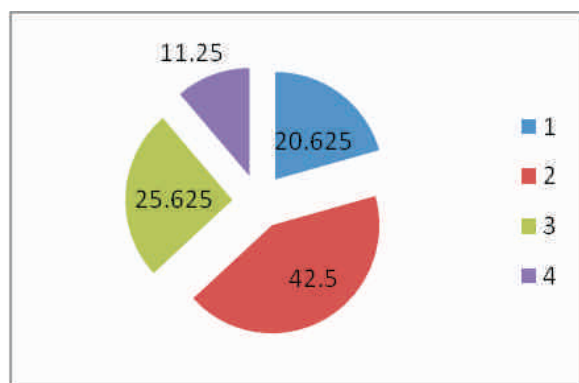
Figure 2

From the above table it has been found that 20.625 % of the teachers are under age of 30. 42.5 % are in 30-40 age group.25.62 % fall in the age group of 41-51 and remaining 18% are 52 years of age and above. According to analysis it is clear that most of the employees are above 30 years of age. Also item no. 37 of the study shows that employees of the age group 30-40 have more clear understanding of their roles and responsibilities.

Table 3

Gender	Frequency	Percentage
Male	89	55.625
Female	71	44.375
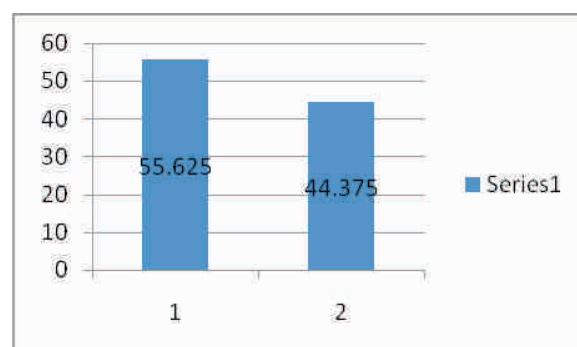
Figure 3

According to this study it has been found that 55.625% are male and remaining 44.375% are female. Further through item no. 43 of the questionnaire shows that female employees feels that their fellow employees are committed to do quality work. Also item no. 26 of the questionnaire reveals that male employees keep themselves updated about organization's plans and progress more quickly than their female counterparts.

Table 4

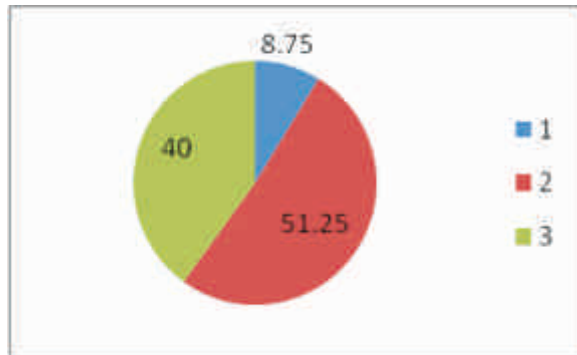| Educational qualification	Frequency	Percentage
Intermediate	14	8.75
Graduate	82	51.25
Post graduate	64	40

Figure 4

Above table shows that 51.75% of the employees have completed their graduation and 40% are post graduate while remaining 8.75% have completed their graduation only.

Table 5

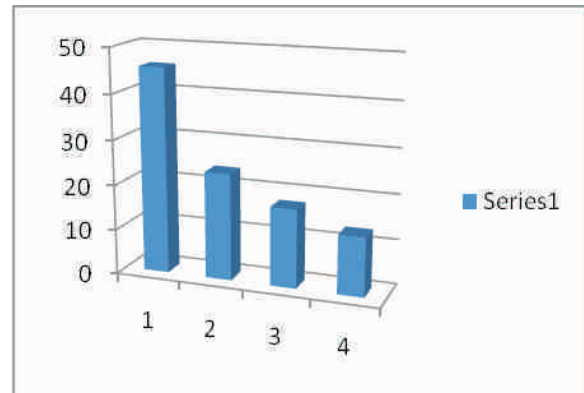| No of years working with the bank	Frequency	Percentage
Less than 5 years	73	45.62
5-10 years	38	23.75
10 to 15 years	28	17.5
More than 15 years	21	13.12

Figure 4

From the above table it has been found that 45.62 % of employees have been working for less than 5 years, 23.7 5% have been working for more than 5 years but less than 10 years. Wherease 17.5 % of the employees have been working for more than 10 years but less than 15 years and the remaining 13.125% have been working for more than 15 years. According to the item no. 48 of the questionnaire employees who have been working for more than 10 years believes that the environment of trust and friendship motivates them to keep working for longer period of time and also it has been found that with the increase in tenure the level of engagement among employees also increase.

DESCRIPTIVE ANALYSIS

Table 6

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
LEADERSHIPMEAN	160	1.00	4.67	2.2615	.76288
EMPDEVELOPMENTMEAN	160	1.00	4.75	2.3781	.70654
POSPSSMEAN	160	1.13	4.25	2.3492	.55356
OCBMEAN	160	1.00	4.86	2.2125	.74135
EMPCOMMMEAN	160	1.00	4.50	2.2708	.65203
REWARDSMEAN	160	1.00000	5.00000	2.6725000	.81726265
EMPENGMEAN	160	1.00000	4.50000	2.1614583	.67620841
Valid N (listwise)	160				

From the above table it has been found that for the variable leadership the mean of respondents is 2.26 and standard deviation is .76; for the variable employee development the mean of employees is 2.37 and standard deviation;70.for the variable perceived organization support and perceived supervisor support mean of employees is 24 and standard deviation is .55; for the variable organizational citizenship behavior the mean is 2.21 and standard deviation is .74; for the variable employee communication the mean is 2.27 and standard deviation is .65; for the variable rewards and recognition the mean is 2.67 and standard deviation is .817 and for the variables employee engagement 2.67 and standard deviation is .676

which clearly shows that most of the employees shows agreement on items of employee engagement which further reveals that majority of employees feels a sense of engagement with the organization and their job.

TESTING FIRST HYPOTHESIS

In order to test our 1st hypothesis that is H1: There will be a significant difference in employee engagement of different public sector banks. ANOVA test was applied as it helps in finding out if there exist a significant difference in the employee engagement level for different banks or not. The result is given below.

Table 7

ANOVA					
Empengagement					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1899.500	4	474.875	8.589	.000
Within Groups	8569.875	155	55.290		
Total	10469.375	159			

From the above table it has been found that the value of $p<.05$ so it can be said that there exist a significant difference between employee engagement of different nationalized banks. Hence null hypothesis is rejected.

Testing 2nd Hypothesis

H2: There shall be a significant impact of rewards and recognition, employee development,

leadership, employee communication, perceived organization support and perceived supervisor support on employee engagement. In order to test our second hypothesis that is to see the impact of various independent variable (leadership, employee development, rewards and recognition, POSPSS , employee communication and OCB on employee engagement , multiple regression test was applied the result of the test is given below:

Table 8

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.701a	.491	.471	5.90079
a. Predictors: (Constant), rewards, ocb, employeedevelopment, emp communication, pospss, leadership				

From the above table the value of R represent the multiple correlation coefficients which is .701 which means various independent variable are 70% correlated with a single dependent variable. Further in above table the value of R square (coefficient of determination) is .491 which means that 49% of total variance in dependent variable (employee engagement) is explained by all the independent variable(antecedents).

Testing 3rd hypothesis
H3: There shall be a significant impact of employee engagement on organizational citizenship behavior. Again in order to test our third hypothesis that is to check the impact of employee engagement on organizational citizenship behavior simple regression technique was applied between two variable. The result of regression analysis is given below:

Table 9

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.483a	.233	.228	4.55839
a. Predictors: (Constant), empengagement				

In the above table it has been found that value of R (coefficient of relation) is .483 which means there is 48% correlation between employee engagement and organizational citizenship behavior. Further the value of R square is .233 that means 23% of variance is shown in OCB by employee engagement and since the value is significant $p<.05$ so we can reject the null hypothesis and can say that there is a significant impact of employee engagement on OCB.

Discussions
The main aim of the study is to check the impact of various antecedents on employee engagement and to further examine the impact of employee engagement on organizational citizenship behavior. In our study we have conceptualized that employee development, employee communication, leadership, rewards and recognition will be positively related to employee engagement. Our study has shown that there is a positive impact of various antecedents on employee engagement. Further it has been found from the review of literature that there are numerous of the previous studies which shows the same results. Some of the studies are **(Adnan Rasheed and Sanam Khan, 2013)**. There is a positive relationship between the antecedents (perceived organization support, organizational justice), employee engagement and organization citizenship behavior. **(Muhammad Saqib Nawaz, Masoodul Hassan, Saad Hassan, Sadia Shaukat and Muhammad Ali Asadullah, 2014)**. There is a significant impact of employee

training and empowerment via employee creativity on employee engagement.

Managerial implications
Despite of advancement in technology, increasing benefits and improved HR policies in nationalized banks for employees, still most of the employees are not completely satisfied with the bank. Although banks are focusing on many ways to engage employees so that they will able to work with full commitment and passion in their organization but still most of the employees are not well aware of the term employee engagement even though continuous engagement surveys are conducted in banks at regular interval of time. So there is urgent need that managers should do efforts to engage employees and before doing anything for the betterment of employee they should be aware of it. It is the responsibility of managers to ensure open communication in organization and should allow employees in the decision making which atleast affect employees.

LIMITATIONS

Like everything has pros and cons similarly in this study also there are certain limitations. One of the limitation in this study is that it is conducted only for nationalized banks and employee engagement and its consequences may vary for other banks as well as for other sectors also. Another limitations of the study is only one consequence of employee

engagement was taken there are other positive consequences also of employee engagement which can be taken in future research. The last is the sample size taken for the study is very limited.

Future research directions:
Future research can be done on the same study but by taking different antecedents like job characteristics, procedural justice, distributive justice and consequences of employee engagement like intentions to quit, customer satisfaction, productivity etc. Also in future the study can be done to find the impact of various demographic variable on employee engagement.

CONCLUSION

The study was carried out in banking sectors, five nationalized banks were taken for the study (PNB, BOI, BOB, SBI, Canara bank). As the present study aims to find out if difference exist in the level of employee engagement in different public sector banks it has been found by the result of Annova test that there lies a significant difference in employee engagement of different banks. One of the major reason that contributes to difference in employee engagement of banks is sometimes non - availability of materials to perform the task and lack of environment of trust and friendship in various banks. The result of study shows that there is a positive 70% correlation between various antecedents and employee engagement and positive 48% correlation between employee engagement and organizational citizenship behavior of public sector banks which means if employees are engaged in the organization and they work with full commitment than it results in increasing organizational citizenship behavior or it can be said that engaged employees always shows extra role behavior that is not included in their contract. Very few studies have been conducted in India in the area of employee engagement. The study shows that most of the employees have been working for less than 5 years and fall under the age of 30. Item no. 11 of the questionnaire shows that most of the employees of public banks feel a sense of loyalty and want to continue working there for longer period of time.

The study finds out the various factors that lead to employee engagement in banks some of them are availability of materials and equipments to complete the task, proper reward system and availability of various family health and safety benefits, provision of regular feedback to the employees and other benefits like holiday home, foreign and organizational trips which motivate employees to work with full commitment and to be engaged in the organization for a longer period of time .

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A Comparative Analysis on Customer Satisfaction between Public and Private Life Insurance Companies in India

Prarthana Shahi*

ABSTRACT

The idea about insurance in the mind of customers has always been just to accomplish the needs of security. The Economic Reform in the Indian Life Insurance Industry has resulted in the emergence of many private life insurance companies and it was expected that there will be a change in the preference of the consumers. Life insurance today is not just a tool that provides financial security to one and their dear ones but also has become a means for long- term financial investment. The customers of today are well aware and are more conversant with the different alternatives that support them to fulfill their desires. This paper attempts to know about the customer preference towards both public and private life insurers available in the life insurance market. The paper is based on descriptive research design. The researcher has used close ended questionnaire to collect primary data from the customers of various life insurance companies. The research paper in its conclusive part has suggested various means to improve upon customer satisfaction so that it will benefit both the organizations and the customers.

Keywords: Public and Private life insurance companies, IRDA, Economic reforms, Customer expectations, Customer preference, Insured and uninsured respondents, Medium of purchase, Marketing channels, Satisfaction level, CRM, Reputation, Promotion schemes.

INTRODUCTION

Life insurance is a professional service where customers are the focal point. After economic reforms, a lot many improvements have been done in the area of identifying the needs of customers. Since year 2000 when insurance market opened in India, there is one Public and 23 Private life insurance companies operating under the Insurance Regulatory and Development Authority (IRDA) Act. The list of all life insurers are listed below in table 1. All life insurance companies have assertively worked on the awareness strategies. They have organized various awareness campaigns at different geographical locations throughout the country. In a competitive market where insurance companies are competing with each other to increase their customer base, customer positions preference and satisfaction as a key differentiator and increasingly has become a major contributor for successful business strategies. In changing scenario after economic reforms, all insurance companies are trying to retain their existing market share by using different marketing stimulus and very aggressively trying to expand their customer base in this highly competitive market. In contrary customers satisfaction provides an insight that how successfully an organization is providing required products/services to the customers.

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Table 1: Total number of life insurers operating in India since 2000

Sr. No.	Public Sector	Sr. No.	Private Sector
1	Life Insurance Corporation of India	1	Aegon Religare Life Insurance Co. Ltd.
		2	Aviva Life Insurance Co. Ltd.
		3	Bajaj Allianz Life Insurance Co. Ltd.
		4	Bharti AXA Life Insurance Co. Ltd.
		5	Birla Sun Life Insurance Co. Ltd.
		6	Canara HSBC OBC Life Insurance Co. Ltd.
		7	DHFL Pramerica Life Insurance Co. Ltd.
		8	Edelweiss Tokio Life Insurance Co. Ltd.
		9	Exide Life Insurance Co. Ltd.
		10	Future General Life Insurance Co. Ltd.
		11	HDFC Standard Life Insurance Co. Ltd.
		12	ICICI Prudential Life Insurance Co. Ltd.
		13	IDBI Federal Life Insurance Co. Ltd.
		14	IndiaFirst Life Insurance Co. Ltd.
		15	Kotak Mahindra Old Mutual Life Insurance Co. Ltd.
		16	Max Life Insurance Co. Ltd.
		17	PNB MetLife India Insurance Co. Ltd.
		18	Reliance Life Insurance Co. Ltd.
		19	Sahara India Life Insurance Co. Ltd.
		20	SBI Life Insurance Co. Ltd.
		21	Shriram Life Insurance Co. Ltd.
		22	Star Union Dal-Ichl Life Insurance Co. Ltd.
		23	TATA AIA Life Insurance Co. Ltd.

Source: IRDA Annual reports 2013-14
As on 31st March 2014

LITERATURE REVIEW

While earlier studies on Life Insurance sector has altogether been a general study about customer preferences and their satisfaction. It is relevant to refer briefly to the previous research studies in the related areas of the present study in order to avoid repetition and also to search out the different dimensions of the study. Although a large quantity of research in this area has recently been developed, among which few are considered here. But still it was found that a lot of in-depth research in the current field is required. This research is a positive endeavor towards the same pathway. Among earlier studies, Parasuraman, Zeithaml and Berry between 1985 and 1988 provided the basis for the measurement of customer satisfaction with a service by using the gap between the customer's expectation of performance and their perceived experience of performance. In their research they measured it with a satisfaction "gap" which was objective and quantitative in nature. Berry and Brodeur between 1990 and 1998 defined ten 'Quality values' which influences satisfaction behavior, further the same was expanded by Berry in 2002, known as the ten domains of satisfaction. These ten domains were: Quality, value, Timeliness, Efficiency, Ease of access, Environment, Inter-departmental Teamwork, Front line Service Behaviors, Commitment to the customer and Innovation. The research concluded that these

factors were necessary for continuous improvement of the organization itself and also for the measurement of organizational change. This is most often utilized to develop the architecture for satisfaction measurement as an integrated model. Cronin and Taylor further proposed in a research concerning the "confirmation/disconfirmation" theory of combining the "gap" described by Parasuraman, Zeithaml and Berry as two different measures (perception and expectation of performance) into a single measurement of performance according to expectation. According to Garbrand in his own research defined customer satisfaction and said that it is equal to the ratio of perception of performance and expectation of performance. It was also suggested that the usual measures of customer satisfaction involved a survey with a set of statement using a Likert Technique or scale. The customers were asked to evaluate each statement in term of their perception and expectation and then the performance of the organization was measured.

OBJECTIVES OF THE STUDY

The purpose of the research paper is as follows:
a) To study the preference of customers towards various life insurance plans offered by the public and private life insurance companies.
b) To study the preference of customers towards different marketing channels offered by the public and private life insurance companies to sell their products.
c) To study the satisfaction level of customers towards the services provided by the public and private life insurance companies.
d) To study the influence of different factors of purchase on customers while purchasing products from the public and private life insurance companies.

RESEARCH METHODOLOGY

Research is the art of scientific investigation. The present research study is based upon descriptive research design. As a primary source the data was collected through closed ended questionnaire. The sample design initially targeted 100 respondents out of which 60 were insured either from public, private or both insurers and later on the information provided by these 60 respondents are used in the research. These respondents were selected through convenience sampling. The data related to all private life insurance companies were accumulated together and was compared with the public life insurance company. The data was then tabulated and further analyzed at different parameters with the help of Chi-square test.

DATA ANALYSIS AND INTERPRETATION

Life is overcrowded with apprehensions about the future and what uncertainties it holds for the individual. Despite all the planning and preparation one makes, no one can accurately guarantee or predict how or when death might upshot.

Life insurance may not be the best place to bestow your hard-earned wealth. But there are enough reasons for one to believe that it can be a highly lucrative opportunity to facilitate savings. In regard to this the researcher has begun its research by collecting the data by means of filling up of the questionnaire from the respondents of various life insurance companies. The researcher has listed out the number of respondents that are insured or not in a tabular and graphical representation. Table 2 gives the number of respondents whether insured or not by any of the private life insurers or public.

a) **Insured Population**
Insured population is the population which is eligible for insurance policies.

Table 2: Insured and uninsured respondents

Total Sample Size	Number of Respondents
Insured	60
Uninsured	40
Total	100

Source: Sample Survey

Figure 1: Respondents insured/uninsured

Table 3: No. of persons insured under different companies

Insurance Company	No. of Respondents	Percentage (%)
Private insurance company	16	26.67
Public insurance company	36	60.00
Both	8	13.33
Total	60	100.00

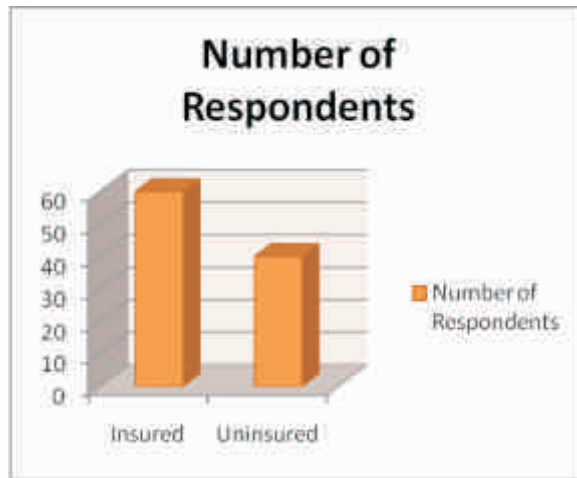*Source: Sample Survey*

After analyzing the data collected through a sample survey the researcher has integrated that in table 2. Figure 1 illustrates that information into desired form and this helps us to clearly understand that there are still only 60 percent of the respondents that have their preference towards insuring themselves and they think that life insurance is something more than investments. But 40 percent which is a huge amount still have not changed their mindset. This further can be interpreted as the life insurance companies operating in Indian market still have a vast area to focus upon.

The researcher has further carried her research on these 60 percent of the insured respondents. Table 3 reveals the list of the respondents who has insured themselves or any of their family members from public or private life insurance companies or from both public and private life insurance companies.

b) People insured under different companies
The insured numbers are the customers who have insured them self or any of their family members in public, any private or even both life insurance companies.

Figure 2: Percentage of insured population

Table 3 reveals that out of those 60 respondents the number of persons insured by public life insurance company is 36, that by all private life insurers is 16 and 8 have insured themselves from both public and private life insurance companies. From figure 2 it is clearly observed that the public life insurance company has occupied 60 percent of the insurance market which is quite a large proportion of market share in comparison of all private life insurance companies together managed to get only 27 percent of market share. Remaining 13 percent of insured population has taken insurance products from both public and private companies.

People often talk about returns and yield on investment and tend to compare their values with similar products offered by different insurance companies. Many people compare these returns with different saving instruments available in the market like post office savings, mutual funds, banks or share market but when we talk about risk cover we cannot compare it with any other saving instruments.

c) **Preference of customers towards various plans offered by public and private life insurance companies**

Table 4: Plans taken by the insurers

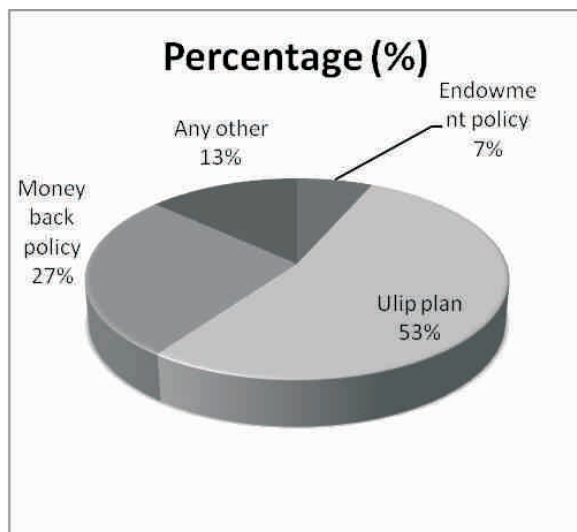| Plans taken	No. of Respondents	Percentage (%)
Endowment policy	4	6.67
ULIP plan	32	53.33
Money back policy	16	26.67
Any other	8	13.33
Total	60	100.00

Source: Sample Survey

Figure 3: Percentage of plans taken by the insurers

Hypothesis testing

$H_0(1)$: There is no significant difference in the preference of customers towards various plans offered by the public and private life insurance companies.

Chi-square test

Calculated value	Degree of freedom	Level of significance	Table value
50.16	3	5%	7.815

The analysis thus proved that the null hypothesis is rejected because calculated value is greater than the tabular value and hence concludes that there is a significant difference in the preference of customers towards various plans offered by the public and private life insurance companies.

d) **Preference of customers towards different marketing channels offered for selling the products by public and private life insurance companies**

Table 5: Channels of Marketing

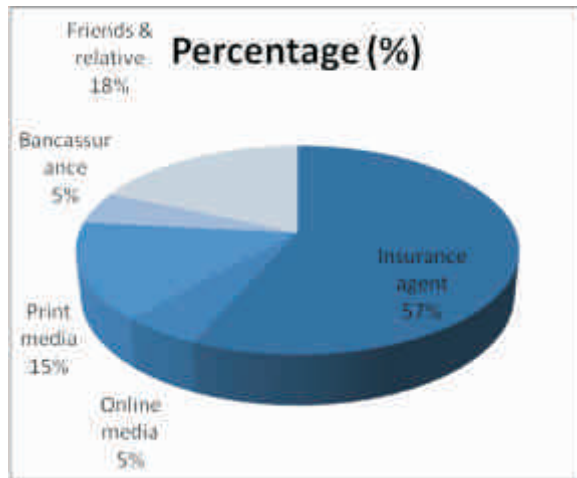| Marketing Channels	No. of Respondents	Percentage (%)
Insurance agent	34	56.67
Online media	3	5.00
Print media	9	15.00
Bancassurance	3	5.00
Friends & relative	11	18.33
Total	60	100.00

Source: Sample Survey

Figure 4: Percentage of division of marketing channels

Hypothesis testing

$H_0(2)$: **There is no significant difference in the preference of customers towards different marketing channels offered by the public and private life insurance companies.**

Chi-square test

Calculated value	Degree of freedom	Level of significance	Table value
94.65	4	5%	9.488

The analysis thus proved that the null hypothesis is rejected because calculated value is greater than the tabular value and hence concludes that there is a significant difference in the preference of customers towards various marketing channels offered by the public and private life insurance companies.

e) **Satisfaction level of customers after using the services offered by either public or private life insurance companies**

Table 6: Satisfaction level

Satisfied /Unsatisfied customers	No. of Respondents	Percentage (%)
Public	37	61.67
Private	14	23.33
Both	9	15.00
Total	60	100.00

Source: Sample Survey
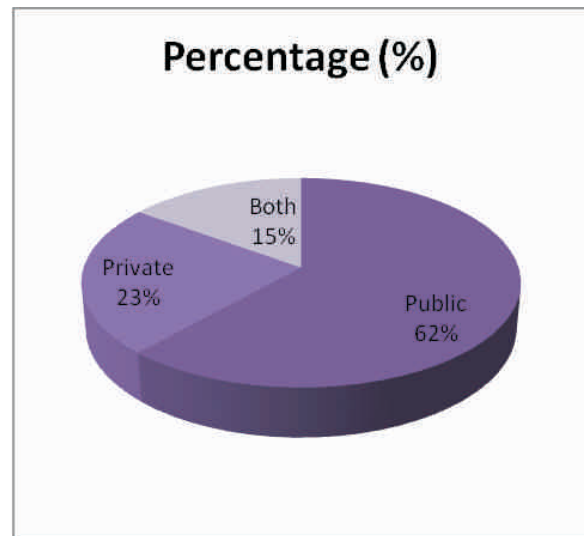

Figure 5: Percentage value to satisfaction level

Hypothesis testing

H0(3): **There is no significant difference in the satisfaction level of the customers after using the products offered by public and private life insurance companies.**

Chi-square test

Calculated value	Degree of freedom	Level of significance	Table value
37.94	2	5%	5.991

The analysis thus proved that the null hypothesis is rejected because calculated value is greater than the tabular value and hence concludes that there is a significant difference in the satisfaction level of the customers of public and private life insurance companies.

f) **Influence of factors of purchase on the customer decision to buy the product either from public or private life insurance companies**

Table 7: Factors of purchase

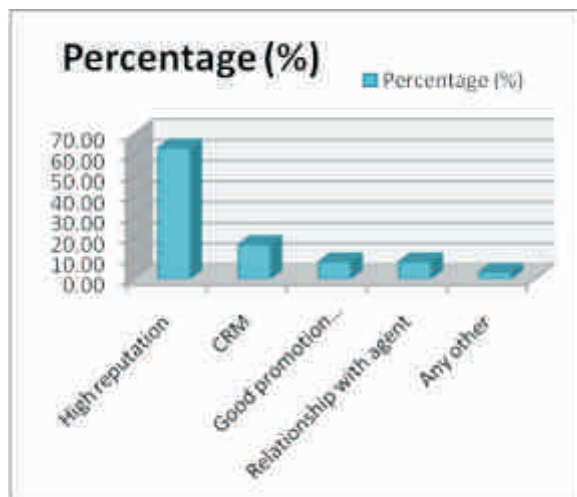| Factors for purchase	No. of Respondents	Percentage (%)
High reputation	37	61.66
CRM	10	16.67
Good promotion schemes	5	8.33
Relationship with agent	6	10.00
Any other	2	3.33
Total	60	100.00

Source: Sample Survey

Figure 6: Percentage of factors of purchase

Hypothesis testing
$H_0(4)$: **There is no significant difference on the customer influence due to different factors of purchase offered by the public and private life insurance companies**

Chi-square test

Calculated value	Degree of freedom	Level of significance	Table value
115.33	4	5%	9.488

The analysis thus proved that the null hypothesis is rejected because calculated value is greater than the tabular value and hence concludes that there is a significant difference between factors of purchase on the customer decision to buy products either from public or private life insurance companies.

CONCLUSION & SUGGESTIONS

- The percentage of insurable population in India is still very large, this suggests that there is a large scope for life insurance companies to grow and expand their business in the Indian life insurance market.
- After the Globalization and Liberalization of insurance sector it was expected that the monopoly of public life insurance company will be shattered due to the emergence of a number of private companies but the private companies have captured very less proportion of the entire life insurance market as compared to that of the public life insurance company. This explains that the private companies have to struggle a lot to increase their proportion.
- As a number of plans being offered by both public and private life insurance companies but among all those ULIP plans is ranked first then the money back policies followed by the endowment plans. Hence it is suggested that companies have to introduce new attractive features in endowment plans so as to improve their performances.
- There are choices of mediums available for the customers through which they can purchase different plans from different companies. Though there are many options available for customers but customers rely more on

insurance agents to purchase their plans followed by print media then the referrals of their friends and least importance to electronic media are given. Hence IRDA should make it obligatory that all marketing channels viz. Development officers and their agents must be encouraged by giving them high incentives and more attractive schemes so that these channels who are directly in contact with the customers can benefit the organization as such.

- As far as the satisfaction level of those customers is concerned who have already purchased the products offered by either public or private life insurance companies it has been observed that there is a significant difference and it was found that those customers are always satisfied who have acquired the facilities offered by the public company as compared to those acquiring private companies' offerings. Hence public company have managed to maintain their quality whereas private companies if they have to survive in longer run then should take the spirit of competition with positive moves rather than trying to indulge in gaining short term benefits.

- There is a significant difference between factors of purchase on the customer decision to buy the product either from public or private life insurance companies. Among all those factors reputation of the company plays the most important role followed by the customer relationship. Whereas, the promotional schemes and relationship with the agents have comparatively less impact on those. Although all factors play a significant role on the purchase but the reputation of the company is the one factor that have the maximum affect. It is suggested that though public company have managed to do so but the overall performance is not up to the mark as a large proportion of the population is still left untouched. Hence all life insurance companies have to sincerely place serious efforts to improve upon their reputation by focusing on certain very significant areas such as improve upon their claim settlement results, defining their rules and regulations easy and understandable, improving upon the customer-company relationship, open and fair policies, etc.

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Financial Inclusion as a tool for Economic Growth: an Analytical Study

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ABSTRACT

As it is a known fact that finance is the life blood for the survival and development of the economy as well as community. The development of nations is the result of inclusive growth and same can be achieved through financial inclusion. Financial Inclusion or inclusive financing is the effort to provide low-cost banking and financial services to the disadvantaged people of the economy. Being the second largest economy in the world India has a large number of working (employed) persons having no access to financial services which are delivered by the various financial institutions.

Financial inclusion means delivering (at least the basic and core) financial services to those who have no access to these services, at an affordable cost and on timely basis.

But there are many challenges for financial inclusion. The first being is to educating people and improving the credit delivery mechanism. Hence, without a proper financial system the economy will not be accelerated towards its anticipated growth as well as to bring prosperity in the economy.

This paper focuses on analysing the current position of financial inclusion in India. The researcher highlights the major tools and approaches of Reserve Bank of India and Government of India to accelerate the growth of financial inclusion in Indian economy.

Keywords: *Financial Inclusion, Financial Exclusion, Financial Stability, no frills accounts, Disadvantaged people, KCC, GCC, PSL*

INTRODUCTION

Many research findings in the last two decades stated that there exist a direct relationship between financial exclusion and poverty in developing nations. Therefore the financial inclusion is considered as the core objective of a nation in order to achieve high economic growth rate.

A large number of disadvantaged people, small and marginal farmers having no access to the financial services, are the main threat to economic progress.

The degree of financial inclusion differs from country to country depending upon the state of development. It is surprising that India is second largest nation in terms of financially excluded population after China.

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Central Bank and Government of India also provided high importance to financial inclusion for sustainable development of the economy and as a result of this the rate of PSL (Priority Sector Lending) is supposed to be increasing in future. Agricultural sector, Micro, Small and Medium Enterprises (MSME), small and marginal farmers forms PSL.

"There is a need to increase employment, create basic infrastructure and improve competitiveness of the economy, thus create more jobs. It is, therefore, time to re-orient the Priority Sector Lending Guidelines towards today's growth and inclusion agenda," a statement issued by the Finance Ministry.

RBI has set a target of lending 40% of the total available resources for credit under priority sector loans for private and public sector banks.

As assumed by the banking institutions that weaker section of the society makes default in the repayment of loans which increases NPA (non performing assets) of the banks. Thus, the banking institutions opposed the increment in the PSL, which will be considered as an obstacle in financial inclusion.

Besides this, Government of India has introduced many tools to bring the rural population and weaker section of the society within the ambit of financial inclusion. Some of the major tools are Pradhan Mantri Jan Dhan Yojana, Pradhan Mantri Jeevan Jyoti Bima, Pradhan Mantri Suraksha Bima Yojana, Atal Pension Yojana Etc.

Objectives of Study:
1. To study financial inclusion and its importance.
2. To analyse the need and significance of financial inclusion in India.
3. To study the current scenario of financial inclusion in Indian economy.
4. To study the major tools of Reserve Bank of India and Government of India for financial inclusion.
5. To study the major factors having an impact on the access of financial services.

Scope and Importance of Study:
This research study has been conducted to know the impact of various schemes of government which provide an aid to financial inclusion. This study will also suggest future prospect in the area for the financial inclusion. This research shows the influence of factors affecting the banking decisions of people and how these will help in financial inclusion.

Research Methodology:
The research methodology is partly descriptive and partly causal. For this study the data has been collected through books, Newspapers, Research Articles, Research Journals, Articles of RBI, reports of Ministry of Corporate Affairs etc.

FINANCIAL INCLUSION

Concept and Definition of Financial Inclusion
In present scenario, financial inclusion plays a critical role in the inclusive growth of the Indian economy. This concept is not new in Indian economy. After the nationalization of banks in 1969, RRBs were established and SHG-bank linkage programs were initiated by RBI to spread the financial accessibility to the disadvantaged and unbanked population.

As per the Committee on Financial Sector Reforms under the chairmanship of Dr. Raghuram G. Rajan, "Financial Inclusion broadly defined, refers to universal access to a wide range of financial services at a reasonable cost. These include not only banking products but also other financial services such as insurance and equity boards."

The basic objective of financial inclusion is to gain access for the disadvantaged people to the full domain of financial services at the reasonable cost.

In other words, financial inclusion includes attaching the weaker section of the society with the financial (banking) services at a reasonable cost. These services include opening a bank account at low MAV and QAV, and to increase the investment safely and continually.

All the efforts of government, like Pradhan Mantri Jan Dhan Yojana etc., aimed at to raise the investment of the general public and to raise the revenue of government.

Thus, financial inclusion results in the contribution of economic growth and development.

Pradhan Mantri Jan Dhan Yojana is known as a milestone to achieve a remarkable stage of

financially inclusive economy. This scheme was launched with a view to provide billions of bank accounts to the weaker and disadvantaged people of the economy.

In addition to this scheme, Reserve bank of India had introduced various services like providing no-frills account, providing relaxation in the KYC (know your customer) norms, and opening bank branches in those areas which were categorised as unbanked rural centres. Here the term no-frills account means providing a bank account without attaching any other supplementary services or charging extra charges for those. Therefore, the core bank account is known as no-frills account.

This study focuses on the present status of various tools used for financial inclusion. One of the major tools is the PMJDY which could be an effective tool for reaching the rural and disadvantaged population.

From time to time RBI introduces various measures to balance the growth of economy with the help of various money measurement tools. But various studies show that these tools attract only urban population. In order to cover the rural and disadvantaged population, some other attractive tools will be needed to provide basic banking services to them and also the supplementary services at a lower cost.

Importance of Financial Inclusion in Indian Economy
In India, Financial Inclusion was first introduced by K C Chakrabarty in 2005. After that various facilities like core bank accounts, General Credit Cards were issued to the disadvantaged people to ensure easy access to credit. In 2008, Rangarajan Committee had furnished its report on Financial Inclusion and suggested various parameters to achieve this goal.

If the poor and rural persons are not attached to the formal financial system, their growth will not take place and they will remain poor despite of the rapid development of the economy. If the people do not have access to the financial services, they lack will awareness of investing their money and will risk the future of their families. Without the proper education about formal financial services, they can invest their money only in the fraudulent money

schemes. That is why Financial Inclusion becomes important for the economic growth.

As per the report of Rangarajan Committee (2008), "Financial inclusion may be defined as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as the weaker sections and low income groups at an affordable cost."

Since banking services are in the nature of public good, the availability of banking and financial services to the poor and disadvantaged people becomes essential for the development of an economy. These services must be provided to the people at the same price so that discrimination of these services cannot take place. It becomes the primary objective of the economic growth.

Figure: Functions of Financial Inclusion

Role of Financial Inclusion in Indian Economy
Financial Inclusion broadens the resources base of the financial system by developing a culture of savings among large segment of rural population and plays its own role in the process of economic development. By bringing the low income groups within the ambit of financial services, the financial wealth of the low income groups can be protected by this exercise.

With the help of financial inclusion, the vulnerable groups may be provided with the ease of credit and can be protected from the exploitation by the usurious money lenders.

**Figure: Role of Financial Inclusion
in the economic development**

Present Scenario of Financial Inclusion in India
During 2014, the GoI has launched two insurance schemes and one pension scheme as part of the financial inclusion push. These are the Pradhan Mantri Suraksha Bima Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana and the Atal Pension Yojana. The two insurance schemes offer a cover of Rs 2 lakh each, while the pension scheme will guarantee a pension of Rs 1,000 a month.

Thus, all three involve amounts of insurance cover and pension. Most of the persons would have received an SMS from their banks for enrolling in the schemes.

However, are these schemes reaching those that they are meant for?

Dhirendra Kumar CEO, Value Research, Economic Times said that there are many people who have no idea about these schemes launched by the GoI. He stated the reason behind this situation, is lack of comprehension about what it really meant and what the benefits of enrolling in the schemes would be.

Uma Shashikant, (Managing Director, Centre for Investment Education and Learning) had stated about financial inclusion in the article called **"Modi government's financial inclusion programme: Here's how to make most of it" in Economic Times.**

She suggested about the importance of various tools of government for the welfare of employees working in an organization, as well as help in financial inclusion. She suggested (i) to opening a bank account under Pradhan Mantri Jan Dhan Yojana and (ii) to give a gift of Rs. 342, i.e. Rs. 300 for the Pradhan Mantri Jeevan Jyoti Bima Yojana (a life insurance scheme with a sum assured of Rs. 2 lakh) and Rs. 12 for the Pradhan Mantri Suraksha Bima Yojana with accidental benefits of Rs. 2 lakh. She further stated that to allocate a small amount of employee's salary for the subscription of the Atal Pension Yojana which will ensure a specific amount of pension after retirement of employee. These tools are very useful to promote a healthy working environment and prosperity among relationship between employer and employee.

Tools for Financial Inclusion:
RBI and GoI has introduced various tools and measures to fulfill the dream of Financial Inclusion like, improvement in PSL norms, financial literacy, PMJDY, KCC, GCC, no-frills account, relaxation in KYC norms etc.

1) **Financial Literacy:**
   Financial literacy is a crucial tool for the financial inclusion. More or less, most of the studies concluded that financial literacy is essential for the financial inclusion. Financial Literacy is the ability to understand finance easily.

   The President's Advisory Council on Financial Literacy (PACFL-USA) convened (2008) to "improve financial literacy among all …….," defines;

   Financial education as "the process by which people improve their understanding of financial products, services and concepts, so they are empowered to make informed choices, avoid pitfalls, know where to go for help and take other actions to improve their present and long-term financial well-being" and

   Financial literacy as "the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being."

The Canadian Foundation for Advancement of Investor Rights (FAIR) defines (2009) financial literacy as "having the knowledge, skills and confidence to successfully carry out the financial transactions encountered in everyday life."

2) Priority Sector Lending (PSL) norms:

As proposed in Paragraph 94 of the Monetary Policy Statement 2011-12, the Reserve Bank of India in August 2011 set up a Committee to re-examine the existing classification and suggest revised guidelines with regard to PSL classification and related issues (Chairman: Shri M V Nair). The Committee submitted its report in February 2012, which was placed in public domain for comments.

The main recommendations of the above Committee, under the Chairmanship of Shri M.V. Nair, inter-alia, were as under:

(I) Target under PSL for domestic scheduled commercial banks retained at 40% of Adjusted Net Bank Credit (ANBC) or credit equivalent of Off Balance sheet exposure (CEOBE), whichever is higher. However, a target of 40% for Foreign Banks, proposed;

(ii) Distinction of Direct and Indirect agriculture within the overall target of 18% for Agriculture credit is proposed to be discontinued. A sub-target of 9 per cent of ANBC is proposed for loans extended by banks to small and marginal farmers, to be achieved in stages latest by 2015-16. Similarly, a sub-target of 7 per cent of ANBC for loans extended to micro enterprises, to be achieved in stages latest by 2013-14, proposed;

(iii) Establishment of Agriculture Credit Risk Guarantee Fund for Small and Marginal Farmers, similar to Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE), proposed;

(iv) Scope of weaker sections proposed to be widened by including priority sector loans to individual women and housing loans to economically weaker sections & low income group segments;

(v) The ceilings for various activities for qualifying under priority sector are proposed to be revised;

(vi) Inclusion of loans given to individuals for setting up off-grid solar and other renewable energy solutions for households proposed to be included in priority sector.

Categories of Priority Sector lending

Presently, the broad categories of priority sector for all SCBs are as under:
(i) Agriculture
(ii) Micro and Small Enterprises
(iii) Education
(iv) Housing
(v) Export Credit
(vi) Others

RBI's revised guidelines on PSL:

The Reserve Bank of India (RBI) has, revised its guidelines on Priority Sector Lending (PSL) on 20.07.2012 and issued some clarifications on 17.10.2012. The following important activities, inter alia, form part of priority sector lending as per the revised guidelines:

1. Overall target under priority sector is retained at 40 per cent.

2. The targets for both direct and indirect agricultural lending are kept unchanged at 13.5 per cent and 4.5 per cent of Adjusted Net Bank Credit, respectively.

3. Priority Sector lending includes following activities as per the revised guidelines:

   a) Loans to Micro and Small Service enterprises up-to Rs.5 crore and all loans to Micro and Small manufacturing enterprises;

   b) Loans up to Rs.25 lakh for housing in metropolitan centres of population above Rs.10 lakh and Rs.15 lakh at other centres;

   c) Loans to Food and Agro processing units;

   d) Loans to individuals for educational purposes including for vocational courses up to Rs.10 lakh in India and Rs.20 lakh abroad;

   e) Loans for housing projects exclusively for economically weaker sections and low income groups, provided the cost does not exceed Rs.10 lakh per dwelling unit;

   f) Loans to distressed farmers indebted to non institutional lenders;

   g) Overdrafts up to 50000/- in No-Frills account;

   h) Loans to State Sponsored Organisations for scheduled castes and scheduled tribes;

   i) Loans to individuals for setting up of off-grid solar and other off-grid renewable energy solutions for households;

j)   Loans to individuals other than farmers up to Rs.50000/- to prepay their debt to non-institutional lenders.

4.   Foreign banks having 20 or more branches in the country have been brought on par with domestic banks for priority sector targets in a phased manner over a maximum period of 5 years starting April 1, 2013 to March 31, 2018. They will be required to submit an action plan for achieving the targets over a specific time frame to be approved by RBI.

5.   The foreign banks with less than 20 branches have no sub targets within the overall priority sector lending target of 32 per cent.

6.   Bank loans to Primary Agricultural Credit Societies (PACS), Farmers' Service Societies (FSS) & Large Adivasi Multi-Purpose Co-operative Societies (LAMPS) ceded to or managed/controlled by such banks for on-lending to farmers for agricultural and allied activities are included under direct agriculture.

3)   Opening of no-frills accounts: providing a bank account with no accessing fee or with a minimum fee is called no-frills account. With the help of no-frills account a vast section of community is in the position to access the banking services with a nominal fee.

4)   Relaxation on know-your-customer (KYC) norms: KYC requirements include the name, age, address and other relevant details about a customer. Banks were providing relaxation in these norms as per the instructions of RBI in 2005 only for small account. It has now been further relaxed to include the letters issued by the Unique Identification Authority of India containing details of name, address and Aadhaar number.

5)   GCC: GCC stands for General Credit Card which is a useful tool for providing easy credit to the disadvantaged people. With a view to helping the poor and the disadvantaged with access to easy credit, banks have been asked to consider introduction of a general purpose credit card facility up to 25,000 at their rural and semi-urban branches. The objective of the scheme is to provide hassle-free credit to banks' customers based on the assessment of cash flow without insistence on security, purpose or end use of the credit. This is in the nature of revolving credit entitling the holder to withdraw up to the limit sanctioned.

6)   Simplified Branch Authorization: To address the issue of uneven spread of bank branches, in December 2009, domestic scheduled commercial banks were permitted to freely open branches in tier III to tier VI centres with a population of less than 50,000 under general permission, subject to reporting. In the north-eastern states and Sikkim, domestic scheduled commercial banks can now open branches in rural, semi-urban and urban centres without the need to take permission from RBI in each case, subject to reporting.

7)   Schemes like PMJDY, PMSBY, PMJJBY, and APY: Pradhan Mantri Jan Dhan Yojana was launched with a view to opening the bank account of a major portion of the population. In PMJDY, the bank account is to be opened with zero balance and account is attached with a life insurance. This scheme has noticed a grand achievement in the initial stage of its introduction.

As per the article **"Jan Dhan gives fillip to government's mission of financial inclusion as more people sign up"** published in Economic Times, by **Saikat Das** and **Shilpy Sinha**, The government's mission to provide a bank account for every household and social security schemes for the poor is slowly taking root, with more people signing up for them, improving the prospect of achieving financial inclusion for all.

8)   KCC: KCC Stands for Kisan Credit Card. This instrument is used for providing affordable credit for farmers in India. It was started by the GoI, RBI and NABARD for providing timely and adequate credit to the Indian farmers. This facility was first introduced in 1998-1999. The purpose of KCC is to provide timely and adequate credit to farmers to meet their production credit needs (cultivation expenses) besides meeting contingency expenses, and expenses related to ancillary activities through simplified procedure facilitating availment of the loans as and when needed. Followings are the persons eligible for the loan under KCC:

a) All farmers-individuals/Joint borrowers who are owner cultivators.

b) Tenant farmers, Oral lessees and Share Croppers etc.

c) SHGs or Joint Liability Groups of farmers including tenant farmers, share croppers etc.,

Factors Affecting Financial Inclusion

Factors having an impact on financial inclusion include the demand side factors as well as supply side factors. In Indian economy, the supply side factors are the various tools and parameters used by the Reserve Bank of India and Government of India which have discussed earlier. On the other part, the demand side factors include many regions, segment of the population and sub sectors of the economy. These sectors have low demand for the financial and banking services. So these sections of the community must be properly focused. In order to improve the level of inclusion, demand side efforts need to be undertaken including improving human and physical resource endowments, enhancing productivity, mitigating risk and strengthening market linkages.

Both factors are equally important for the growth of financial inclusion in the Indian economy. Government of India and the Reserve Bank of India have focused more on the supply side factors and delivery system for the financial inclusion which will lead to create a demand for these financial services and boosting the inclusion of vulnerable groups into the ambit of financial services.

CONCLUSION

Data show that there is exclusion and that the poorer section is not covered under the area of financial inclusion. They were unable to access the financial services adequately. The farmers and sub marginal farmers, low income groups and other vulnerable groups need to be focused and must be provided with the easy credit and financial services delivery system. The delivery system of credit and other financial services should develop rapidly in order to bring the disadvantaged people within the area of finance. However, creating an appropriate credit delivery system is the only necessary condition. Banks are working for the inclusion while the Government is working for the employment generation and both are working together to achieve the goal of financial inclusion. These both can bring about the desired change of greater inclusion quickly.

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Use of Social Networking as an Effective Marketing Tool in the Promotion of a Product

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ABSTRACT

Social networking is not a new or novel concept. It has been around for thousands of years. Right since human beings sat around a fire to discuss the activities of the day. It then evolved to social interactions in communities and market places, pubs etc. In the current scenario it has taken the shape of interactions through the electronic media, more popularly the internet and mobile phones. The only difference is that there is no limit the number of people who can interact through these platforms.

The Best-in-Class marketing companies have begun to leverage enterprise social networks to foster greater sharing of ideas, information and knowledge across their enterprise. This paper seeks to explore how marketing may be used to boost sales, service and support functions by leveraging emerging social networking and collaboration for greater teamwork and productivity. These days, enterprises have started using a new group of social networking tools and technology designed for implementation within enterprise environments to increase collaboration and ultimately, competitiveness. Social networking once considered to be far from marketing is getting more focus and attention for improving competitiveness. This is changing rapidly, and some of the specific areas of inquiry are:
- *What is the status and extent of enterprise social networking companies?*
- *What stage of maturity are manufacturers at, with regard to enterprise (e.g., product design, supply chain, production, service and support etc.) is enterprise social networking having the greatest impact?*

Keywords: Social Media, Networking, virtual community, Social media marketing

INTRODUCTION

Social Media and Networking

The word "Social media" can be derived from two words which constitute it. *Media* generally refers to advertising and the communication of ideas or information through publications/channels. *Social* implies the interaction of individuals within a group or community. Taken together, *social media* simply refers to communication/publication platforms which are generated and sustained by the interpersonal interaction of individuals through the specific medium or tool.

Social networking is not a new or novel concept. It has been around for thousands of years. Right since human beings would sit around a fire and discuss the activities of the day. It then evolved to social interactions in communities and market places, pubs etc. In the current scenario it has taken the shape of interactions through the electronic media, more popularly the internet and mobile phones. The only

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difference is that there is no limit the number of people who can interact through these platforms. Alternatively referred to as a **virtual community or profile site, a social network** is a website on the Internet that brings people together in a central location to talk, share ideas and interests, or make new friends. This type of collaboration and sharing of data is often referred to as **social media**. Unlike traditional media that is often created by no more than 10 people, social media sites contain content that has been created by hundreds or even millions of different people. Social networking is the grouping of individuals into specific groups.

Social networking is the practice of expanding the number of one's business and/or social contacts by making connections through individuals. While social networking has gone on almost as long as societies themselves have existed, the unparalleled potential of the Internet to promote such connections is only now being fully recognized and exploited, through Web-based groups established for that purpose.

Based on the six degrees of separation concept (the idea that any two people on the planet could make contact through a chain of no more than five intermediaries), social networking establishes interconnected Internet communities (sometimes known as personal networks) that help people make contacts that would be good for them to know, but that they would be unlikely to have met otherwise.

In general, here's how it works: you join one of the sites and invite people you know to join as well. Those people invite their contacts to join, who in turn invite their contacts to join, and the process repeats for each person. In theory, any individual can make contact through anyone they have a connection; to any of the people that person has a connection to, and so on.

Social Networking Sites
Social networking site is the phrase used to describe any web site that enables users to create public profiles within that Web site and form relationships with other users of the same web site who access their profile. Social networking sites can be used to describe community-based web sites, online discussions forums, chatrooms and other social spaces online.

Many forms of social interaction take place online already: communication, information exchange, sharing of experiences, dissemination of individual creativity and entertainment etc. The social media offers the scope and opportunity to understand what people like to talk about, their buying habits, and discover different emerging trends that are likely to affect their future buying behavior. Social media also offers a cost effective way to work out strategies to overcome some of the key challenges of marketing, such as building awareness, educating customers and building and connecting the customer and his friends, thereby tackling the trust factor which plays a key role in influencing customers. There are number of sites in India where one can get reviews about different products and services. In online platform, it is becoming highly crucial for online shopper to get feedback and suggestions, especially in the pre-shopping engagement in order to save time and money. Customers view these sites to get an unbiased piece of information. These sites create a positive impact in increasing the average order size.

Types of Social Networking Sites

- **Bebo** (http://www.bebo.com/) - A popular social networking site where users can share photos, stories, their journal, and more with friends and family privately or publicly on the Internet.
- **Classmates** (http://www.classmates.com/) - One of the earliest and most used websites that brings together and allows people who graduated from high school and allows people to keep in touch with them and any future reunions.
- **Facebook** (http://www.facebook.com/) - The most popular social networking website on the Internet. Facebook is a popular destination for users to setup their own personal web pages, connect with friends, share pictures, share movies, talk about what they're doing, etc.
- **Friendster** (http://www.friendster.com/) - A popular social network that brings together friends, family, and allows people to meet new people who share similar interests, from all over the world.
- **LinkedIn** (http://www.linkedin.com/) - One of the best if not the best locations to connect with current and past co-workers and potentially future employers.

- **MySpace** (http://www.myspace.com/) - A popular social network and one of the most viewed website on the Internet.
- **Orkut** (http://www.orkut.com/) – One of the pioneers of Social Networking. A popular service from Google that provides a location to socialize with friends and family, and meet new acquaintances from all around the world.
- **Path** (http://path.com/) - A mobile only social network that allows people to keep in contact with their closest friends and family.
- **Pinterest** (http://www.pinterest.com/) - An upcoming and popular picture and sharing service that allows anyone to easily share pictures, create collections, and more.
- **StumbleUpon** (http://www.stumbleupon.com/) - Another very popular community of Internet users who vote for web pages they like and dislike and allows users to create their own personal page of interesting sites they come across.
- **TagWorld** (http://www.tagworld.com/) Great clean social networking site that brings users together who enjoy similar music tastes or other similar interests. In addition to allowing users to create their own blog users can post videos, music, etc or browse other user's videos and music.
- **Twitter** (http://www.twitter.com/) - Another fantastic service that allows users to post 140 character long posts from their phones and on the Internet. A good way to get the pulse of what's going on around the world.
- **Windows Live Spaces** (http://spaces.live.com/) - A service by Microsoft that allows any user to create their own personal blog and social networking site.
- **Yik Yak** - Smartphone social network that connects users who are close to each other.
- **YouTube** (http://www.youtube.com/) - A great network of users posting video blogs or Vlog's and other fun and interesting videos.
- **Whatsapp:** The latest and the fastest growing social networking site, which was recently acquired by Facebook. It has the advantage of being accessed easily through mobile phones and has reached nearly 900 million users.
- **Google+** is the new Facebook competitor, and it promotes the same fun, casual atmosphere. On Google+ people can upload and share photos, videos, links, and view them.
- **Reddit** is a social media platform for the extremely tech-savvy community. Majority of the users are young, geeky, liberal, and internet-obsessed.

Social media marketing is a form of internet marketing that implements various social media networks in order to achieve marketing communication and branding goals. Social media marketing primarily covers activities involving social sharing of content, videos, and images for marketing purposes. Significantly different from conventional marketing strategies, Social Media Marketing offers three distinct advantages. One, it provides a window to marketers to not only present products / services to customers but also to listen to customers' grievances and suggestions. Two, it makes it easy for marketers to identify various peer groups or influencers among various groups. And, three, all this is done at nearly zero cost (as compared to conventional customer outreach programmes) as most of the social networking sites are free.

Social media is a valuable medium for customer engagement and lead generation. While the power of social media will always lie in the person-to-person connections between users, these networks are being monetized and sustained by successful brands and advertisers. For a brand to fare well in its social media marketing campaign it should know how their target audience is likely to be engaged with their brand and will be interested in using their products. Social media is a great platform for smaller brands to engage with customers. The social media campaign is all about leveraging the interest of the audience that is relevant to the product they are selling. People based, personalized content is the key for brands that want to crack the huge opportunity of social media marketing. "People are demanding personalized content and the best brands are delivering it. Social media gives marketers a voice and a way to communicate with peers, customers and potential consumers. It personalizes the "brand" and helps you to spread the message in a relaxed and conversational way.

The rising public enthusiasm and involvement with social media presents businesses with new realities and challenges. The impact of social media on consumer perceptions, attitudes and behavior is substantial; social media are becoming a major

source of customer information and empowerment, while the dominance of traditional mass media and other conventional marketing tools as consumer influencers is steadily declining. Today people are spending more time on the internet than on traditional media like print and even broadcasting media like television and radio. Increasing number of people are now accessing social media through their mobile phones, while waiting at the airport, in queues, railway stations, while travelling etc. The use of social media is more dramatic among the younger generation, who are also major consumers of most products.

Consumers have extensive access to product information, reviews, comments and recommendations contributed by other users and there are already indications that consumers find such recommendation more credible than information provided by corporations or specialists reviews or advertisements. Majority of the online customers check product reviews, before buying products, particularly durables like cars, bikes, mobile phones etc.

Social media can be used as an active or passive marketing tool, as platforms for communication/ promotion, customer interaction and customer feedback.

Online promotions using social commerce – A growing trend
Worldwide there are 1.49 billion active users of facebook and there are 125 million people on Facebook in India and 114 million of those users have accessed Facebook on their mobile phones. The major reasons for this growth are the increasing penetration of mobile Internet and higher purchases of smart phones.

Social Media Marketing in India is being undertaken by brands like Tata Docomo, MTV India, Channel V, Clear Trip, Tata Photon, Axe deodorants, Microsoft, Naukri, Shaadi and many more. Besides, numerous Indian celebrities are also using SMM platform to promote their movies, music and events via Twitter, Facebook and personalized blogs.

The extent of the use of social media in Marketing can be gauged by the fact that there are 900,000 businesses which are using the facebook pages for some form of Marketing. Facebook, launched its

"Messenger Platform" for businesses. Businesses will now be able to connect directly with over 600 million Facebook Messenger users to create and share content. The social media marketing plan is fast becoming an essential part of the promotion mix of an organization.

The importance of social media as platforms of social interaction, communication and marketing is growing. Increasing numbers of businesses in various industries have already integrated or plan to integrate social media applications into their marketing programs. Higher education institutions show increased interest in the potential of social media as a marketing tool. Particularly important is the potential of these tools to reach and attract future students.

A recent study, "The State of Small Business Report," sponsored by Network Solutions, LLC and the University of Maryland's Robert H. Smith School of Business, points to economic struggles as the catalyst for social media's rapid popularity. The study results show that social media usage by small business owners increased from 12% to 24% in just the last year, and almost 1 out of 5, actively uses social media as part of his or her marketing strategy. In 2009, only 23% of marketers were using social media for years. Now that number has grown to 31%.

A research shows that charitable organizations are still outpacing the business world and academia in their use of social media. In a study conducted in 2008, a remarkable eighty-nine percent of charitable organizations are using some form of social media including blogs, podcasts, message boards, social networking, video blogging and wikis. A majority (57%) of the organizations are blogging. Forty-five percent of those studied report social media is very important to their fundraising strategy. While these organizations are best known for their nonprofit status and their fundraising campaigns, they demonstrate an acute, and still growing, awareness of the importance of Web 2.0 strategies in meeting their objectives.

Associating social networking sites with online promotion campaigns:
Social Media is now the trend. And for businesses it represents a marketing opportunity that goes

beyond the traditional middleman and connects companies directly with customers. **Using social media in marketing** does more than improve site traffic and help businesses reach more customers; it provides a valuable venue for better understanding and learning from the target audiences.

However each social networking platform has a unique environment. Various social media marketing sites will require different techniques to develop a unique strategy. The basic way in which companies use social media to promote their products / services will depend upon the type of website.

Some of the advantages of using Social Media Marketing are:
- Website traffic
- Conversions
- Brand awareness
- Creating a brand identity and positive brand association
- Communication and interaction with key audiences
- Increasing traffic/subscribers.
- Building new business partnerships.
- Rise in search engine rankings.
- Generating qualified leads due to better lead generation efforts.
- Selling more products and services.
- Reduction in overall marketing expenses.

OBJECTIVES OF STUDY

- To find out the extent of usage of Social Networking for Marketing.
- To identify the companies which are actively using social Networking for Marketing.
- To study the response of various categories of consumer to marketing over the social Networking sites.
- To identify the demographic and psycho-graphic profile of consumers who respond to marketing offers on Social Networking sites
- To identify the product categories which are more commonly used for marketing through Social Networking Sites?
- To study the consumer purchasing process through Social Networking Sites.

METHODOLOGY

A Conclusive- Descriptive Research Design has been used in the study. A survey was conducted with the help of a structured questionnaire and a convenience sample of 150 respondents was used for the study. Only valid and complete questionnaires were used and incomplete or ineligible questionnaires were not considered. The questionnaires were administered by personal interview covering Bareilly city (urban areas) only. Of the total respondents, 88 were females and 62 were males. Over all it can be summerised as

- **Research Design:** A Conclusive descriptive study was carried out.
- **Sources of information:** Study of primary as well as secondary sources such as journals, books, magazines, websites etc. was carried out. Secondary sources also include working papers and online journals.
- **Research Method:** A sample survey of consumers was carried out with the help of a structured and undisguised questionnaire.
- **Method of administration:** The method of administration was through personal interviews, so that the researcher could also observe the body language of respondent also.
- **Sampling Method:** Convenience & judgmental sampling was used for both consumers. Complete care was taken to ensure that the sample is truly representative of the population.
- **Sampling Units:** The respondents for the consumer study were selected from a cross section of the society with varying demographic profiles i.e. age, income gender and occupation, and include people who actively used social media.
- **Sample size:** A sample of 150 valid respondents was taken for the consumer study.
- **Domain of study:** The geographical scope of the study was restricted to the urban areas of Bareilly region.

FINDINGS & ANALYSIS

Table 1: Profile of respondents by category/class Gender

Gender	No. of respondents	Percentage
Males	62	41%
Females	88	59%
Total	150	100%

41% of the respondents were males and 59% were females

Table 2

Age Group	No. of Respondents	Percentage
<18	14	9%
19-28	65	41%
29-38	58	39%
39-48	10	7%
>49	3	2%
Total	150	100%

9% of the respondents belonged to <18 years age group, 41% belonged to 19-28 years age group, 39% of the respondents belonged to 29-38 years age group, 7% of the respondents belonged to 39-48 years age group and 2% of the respondents belonged to >49 years age group

Table 3

Occupation	No. of Respondents	Percentage
Service	34	23%
Business	17	11%
Self Employed	14	9%
House Wife	41	27%
Students	41	27%
Others	3	2%
Total	150	100%

23% of the respondents belonged to the service class, 17% carried on business, 9% of the respondents were self employed, 27% were housewives, 27% were students and 3 % belonged to other categories.

Table 4

Monthly Income in Rs	No. of Respondents	Percentage
< Rs 10,000/-	86	57%
Rs 11,000- Rs 20,000	27	18%
Rs 21,000- Rs 30,000	21	14%
Rs 31,000- Rs 40,000	9	6%
>Rs 41,000	7	5%
Total	150	100%

57% of the respondents were earning less than Rs 10,000/- pm, 18% were earning Rs 11,000-Rs 20,000./-pm, 14% were earning Rs 21,000-30,000/-pm, 6% were earning Rs 31,000-40,000/- pm and 5% were earning more than Rs 41,000/- pm.

Table 5: Preference for Social Media sites

Website	No. of respondents	% of respondents
Facebook	141	94
Instagram	10	7
Twitter	37	25
Pinterest	12	8
Google+	3	2
Linkedin	90	60
YouTube	63	42
Whatsapp	145	97
Others	15	10

Facebook and Whatsapp appear to be the most popular websites for social networking sites with 94% and 97% respondents respectively using it.

Table 6: Reasons for using a social networking site

Website	No. of respondents	% of respondents
To keep in touch with friends and family.	144	96
To meet new people	47	31
To make professional and business contacts.	33	22
To share photos, videos, and music	148	99
To play games	39	26
To discover new music, books, films, and other entertainment	39	26
To find information and share feedback about brands and products.	27	18
To promote a business or cause	14	9
Others	9	6

Majority of the respondents use social networking sites for keeping in touch with family and friends and also for sharing pictures and videos.

Table 7: Impact of advertisement on social networking on purchase decision

	No. of respondents	% of respondents
Yes	69	46
No	81	54
Total	150	

36% respondents said that advertisements on social media sites effected their purchase decisions.

Table 8: Impact of advertisement on social networking on purchase decision for various categories of products

Website	No. of respondents	% of respondents
Apparel & accessories	63	91
Mobile phones	65	94
Computers and tablets	36	52
Household appliances	18	26
DVDs and Music CDs	9	13
Books	7	10
Food & Beverages	14	20
Others	6	9

91 and 94% of the respondents who were influenced by advertisements said that Apparel & accessories and mobile phones were the two most popular categories for which advertisements had an impact on purchase decision.

Table 9: Use social media for business/profession

	No. of respondents	% of respondents
Yes	26	17
No	124	83
Total	150	

Only 17% respondents used the social media for business/professional use

Table 10: Respondents as members of a fan page

	No. of respondents	% of respondents
Yes	37	25
No	113	75
Total	150	

Only 25% respondents were members of a fan page.

Table 11: Contacting a product, or company through social media

	No. of respondents	% of respondents
Yes	20	19
No	121	81
Total	150	

Only 19% respondents used the social media to contact a company

Table 12: Effect of information on social media on purchase decision

	No. of respondents	% of respondents
Yes	58	39
No	92	61
Total	150	

39% respondents agreed that information found on the social media had an impact on their purchase decisions.

Table 13: Trusting social media posts

	No. of respondents	% of respondents
Yes	64	43
No	86	57
Total	150	

Table 14: Types of information provided by social media sites

Website	No. of respondents	% of respondents
Feedback about quality of products /services	94	63
Information about product prices	138	92
Information about product variety	84	56
Information about product availability /sellers	76	51
Information about new product launches	131	87
Information about online stores	69	46
Others	32	21

92% of the respondents looked for information about prices, and 87% of the respondents looked for information about new product launches on the social media websites.

CONCLUSIONS

The overall inference of the study can be concluded under different points.

1. Facebook and Whatsapp appear to be the most popular websites for social networking sites with 94% and 97% respondents respectively using it.

2. Majority of the respondents use social networking sites for keeping in touch with family and friends and also for sharing pictures and videos.
3. Majority of the respondents said that advertisements on social networking websites did not influence their purchase decisions.
4. Apparel & accessories , mobile phones and computers were the most popular categories for which advertisements had an impact on purchase decision.
5. Majority of the respondents i.e. 83% did not use the social media for business/professional purposes.
6. Majority of the respondents i.e. 75% were not members of any fan page.
7. Majority of the respondents i.e. 81% did not use the social media to contact a company.
8. Majority of the respondents i.e. 61% respondents agreed that information found on the social media did not have any impact on their purchase decisions.
9. Majority of the respondents i.e. 57% of the respondents did not trust posts on social media websites.
10. Majority of the respondents looked for information about prices, and new product launches on the social media websites

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Adequacy of Human Resource in Elementary Education in India - A Critical Evaluation

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ABSTRACT

Human resource is an important aspect of education system. The lack of adequate number of teachers is intertwined with high student classroom and student teacher ratio. Human Resources like teachers, head masters, clerks, para teachers, Counselors and other support staff are a major quality component in Primary Education. Objective of the study is to assess the human resources in Primary education. In Bareilly district Bhuta block is study area. This block is also selected randomly. Quality Assessment Inventory was used for data collection. Finding shows that maximum number of schools has four to six teachers. This lack of teacher is often a result of great distances between residential areas and schools. These schools are also facing the shortage of safai karamcharies which results in inadequate hygiene. Clerks and other staff are also much less in number than required and all these functions are also performed by the teachers of these schools. Some of these teachers are not qualified and trained for teaching.

INTRODUCTION

It is widely acknowledged that the availability of adequate numbers of well-qualified and trained teachers is the key to educational development. In view of this, most countries spend huge resources on teachers' salaries and their professional development. Data on teachers in India reveals a significant increase in the number of teachers alongside the expansion of educational facilities. The number of teachers in primary schools increased from 1.6 million in 1990-1991 to 1.9 million in 2000-2001. The rise in the number of teachers in upper primary schools over the same period was from 1.1 million to 1.3 million. In addition, 2 million para-teachers (teachers employed on a contract basis, often without qualifications) were appointed in 2003.The number further increased because of the requirement under SSA for schools at the primary level to have at least two teachers. The total number of teachers employed in lower and upper primary schools in India is nearly 3.7 million. However, only 57,538 primary schools have four or five teachers (See Table 1.1). It appears multi grade teaching is a common phenomenon across India.

It was also found that around 5%-6% of these teachers were Para-teachers, who often did not have professional training qualifications. This raises concerns about the quality of education being offered. It is also a matter of concern that while there has been an enormous increase in the enrolment of children in primary schools, the recruitment of adequate numbers of teachers to teach them has not happened. In fact, in general, state governments are slow in recruiting teachers even to fill existing positions, resulting in a huge backlog of vacant teacher posts in all states. Notwithstanding the

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recruitment of teachers on a contract basis, the teacher-pupil ratio is far above the norm of 1:40 in many individual states, pushing even the national average to 1:42. In particular, the situation remains worst in Bihar, Jharkhand, Uttar Pradesh and West Bengal.

Table 1.1: Teacher Numbers in Primary Schools

Types of Schools	Numbers
Primary schools with no teacher present (on the days of the survey)	8,465
Single teacher schools	97,670
Primary schools with two teachers	281,278
Primary schools with three teachers	108,228
Primary schools with four teachers	57,538
Primary schools with five teachers	39,224
Total Schools	**651,381**

Table 1.2: Pupil-Teacher Ratios in Rural and Urban Elementary Schools

State/UT	*Primary Schools*			*Upper Primary Schools*		
	Rural	**Urban**	**Total**	**Rural**	**Urban**	**Total**
Andhra Pradesh	32	35	33	31	27	30
Arunachal Pradesh	28	22	27	25	27	25
Bihar	30	60	83	77	51	73
Chattisgarh	85	40	43	40	29	37
Goa	43	25	21	13	21	16
Gujrat	28	37	31	38	40	38
Haryana	42	35	41	27	22	26
Himachal Pradesh	22	23	22	15	13	15
Jammu & Kashmir	21	11	19	20	14	18
Jharkhand	59	53	59	60	48	57
Karnataka	26	28	26	37	37	37
Kerala	28	28	28	28	26	28
Punjab	39	36	38	17	24	18
Rajasthan	42	33	41	34	25	31
Uttar Pradesh	61	36	55	37	29	35
Uttrakhand	29	27	29	19	22	19

Chandigarh	38	33	34	35	13	24
Delhi	38	40	40	26	27	27
Lakshadweep	19	21	20	20	21	21
Pondicheri	20	23	21	25	20	23
All India	**44**	**36**	**42**	**35**	**32**	**34**

Source: NCERT (2005)
Note: Pupil-teacher ratios are based on numbers of full-time teachers, including para-teachers.

Moreover, teacher transfer is highly influenced by political interventions, and more influential teachers are more likely to be found working in urban schools and schools located in habitations well connected with road or rail transport networks. The lack of basic facilities (for instance, residential facilities in remote rural areas) also acts as de-motivating factors, particularly for female teachers. These factors undoubtedly influence pupil-teacher ratios (PTRs), with the average PTR higher in rural areas than in urban areas.

Objectives of the Study
The objectives of the study are to assess the quality of human resource available at schools.

Sample
Due to the paucity of time there was a need to select an adequate sample for the study. Thus, from the seven blocks of Bareilly region one block was randomly selected. The block thus selected turned out to be Bhuta. From the schools of Bhuta block 15 schools were again randomly selected from the rural area and 15 schools and 15 schools from urban (in town / near town) area. The number selected turned out to be 8 primary and 7 upper schools in rural area and 7 primary and 8 upper primary schools in urban area.

Tools of Data Collection
The study involved empirical investigation of assessing quality elementary education. Quality Assessment Inventory (QAI) was prepared. The Quality Assessment Inventory contained statements / questions covering various dimensions including human resources. Each dimension contained questions/statements that were based on the parameters suggested by the Sarva Shiksha Abhiyan (SSA).

ANALYSIS AND DISCUSSION

Table 1.3: Human Resources in Primary schools

Human Resources	1-3	4-6	6-8	8 & Above
Head Master	100.00	--	--	--
Teachers	26.66(8)	46.66(14)	26.66 (8)	--
Clerk	--	--	--	--
Peon	--	--	--	--
Cook	100	--	--	--
Attendant	100	-	--	--
Safai karmchari	13.33(2)	-	--	--

The table 1.3 reveals that 46.66 percent primary schools of rural area have 4 to 6 teachers. 26.66 percent primary schools have surplus teachers or 6 to 8 teachers. The reason there of may be that the schools have more than one section for the class. Table 5.1 also reveals that there is no provision of clerical staff; it means the teachers have to do all clerical work in the school. The rural schools are cleaned daily but safai karmcharies are few. However, in rural schools children themselves clean their classrooms and school premises. Every school has one or two cooks and attendants for the preparing midday meal.

Table 1.4: Average number of teachers (2009-2010)

School Category	Rural areas	Urban Areas
Primary	3.7	5.2
Upper Primary	4.6	5.33
Total	4.2	5.12

The average number of teachers imparting elementary education is not satisfactory. A significant difference is noticed in the availability of teachers in rural (4.2) and urban area (5.12) schools. A wide difference, in respect to availability of teachers, is also seen between primary and upper primary schools. The average number of teachers in reference to school category reveals that the highest numbers of teachers are available in upper primary schools of urban areas. The lowest number is noticed in primary schools of rural area.

Table 1.5: Number of Teachers (Male / Female) in schools surveyed in Bareilly

Types of school	% of Trained Teachers	% of Female Teachers	Pupil Teacher ratio
Primary Schools	98.36	56.45	52.47
Upper primary school	95.82	62.66	47.34

The table 1.5 also reveals that most of the teachers of primary and upper primary level are trained. Whether, they have JBT, BTC or B.Ed. degree. The numbers of female teachers are more in upper primary schools in comparison to primary level. The student teachers ratio is highest in primary level i.e 52 students per teacher and teachers are assigned to take two classes at the same time. In these circumstances, the teacher cannot provide individual attention to the students. As a result there is low quality education and higher dropout rate.

MAJOR FINDINGS

Following observations conclude the findings:

(i) All the schools in the district have a head master. Maximum percentage of schools has four to six teachers. There are eight schools out of fourteen in the region that have six to eight teachers. Eight schools in the district have one to three teachers. No clerks or peon are found in any of the primary schools. Atleast one cook is present in every school of the region; the same observation is made about the attendants in the schools. Only two schools of the region have safai karamcharies.

(ii) Number teachers are higher in urban area in comparison to rural area, in some schools number of teachers are surplus in urban area.

(iii) Most of the teachers in these elementary schools are trained. Percentage of female teachers is more than male teachers. More than fifty five percent teachers in these schools are female. Pupil- teacher ratio in these schools in very high.

CONCLUSION

Human resource is an important aspect of education system. The lack of adequate number of teachers is intertwined with high student classroom and student teacher ratio. Teachers are over burdened and become stressed with the clumsy arrangement of things. Their class management and teaching skills are staked with question. This lack of teacher is often a result of great distances between residential areas and schools. These schools are also facing the shortage of safai karamcharies with results in inadequate hygiene. Clerks and other staff are also much less in number than required and all these functions are also performed by the teachers of these schools. Some of these teachers are not qualified and trained for teaching. In Bareilly District, though, maximum percentages of elementary school teachers are either graduate or post graduate. Some of them are even more qualified to the level of Ph.D. or M. Ph. But Bareilly also has primary teachers who are higher secondary, secondary are below secondary pass outs. Majority of teachers are permanent, rest are temporary.

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Institute of Foreign Trade and Management (IFTM) was a pioneering attempt to provide the world class professional education in the brass city of Moradabad in the year 1996 by a family of public spirited entrepreneurs. It was a joint vision by a philanthropist to the core and visionary in the education arena (Late) Sri Onkar Saran Kothiwal and renowned economist Dr. R.M. Dubey. IFTM was the first institute in entire Rohilkhand region to bring BBA, MBA & MIB programmes for Management education.

Having tasted the success and feeling the appetite of ever growing demands of students and parents alike, IFTM ventured into other areas of professional education. It started offering new courses in Engineering, Pharmacy and Computer Applications to cover the entire spectrum of professional courses. Year 2002 saw the addition of another feather in IFTM's cap whereby a new Engineering institute, College of Engineering and Technology (CET) was established. It offers various undergraduate and postgraduate engineering courses in Computer Science, Electronics & Communication, Information Technology, Mechanical and Biotechnology. By the year 2010, IFTM group has established itself as a niche player by becoming a "**Centre of Excellence**" in various disciplines of professional education providing best in class education for Management, Engineering, Computer Applications and Pharmacy courses. All the technical and professional courses are approved by AICTE with Pharmacy course being also approved by PCI. National Board of Accreditation (NBA) has accredited all the eligible courses.

Year 2010 brought a new dawn for IFTM group and the great dedication, commitment, perseverance; untiring efforts of the entire IFTM team were noticed and appreciated by the government of Uttar Pradesh (U.P.). Hence IFTM was granted the University status by U.P. Government vide IFTM University Act No. 24 of 2010. IFTM University started the operations from the session 2010 as it already had the necessary and university compliant facilities and infrastructure. In an endeavour to expand the horizon of its offerings in professional education space, IFTM University has added more programmes at UG, PG and Doctorate levels in different disciplines. To bridge the gap between High School and Degree courses, IFTM University will also offer the Diploma courses. In addition to professional courses the University has a comprehensive plan to introduce other subjects in the field of Natural, Social and Medical Sciences.

Current times are challenging for Education sector with lot of churn happening and as the saying goes **"Challenging times need unprecedented measures"**, IFTM University embarks upon a journey to be the "Trusted Partner of Choice" for Parents, Students, Teachers and Industry Champions. In this attempt, University now boast to house more then 11000 students and 400 faculty members till date. Thus with the humble beginning in 1996, IFTM has traversed a long path to become IFTM University by 2010. It strives to scale new heights and aspires to forge new partnerships with National & International bodies in order to make an indelible mark on the face of Indian Education.

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School of Business Management (SBM) is one of the most reputed and sought-after Centres of education in the field of management studies in the region.

This school was established in the year 1996 as Institute of Foreign Trade & Management and had been offering the BBA, MBA & MIB programmes of Management of Rohilkhand University, Bareilly, until 2000 when MBA programme came under the affiliation of the Uttar Pradesh Technical University, Lucknow. The Institute has become one of the most reputed Centres of education in the field of management studies and has been producing gold and silver medalists, as well as top ten merit holders on a regular basis since inception. In 2010, it has been reorganized as School of Business Management and is offering UG, PG and PhD in management and commerce, however, Masters of Business Administration has been a flagship course of the school, since its inception.

The School has been a constant contributor in the field of management through its research and development outputs. Doctoral research facilities are available in the various areas of management studies such as Business Economics, Security Analysis and Portfolio Management, Statistical Techniques, Human Resource Development, Supply Chain Management, Tourism Marketing, Advertising & Publicity Management and other functional area of management.

With a well connected network of alumni and reputed recruiters, the school has proven its role in disseminating relevant knowledge to the students and satisfy long list of recruiters. Parle Biscuits Pvt. Ltd., IDBI Bank, Reliance Money Ltd., DBS Bank, Yes Bank, Kudos Ltd., SMC Ltd., Designco Pvt. Ltd. and Micro Turners are just few to name among satisfied recruiters. The decision of prospective candidates to join the school for their career building thus, will be right and rewarding.