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# PRESTIGE INTERNATIONAL JOURNAL OF MANAGEMENT AND RESEARCH

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# Prestige International Journal of Management and Research

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## PRESTIGE INTERNATIONAL JOURNAL OF MANAGEMENT AND RESEARCH

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## A COMPARATIVE STUDY OF MALE AND FEMALE CELEBRITY ENDORSEMENT ON THE BUYING BEHAVIOUR OF DURABLE GOODS

**Khushboo Makwana\*, Yogeshwari Phatak\*\***

*After globalization, competition has been reached to extreme limit. Brands are struggling to occupy distinctive position in the minds of their target customers. Companies are searching for innovative means to transform their effort into success with the help of effective communication. In this path, celebrity endorsement gained attention and became popular way of effective communication. Companies are spending billions to endorse a celebrity for their brand's success. This paper attempts to compare the perception towards impact of male and female celebrity endorsement in durable goods. An empirical study has been conducted and views of customers using durable goods have been tested using statistical tools. The study reveals that perception towards impact of and female celebrity endorsement has a significant difference for durable goods.*

**Keywords:** *Celebrity, Celebrity Endorsement, Durable Goods, Buying Behavior.*

### INTRODUCTION

According to Friedman and Friedman (1978), "a celebrity endorser is an individual who is known by the public for his or her achievements in areas other than that of the product class endorsed". As compared with the other endorser, known personality always have a greater degree of attention, recall value and loyalty and these elements are very helpful for any marketing campaign. The purpose of using famous celebrities is quiet obvious as it leads to high reliability from the customer's end towards the brand. Celebrities are individuals who enjoy public recognition and who use this recognition on behalf of a consumer good by appearing with it in an advertisement thus facilitating the marketing communication for the brand (Junokait, et. al., 2007). A celebrity is a well known personality" actor, entertainer, or athlete" who is known to the public and is popular among the public for his or her accomplishment in areas other than the product class endorsed by him (Shimp, 2003).

Celebrity endorsement has become a common practice in order to differentiate the product from other competing brands in today's highly competitive environment (Erdogan, 1999). The main intention of every advertising strategy is to put into action, the actual behaviour of the targeted audience, be it purchase intention or actual consumption (Sharma, et. al., 2008). The celebrity endorsement can have an impact on the consumers recall evaluations, attention and purchase intentions. At the same time it is important to realise that though the Indian consumers have a certain level of admiration towards the celebrities, it does not ensure that an advertisement with celebrity endorsements will show exceptional results, i.e the purchase intention will be translated into actual purchase (O Mahony and Meenaghan, 1998). Today's marketers are using various promotional techniques to grab the attention of the consumers, and celebrity endorsement is the most popular phenomena in promotional

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mix which have major impact on the buying behaviour of the consumers. A huge increase in the use of celebrities by Indian advertising agencies can be seen over the past five years. What is badly needed today is an effective communication between the marketer and the consumer.

## **REVIEW OF LITERATURE**

Celebrity endorsement's impact on consumer buying intentions was found to be positive. Varnali and Tosun (2017) explain that highly attractive and good looking female models perform better in advertisements related to attractiveness related products. Female models who were moderately attractive worked better in the advertisements of non-attractiveness-related products. It was found that the beauty products were more influenced by female celebrity endorsements due to their self-esteem and body-esteem.

Ahmed et al. (2015) studied the impact of celebrity endorsement on buying behavior. The study was done on 200 students studying in different universities. This was done to know the perception of the students regarding various celebrities and the impact of celebrity endorsement on the buying behavior of consumers. The study concluded on a note that advertisements with celebrity endorsers are more attractive than the advertisements which were non-endorsed. The study revealed that celebrities show a positive relationship with the buying behavior and brand image. It was found that there is a significant impact of celebrity endorsement on the buying behavior.

Choudhary and Mukherjee (2014) studied the buying behavior of consumers towards personal care products. The study was carried out on urban and rural areas of Assam on a sample size of 1140. The study revealed that in a place like Assam, the strategy of employing celebrities for endorsements works the best and is highly

effective. Consumers admire the lifestyle celebrities and thus easily believe them, especially the female consumers, in all the three dimensions – perception towards celebrity, stimuli on buying decision and celebrity endorsement. Buying decision of consumers is affected, influenced and impacted by the perception of consumers towards celebrities. Positive perception towards celebrities makes it easier for consumers to trust them.

Pughazhendi and Thirunavukkarasu (2012) did a research on celebrity advertisement and their impact on purchase attitude towards durable products. The study stated that advertisement plays a significant role in the process of purchase decision as it helps in information search and brainstorming. The consumers are easily convinced by the celebrity when the comparison is between the quality and the price. The purchase behavior is also influenced by celebrity endorsement, product evaluation and brand recognition.

Gibson (2015) compared the two types of advertisements; one with celebrity endorsers and the other with non-celebrity endorsers. They found that there was no significant or major difference between celebrity advertisement and non-celebrity advertisement with respect to attitude of the consumers towards the advertisement, purchase intention and brand.

Jain et al. (2009), studied the perception of consumers about celebrities in electronic media. They used a structured questionnaire and it was employed on a sample of 186 respondents. The findings of the study revealed that customers prefer female celebrities over male celebrities. Just like mentioned above, consumers are inclined towards female celebrity endorsers a little more than they are towards male endorsers. Studies that were carried out earlier have discovered that two contradictory thoughts exist regarding the

association and relation between celebrity endorser's gender and consumer's gender. First thought says that 'customer's behaviour towards product isn't significantly effected by endorser's gender' (Freiden, 1978).

And the second thought says that 'customer's behaviour for products is drastically impacted by endorser's gender'. Whereas some literature had a completely different outlook altogether. It said that both genders had a well enough to do impact on the consumers, but attractive female models played a more significant role in influencing the consumers than attractive male models. Jain and Patel (nd) studied on the same and claimed that the gender of the celebrity endorser was a prime concern only when the product they endorsed was appropriate to them. He also said that, male endorsers were more suitable for advertisements relating to banking, financial services and female endorsers were more appropriate for products like cosmetics, soaps and food items.

## OBJECTIVE

- To compare the male and female celebrity endorsement on consumer buying behaviour with respect to consumer durable goods.

## SCOPE AND DESIGN OF THE STUDY

Research type	: Exploratory
Sampling technique	: Convenient sampling
Sampling unit	: Viewers of celebrity endorsed advertisement of durable goods.
Sample size	: 500

**Tools for data collection:** Questionnaire based on seven point likert scale. Questionnaire consists of 25 questions and it has been administered on viewers of

celebrity endorsed advertisement of non durable and durable goods.

**Tools for data analysis:** T-test .Data was analyzed with the help of statistical package for social science.

## Item Total Correlation

Questionnaire adopted in this study consisted of 25 questions; item total correlation was used in order to check the normality of the sample. As the sample size was 1000, item with correlation value less than 0.1948 should be dropped. All the items in the study had correlation values more than 0.1948 thus; no item was dropped from the questionnaire. Hence, it was found reliable for further analysis.

## HYPOTHESIS

$H_{01}$ : There is no significant difference between the perception towards impact of male and female celebrity endorsement with respect to durable goods.

## Reliability of the Measures

Reliability of the measures was assessed with the use of Cronbach s alpha on all the 25 items. Cronbach s alpha allows us to measure the reliability of different variables. It consists of estimates of how much variation in scores of different variables is attributable to chance or random errors (Selltiz, et al., 1976). As a general rule, a coefficient greater than or equal to 0.7 is considered acceptable and a good indication of construct reliability (Nunnally, 1978). The overall Cronbach s alpha for all the 25 items is .937. Hence, it was found reliable for further analysis.

## RESULTS AND FINDINGS

The Table 2(ii) depicts that the F value for between groups is 9.184 and p value is .003 therefore, null hypothesis  $H_{03}$  namely there is no significant difference in the perception towards impact of male and female celebrity endorsement with respect to durable goods

is not accepted at 5 percent level of significance. It means that the perceptions towards impact of celebrity endorsement namely male and female celebrity are having significant difference in their mean values as far as durable goods are concerned. Perception towards impact of female celebrity endorser is having highest mean value of 5.267 [table 2(i)], while mean value of male celebrity endorsement is 5.05 (table 4(i)b) which represents perception regarding impact of female celebrity endorsement is higher as compared to male celebrity endorsement with respect to durable goods.

## CONCLUSION

In the present study, two similar durable goods, namely mobile phones, of two different brands were used, with two different celebrity endorsers, namely Shahrukh Khan and Katrina Kaif. Both of the aforementioned celebrities fall in the top 5 category of brand endorsers and both of them are admired by the whole nation, are big time youth icons and it has been seen that having them to endorse a brand helps in building the trust and connecting better with the customers. This reflects the confidence; marketers have, in today's superstars. Bollywood Celebrities has a huge impact as they are admired by billions of the nation and have a lot of fan following. While planning to purchase any durable goods, consumers carry out a detailed study of the product and its features and compare it with the other competitive brands that prevail in the market. But this is not where it ends, they also care about the primary and aspirational group (celebrities whom they consider as their idol). Mobile phones are not only used for the purpose of communication but it also represents the status symbol of an individual. Today mobile phones is a prestige symbol for a lot of people. They want the mobile phone they carry to create an image for them

in public. And in this product industry of mobile phones, female celebrities have an upper hand as compared to male celebrities, because of their beauty, lifestyle and effective convincing skills which is quite apparent from the recent study. Hence, marketers are suggested to endorse celebrity for the promotion of their goods.

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**ANNEXURES**

**Table 1 : Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.937	.938	25

**Table 2 (i) : Group Statistics**

Celebrity gender	N	Mean	Std. Deviation	Std. Error Mean
CE Male Celebrity	249	5.0591	.96516	.06116
CE Female Celebrity	250	5.2646	1.13418	.07173

**Table 2 (ii) : Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
CE	Equal variances assumed	9.184	.003	-2.179	497	.030	-.20548	.09430	-.39075	-.02020
	Equal variances not assumed			-2.180	485.188	.030	-.20548	.09427	-.39070	-.02025

## A DEMOGRAPHICAL STUDY OF WORK-FAMILY CONFLICTS AND PSYCHOLOGICAL HEALTH OF THE EMPLOYEES WORKING IN PRIVATE SECTORS OF INDORE

**Deepa Katiyal\*, Khushboo Jain\*\***

*“Life is like riding a bicycle. To keep our balance we must keep moving, while riding if there is an imbalance and if the rider is unable to control he may fall down.”*

*Albert Einstein said these lines which always very appropriate for keeping the balance in work and life of the employees. The researches have shown that if employees are unable to maintain the balance then the results can be very serious. Increase in responsibility, competition, time and demand of the job has increased the imbalance in life thus, people have no time for their family and relatives. Keeping all this in mind the researcher have tried to find out the impact of demographical variables on the work family conflicts and psychological health issues caused by the work life imbalance of the employees working in the private sector of Indore. The research survey was done on 73 employees working in banks, schools, colleges and corporate sector. The hypotheses were tested by applying independent sample t-test and one way ANOVA. High impact of demographical variables on the two dependent variables was found in the results.*

**Key Words:** *Work Life Balance, Work Family Conflicts, Psychological Health Issues, Independent Sample t-test, One Way ANOVA.*

### INTRODUCTION

Work–family conflict is a conflict that occurs as a result of role pressures from the work and family domains. Work role characteristics that are associated with work demands, excessive workload and time pressures. Work demands such as number of hours worked, workload, shift work are positively associated with work–family conflict, which, in turn is related to poor mental health and negative organizational attitudes. All employees working in different professions have some common issues like: family related issues ( parenting, marital status, role conflicts), self related issues( poor time management, taking work back home, no self time), work related issues( unstructured work schedule, non desk jobs, challenges, boss).

Work family conflicts leads to many health problems which can be physical and

psychological. The physical health problems are momentary but psychological issues have long impact on not only the job but also on the day to day life of the individual. Psychological problems can be the loss of confidence, loss of sleep, loss of concentration, depression, thyroid, diabetes, etc.

The study of these two factors is very important because they can lead to less productivity, job dissatisfaction, turnovers, absenteeism and frustrations. The demographical variables for the study are: Gender, Age, Marital Status and Profession. The Gender means male and female, Age is categorized into three sections, starting from 23years to 55 years. Marital status means married and unmarried employees. Four different Professions were taken for study, teachers of schools, faculty members of the colleges, managers of the corporate and

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cashiers of the banks. All the employees are working in the private sectors of the Indore region. In the government sector the environment and provisions are very different therefore not included in this study. They have to be studied separately.

## **REVIEW OF LITERATURE**

Various studies are present on work family conflicts and psychological health issues. Kumari et. al. (2012) did a study on the female executives and concluded that there is a significant relationship between the demographic variables like age, gender, marital status, etc. and perception of Work-Life Balance. Bretz and Judge (1994) did a study on male Executives and found that the more the organizations provided comprehensive policies to accommodate work and family issues, the less work-family conflict are experienced.

Rapoport (2002) reviewed multiple studies related to the impact of shift work on health and observed that “shift and night work may have more specific adverse effects on women’s health both in relation to their particular hormonal and reproductive function, and their family roles”. For women, exposure to the night shift has been linked to increase the risk of breast cancer, higher rates of, sub-fertility, ischemic stroke, and endometrial cancer. Men are not immune to the deleterious effects of shift work.

Felstead et. al. (2002) found that Work-life conflicts has significant negative impact on the workers’ health, psychological and physical needs, and job productivity. Frone, (2003) study on work and family showed links between family-work conflict and lower work satisfaction, lower work performance, and higher job stress and turnover intentions. Netemeyer et al. (2005) also showed connections between family-work conflict and depression, anxiety and substance disorders.

Frone, (2000) said that individuals have to face an inversely proportional scenario in their life with the work life conflicts and wellbeing. It means that the work life affects the wellbeing of an individual to a great extent. The higher the work life conflicts occur, the lower the wellbeing of an individual would be. According to Fisher-McAuley et al. (2003), the relation between employees’ beliefs about having a balance between work and personal life, and the feeling of job stress, job satisfaction, and reasons why one might quit his/her job overload.

Giga and Hoel (2003) said that prolonged association with conflict and stress can have a negative impact on the workers and their organizational performance. Duxbury and Higgins (2003) found that employees with high role overload are three and a half times more likely to have high levels of absenteeism due to physical, mental, or emotional fatigue than counterparts with low levels of role. Higgins, et al. (2007) observed that when the worker’s needs and desires are not fulfilled within the organization, then work-life conflicts tend to begin and this is dangerous for both workers and the company.

Mujtaba and McCartney (2010) identified work-life conflict as one type of stress facing by employees in the modern workplace. Beauregard and Henry (2008) said that if the employees have to face lot of negative work life conflicts, it will be very dangerous for its long term performance. Naithani (2010) told that if work-life conflicts decrease then it can help to increase the overall productivity and performance of the organization. Sikandera et al. (2012) identified that the productivity/performance of the organization is related with the individual’s satisfaction and satisfaction come when excessive work-life conflicts do not exist and this reduces stress in the department.

## RATIONALE

An individual's life can be considered unbalanced when the amount of time one works causes some sort of conflict or stress in other areas of life. The choices people make about their priorities can cause conflict with bosses, co-workers and/or family members (Hill, 2005). Various studies have been conducted to determine the impact of demographic variables on work-life balance of the employees. But very little research has been done on the conflict between work and family roles in societies like ours where people are still living in joint families and culture is very strong. The problems of work life balance can be different in small region of Indore than the metro cities, which encouraged the researcher to study this topic particularly in Indore.

In Indore both spouses have started working but how much support they get from their family and society is a big question. Indore is a traditional city where society is in the changing phase so their work family conflicts can be different from metro cities. The patients of thyroid, depression, diabetes, fatigue, BP are increasing so it was necessary to study the effect of their profession on the health of the employees. The proposed study has been presented with a wide array of factors affecting Work Life Balance that can help the individual employee to explore her values, aspirations and goals to understand what he/she expects from work and life and then develop the suitable ways of balancing them. It would help employees to negotiate their roles within the organization and family. It would enable her to introspect on them job, ways of coping and relationship management.

## OBJECTIVES

- To study the effect of gender on work family conflicts and psychological health issues of employees working in different private sectors of Indore.
- To study the effect of age on work family conflicts and psychological health issues of employees working in different private sectors of Indore.
- To study the effect of marital status on work family conflicts and psychological health issues of employees working in different private sectors of Indore.
- To study the effect of profession on work family conflicts and psychological health issues of employees working in different private sectors of Indore.

## METHODOLOGY

**Research Design:** A descriptive study is carried out to know the impact of demographic factors on work family conflicts and Psychological Health Issues of employees working in different private sectors of Indore.

**Data Collection:** Data were collected with the help of primary and secondary sources. The primary data were collected with the help of a close ended structured questionnaire. The scale was prepared for work family conflict and psychological health issues with eight questions each. The likert scale based questionnaire was prepared with five point rating scale ranging from highly satisfied to highly dissatisfied with a score of five to one. The secondary data was collected from national and international journals, books, magazines and internet.

**Sampling:** The sample of 73 employees from different working sectors was selected from Indore. Convenient Sampling Technique was used. The details of the sample is given in Table- 1.

**Tools for Data Analysis:** The hypotheses were tested using One Way ANOVA and t-test with 5% significance level. Descriptive statistics, Frequency and Percentage Analysis

was also done to explain the details of the research.

### **Hypotheses**

**H<sub>01</sub>**: There is no significant difference between male and female employees on their work family conflicts and psychological health issues working in different private sectors of Indore.

**H<sub>02</sub>**: There is no significant effect of Age on work family conflicts and psychological health issues of employees working in different private sectors of Indore.

**H<sub>03</sub>**: There is no significant difference in the Married and Unmarried employees in their work family conflicts and psychological health issues working in different private sectors of Indore.

**H<sub>04</sub>**: There is no significant effect of Profession on work family conflicts and psychological health issues of employees working in different private sectors of Indore.

### **RESULTS AND DISCUSSION**

**H<sub>01</sub>**: There is no significant difference between male and female employees on their work family conflicts and psychological health issues working in different private sectors of Indore.

The Null hypothesis is tested by applying Independent sample t-test at 5 percent significant level. The H<sub>01</sub> is rejected with .035 and .001 significance level. The mean value shows female employees have more work family conflicts and psychological health issues than male employees. Table-2 shows the effect of gender on work family conflicts and psychological health issues.

**H<sub>02</sub>**: There is no significant effect of Age on work family conflicts and psychological health issues of employees working in different private sectors of Indore.

The null hypothesis is tested by applying One Way ANOVA at 5 percent significant

level. The null hypothesis for age is rejected for both variables at .002 and .001 significance level. LSD Post hoc test also shows a significant difference in the three categories of age. The first category is having fewer problems related to work family conflicts and psychological health issues than the other two categories. Table-3 shows the impact of age on work family conflicts and psychological health issues.

**H<sub>03</sub>**: There is no significant difference in the Married and Unmarried employees in their work family conflicts and psychological health issues working in different private sectors of Indore.

The Null hypothesis is tested by applying Independent sample t-test at 5 percent significant level. The null hypothesis for Marital Status is rejected for both variables at .000 and .022 significance level. The mean value shows the unmarried employees face fewer complexities of work family conflicts and Psychological Health Issues than married employees. Table-4 shows the effect of marital status on work family conflicts and psychological health issues.

**H<sub>04</sub>**: There is no significant effect of Profession on work family conflicts and psychological health issues of employees working in different private sectors of Indore.

The Null hypothesis is tested by applying One Way ANOVA at 5 percent significant level. The null hypothesis for Profession is accepted for both variables at .157 and .289 significance level. LSD Post hoc test also shows no significant difference in the four categories of profession. Table-5 shows the effect of profession on work family conflicts and Psychological health issue.

### **CONCLUSION**

The work life balance is very important in the life of the employees. As in many families both spouses are working, it has become a great matter of concern. The work life and

personal life are very different from each other but there positive correlations lead to a perfect balance in life. Unfortunately many organization are putting too much of pressure on the employees to become competitive, efficient and global which is effecting the life of the employees. The study was conducted to find out the impact of demographical variables on the work family conflict and psychological health issues. It was found that all the variables: Gender, Age, Marital Status and Profession have high impact on both dependent variables. Male and female both have work family conflicts but female, by default, have the full responsibility of the house and children so they face more work family conflicts in their life. The after effects are also seen more in females. The young employees have less household responsibilities so they are able to concentrate more on the job. The middle aged employees especially who are married have responsibilities of the family and children; they have achieved some position in their job and are at senior position so they are the most disturbed and affected category in respect to work life balance variables. In the different professions of the private sector almost same situation exist so not much difference in the work life conflict and psychological health issues were found in the employees working in the banks, schools, education field and corporate sector.

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## ANNEXURES

**Table 1: Sample Description**

Factor	Frequency	Percentage	Total
<b>AGE</b>			73
24-35years	26	35.6	
35-45 years	25	34.2	
45-55 years	22	30.1	
<b>GENDER</b>			73
Male	35	47.9	
Female	38	52.1	
<b>MARITAL STATUS</b>			73
Married	46	63.0	
Unmarried	27	37.0	
<b>PROFESSION</b>			73
School Teachers	12	16.4	
College Educationist	25	34.2	
Bank Employees	13	17.8	
Corporate Employees	23	31.6	

**Table 2: Effect of Gender on work family conflicts and Psychological health issues**

Factor Gender	Mean Value	T value	df	Sig. (2-tailed)	Result
<b>Work family Conflict</b>	Male: 2.30 Female: 3.45	-2.150	70	.035	<b>Significant</b>
<b>Psychological Health Issues</b>	Male: 2.80 Female: 4.22	-3.338	70	.001	<b>Significant</b>

**Table 3: Impact of Age on work family conflicts and Psychological health issues**

Factor Age	Sum of Squares	df	Mean Square	F Value	Sig.	Result
<b>Work family Conflict</b>	10.536	2	5.268	6.843	.002	<b>Significant</b>
<b>Psychological Health Issues</b>	10.936	2	5.468	7.439	.001	<b>Significant</b>

**Table 4: Effect of Marital Status on Work Family Conflicts and Psychological Health Issues**

<b>Factor Marital Status</b>	<b>Mean Value</b>	<b>T Value</b>	<b>df</b>	<b>Sig. (2-tailed)</b>	<b>Result</b>
<b>Work family Conflict</b>	Married: 4.43 Unmarried: 2.15	-4.184	70	.000	<b>Significant</b>
<b>Psychological Health Issues</b>	Married: 3.49 Unmarried: 2.34	-2.335	70	.022	<b>Significant</b>

**Table 5: Effect of Profession on Work Family Conflicts and Psychological Health Issue**

<b>Factor Profession</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>	<b>Result</b>
<b>Work family Conflict</b>	4.862	3	1.621	1.800	.157	<b>insignificant</b>
<b>Psychological Health Issues</b>	4.247	3	1.416	1.281	.289	<b>Insignificant</b>



## A METHODOICAL REVIEW OF LITERATURE ON COMPETENCIES

Ashish Mahajan\*, Rupal Chowdhary\*\*

*Life is increasingly non-routine, problem based and technology reached. That's why content/knowledge based approach for learning doesn't work. Educational institutes are shifting focus from conventional learning methods to competencies based learning. Knowledge and basic skills such as numeracy and literacy are necessary but no longer sufficient to meet the complex requirements of today's social demand in increasing competitive global economy. Also the business and other organizations are finding range of competency learning is crucial to cope with the complex world reality. Human resource professionals are using competency as a tool to measure performance of employee. Competencies are the check-points at the time of recruitment and one of the essential part of training and development. Technical /functional competency is essential whether personally, socially or professionally but these are not sufficient to compete in the professional world where 'to be competent' is becoming essential for technical, managerial and entrepreneurial role. Various types of competencies such as managerial competency, leadership competency, entrepreneurial competency are grabbing interest of researchers, business organizations and government bodies to promote the entrepreneurship in the country. With the advent of technology, many functional /technical skills based jobs are declining while new jobs are emerging along with upgraded technical skills which also requires managerial, leadership or entrepreneurial competency. That's why the study of these competencies has become important.*

**Key Words:** Competency, Learning, Competency Framework.

### INTRODUCTION

Competency is a well known term in management and other disciplines, however, its importance as a tool to assess the performance and growth has been understood in the recent decades. To accomplish a job /task effectively and efficiently, a right alignment of knowledge, skills and attitude is expected that ability in a single and simple term may be termed as competency. So, competency is the aggregate of all these. It is also defined as the aggregate of experiences, knowledge, skills and attitude which one can acquire during life time for effective performance in a job. Practically, "competency is a broad concept. It is the transformation of knowledge, skills and attitude in the performance for a particular task successfully". It is competency that helps in distinguish the superior performers from other performers. It can be

a comparative tool to judge the ability of a person with other one. Although measuring competencies is a tough task, researchers have identified and defined various competencies such as Behavioral, Functional/Technical, Managerial, Leadership and Entrepreneurial Competencies and respective framework has been framed and studied over time. This paper is in alignment to gauge the literature on competency in a systematic manner.

### Understanding Competency

Understanding competency is not easy, it is a challenging task; one of the key challenges in the competence literature is that there are many definitions of competence (Hayton and Kelley 2006). Further, the terms "ability", "skills", "expertise", "acumen" are all interrelated and used interchangeably in the literature as well as in the common

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conversation (Smith and Morse, 2005). Hoskins and Craig Stated that “Competency is a complex combination of knowledge, skills, understanding, values, attitudes and desire which leads to effective human action in the world in a particular domain.”

White (1959) introduced motivation into the concept of competencies by building a hypothesis proving a relationship between cognitive competencies and motivational action. Of course, personal traits cannot be avoided while talking about competencies. Many authors find competencies are related to personal traits (Boyatzis, 1982; Barrick and Mount, 1991; McClelland, 1998; Klemp and Spencer, 1982; Spencer and Spencer, 1993). The concept of competency was defined further by Spencer and Spencer (1993) as underlying characteristics of an individual that results in superior performance in a job. It was also evaluated and concluded that “competencies are skills and abilities one can acquire through work experience, life experience, study or training.”

Competency remains a fuzzy concept (Boon and vander Klink, 2003). This fuzziness is linked to various faces, most notable fact is that the definition of a given competency is not universal (Hayton and Kelley 2006). Competence assessments are based on individuals, whereas the definition of the competence concept tries to include the context as well. As such, there can be considerable diversity in how a competence is defined depending upon who is being assessed, who is doing the assessing, and the context in which the competence is being applied (Luken 2004).

Over the past decades, many researchers have contributed to the literature on competencies with most of them highlighting the advantages of adopting competencies in organizations as a management tool. Understanding the competencies and using it as a tool is useful in understanding the gap between job

requirements and a person’s knowledge and capabilities

### **Defining Competency**

The word competency originates from the Latin word – ‘competentia’ which means “is authorized to judge” as well as “has the right to speak” (Coupin et al., 2006). English dictionary define the word ‘competence’ as “the state of being suitably sufficient or fit”. Competence as a concept has many faces and so has many applications, to define it is a challenging task with differences among authors and researchers. Different authors advocate different approaches to define competency. The term has a number of definitions depends on the specific task to be performed by individuals under different conditions. Depending on the profession of a person, it takes on different emphases (Ruth, 2006). For example, competency of a sales person would be different than the competency of a trainer; it will also be different for different managers working in different domains like Finance, Marketing, Operations, HR, etc. Similarly an entrepreneur would have unique set of competencies such as innovation, opportunity recognition and to act on it. Hoffman (1999) rightly suggested that competency shifts according to the context of its use and the requirement of job.

Competency may be defined as “being able to effectively use a complex combination of knowledge, skills and attitude to successfully react to a situation or solve the problem in the real world”. Dubois (1993) defined competency as the capability of applying/ using knowledge, skills, abilities, behaviors, and personal characteristics to successfully perform critical work tasks, specific functions, or operate in a given role/position. Thompson (2004) defined competency recognizes the importance of skills, knowledge and personal characteristics and the linkages between possessing competencies and performing certain role or

task. Boyatzis pointed that competencies may be a motive, trait skill, self image, social role or body of knowledge which a person uses.

Bartram (2005) defined it as sets of behaviors that are instrumental in the delivery of desired results or outcomes. Bartram et al. (2005), stated that competencies are sets of behaviors those are instrumental in the delivery of desired results or outcomes. Competencies conceptualized in such a way that people actually do and can be observed (Campbell et al., 1993). We can conclude that a competency is the capability of applying or using knowledge, skills, abilities, behaviors, and personal characteristics to successfully perform critical work tasks, specific functions, or operate in a given role or position.

## REVIEW OF LITERATURE

According to the resource-based theory of the firm, "the value creation process of firms is strictly related to the capability of managers in acquiring and developing resources (Grant, 1991; Barney, 1991). These capabilities, now - a - days of technology driven and competitive environment can be understood in terms of competencies. McClelland (1973) first time recognized a human trait that he called 'competence'. His research paper "Testing for competence rather than intelligence", grabbed the attention of scholars in the industrial psychology. McClelland's research focused on the fact that traditional academic performance, knowledge based tests, aptitude score were good predictors of academic performance, but they are not assurance of the better job performance. Boyatzis (1982) in his work developed a model of managerial competency; he studied over 2000 managers and identified hundred potential competencies. The outcome of his work was summarized in three levels of competencies as (1) – Motives and traits, (2)

– Social role and self concept and (3) - Role transitions.

Spencer and Spencer (1993) developed the job competence assessment method that grab the interest of various organization to shift their emphasis from traditional job description to develop a model based on competencies inculcating the main characteristics that is associated with better or competitive job performance. Burgoyne (1989) observed competencies as a functional and technical aspects and explain how firms (technical or manufacturing) can attain its goal by improving the performance (competency) in the best possible manner. Woodruffe (1993) suggested that competencies can be applied for effectiveness during performing a task or job and identified nine important competencies as demonstrated by successful managers. Ulrich (1995) performed his study among the HR professionals, he did a large scale survey in United States and observed specific competencies in HR professionals, He used these result to build benchmarking standards. Ulrich defined competence as the ability to add value to the business; competence must focus on the process leading from changing business conditions to achieve sustainable competitive advantage. Ulrich et al. (1995) model combines various aspects of competence into three primary elements: knowledge of the business, HR functional expertise and management of change.

Bird (1995) suggested about the competencies necessary to launch a new venture may be conceived as "baseline" and argued that highly effective entrepreneurs are those who successfully survive and grow. She further explained that competencies are learnable. McClelland (1998) stated competencies are fundamental behavior and can be acquired. Abraham et al. (2001) did an extensive survey of reputed US firms/ organizations and evaluated whether these

firms check for these competencies in assessing the performance of their managers or not. Also they found competencies are useful for successful managers. And it was demonstrated by successful managers compare to other below par. Pernick (2001) in his research work supported the statement that competencies can be identified from an organization's mission and values. With the study, he initiated the discussion and thoughts on organizational competency which was further studied by researchers.

Rothwell et al. (2004) addressed competency efforts in the USA training programmes which evaluated the outcomes of competency based performance. They stated that interests in competency-based approaches are growing. Training and development professionals are using competency models to improve human performance and unify individual capabilities with reference to organizational core competencies. Lucian and Cristina (2007) in their research work explained how competency is linked to performance and one's career development. They established model of competency mapping and appraisal tools for performance of employee management. The study reveals that a business firm might possess extremely capable human resources, but it might not work on the position that suits best. This is where competency mapping and the appraisal tools were framed and help the HR experts choose the right talent for the given position.

Forster, et al. (2013) in their work rigourously assessed managerial competencies among start-ups in Australia, and concluded that personal competencies specifically self-confidence and ambition are deemed more crucial in start-ups. In the views of Gaspar (2012), competency based selection method is healthy, structured and comprehensive. Candidates are evaluated on the competencies they need to demonstrate,

when inducted into the organization. Mitchelmore and Rowley (2010) defined new competencies, with particular focus on managerial and entrepreneurial competencies. In the last few years, researchers have focused more on studying, defining and measuring managerial, leadership and entrepreneurial competencies apart from the traditional competencies.

## **METHODOLOGY**

### **2.1 Literature survey and review**

Research literature surveyed using key words like "competency" and "competence" from reputed journals and similar sources. The structured database of research papers along with the reflection was prepared. Some of the relevant research papers were selected which were contributed to the competency literature.

### **2.2 Organize knowledge**

The reviewed knowledge was organized in a systematic manner to be understood by reader and budding researchers.

### **2.3 Develop framework**

With the help of organized knowledge an attempt has been made to develop a framework for better understanding of competency with relevant and recent competency framework.

## **OBJECTIVES**

- To examine and list the types/ factors/ dimensions of competency from existing literature.
- To develop a review framework on competency, with the aim of highlighting the need for study of competency before understanding the various types of competencies such as managerial competency, leadership competency, entrepreneurial competency, etc.

## Different Types of Competencies

**Technical/Functional/Professional Competencies:** These are job-specific competencies that drive proven high-performance, quality results. These are mainly based on skills of person in respective domain. "Operating a machine, software development, video editing, etc. In business it includes legal, finance, sales, IT, HRM, etc.

**Personal/ Behavioral Competency:** These include inter personal components – oral and written communication, ability to build and maintain relationships and intra personal components - anticipation, aptitude, comprehension, preferences, deliberations, stress tolerance, adaptability and team work.

**Management Competencies:** management competencies identify the specific attributes and capabilities that exhibits an individual's management potential. One can develop management characteristics with proper training and learning environment, experience and exposure to specific domain. Competencies in this category should demonstrate consistent behaviors for effective management.

**Organizational Competencies:** The mission, vision, values, culture and core competencies of the organization that sets the tone and/or context in which the work of the organization is carried out. For example the organizational competencies may be as customer-driven, risk taking, etc. It sees a bigger picture with a common goal and collective efforts.

**Core Competencies:** Core competencies differentiate an organization from its competition (e.g. the technologies, methodologies, strategies or processes of the organization that create competitive advantage in the marketplace). An organizational core competency is an

organization's strategic strength or its unique expertise. In an article (1990) titled "The Core Competence of the Corporation", C. K. Prahalad and Gary Hamel illustrate that core competencies lead to the development of core products which further can be used to build many products for end users. Core competencies are developed through the process of continuous improvements over the period of time rather than a single large change.

**Entrepreneurial Competencies:** Entrepreneurial competencies have been identified as a specific group of competencies relevant to the exercise of successful entrepreneurship. Such entrepreneurship is often associated with the development of small and new businesses (Colombo and Grilli, 2005; Nuthall, 2006). Bird (1995) suggested that entrepreneurial competencies are defined as underlying Characteristics such as specific knowledge, motives, traits, self images, social roles and skills which result in venture birth, survival and/or growth. Man et al. (2002) defined entrepreneurial competencies as the total ability of the entrepreneur to perform a job role successfully.

**Difference between Managerial and Entrepreneurial Competencies:** Scholars researching in the field of entrepreneurship distinguish between managerial competencies and entrepreneurial competencies (Lerner and Almor, 2002; Chandler and Hanks, 1994a, b, c). Some suggest that entrepreneurial competencies are needed to start a business, while managerial skills are needed to grow the business, although competence in entrepreneurship requires competencies in both areas (Man et al., 2002).

**Levels in Competencies:** Many authors / researchers including Boyatzis and Winterton (2005) agreed and suggested that competencies are context specific. Some competencies are more crucial/essential than

other for a given job in a given time and environment. Accordingly, there have been varied levels of skills or ability involved in a competency framework. According to Dreyfus and Dreyfus (1980), there are

various levels of competence – Novice, beginner, knowledgeable practitioner, expert, and virtuoso, experienced, practitioner and maestro. Some of the levels of competencies identified by different authors over time is summarized below:

Author	Year	Classification and category of competencies
Thomas & Sireno	1980	Control, Leadership and communication competencies
Boyatzis	1982	Leadership & HRM Competencies
Jacobs	1989	Hard and Soft Competency
Spencer and Spencer	1993	Threshold Competency and differentiating Competency
Hunt and Wallace	1997	Strategic management, Administrative, problem solving, decision making , networking and political Competencies
Abraham et al	2001	Result focused, leadership, customer oriented, team worker, quality oriented, communication and inter personal.
Roothwell	2002	Functional and intermediate Competencies
Schyms, Kuijpers, Scheerens	2006	Functional , Learning and career Competencies

Competency theory is based on studying successful leaders, breaking down their behaviors, attitudes and skills into measurable aspects, and looking for ways of bringing them together in order to create individuals who demonstrate superior performance. Skills necessary for successful entrepreneurship may include, for example, oral presentation skills, interpersonal skills, and the ability to prepare and present a business plan (Ronstadt, 1988; Vesper and McMullan, 1988).

### Competency Framework:

There are large numbers of researchers and organizations who have emphasized and developed competency framework. Notable among researchers are Tucker and Cofsky, 1994. They have given five major components of competency which are Knowledge, Skills, Traits, Self concepts / Values and Motives. Tucker and Cofsky (1994), developed a framework based on

literature review and identified five major components of competency: Knowledge-information and learning; Skill- A person's ability to perform certain task; Self Concepts and Values- A person's attitudes, values and self image; Traits- Physical characteristics and consistent responses to situations and Motives- Emotions, desires, physiological needs or similar impulses that prompt an action.

Katz and Kahn (1986) grouped competency into four clusters. Technical or Functional Competency (knowledge, attitudes, skills, etc. associated with the methodology, technological knowhow or functional expertise required to perform the role); Managerial Competency (to plan, organize, mobilize and utilize various resources); Human Competency (to motivate, utilize and train human resources); and Conceptual Competency (abilities to visualize the invisible, think at abstract levels and use the thinking to plan future business).

Carrol and McCracken (1988) organized competencies into three main categories:

Hoffmann (1999) summarized three key points in defining a competency- (a) Underlying qualification and attributes of a person. (b) Observable behavior and (c) Standard of individual performance outcomes.

**1) Core competencies:** A core competency indicates the strategic direction; it is something which differentiates a company compare to competitors. For example the core competency of a company may be “Quality orientation”.

**2) Leadership / Managerial competencies:** This category involves competencies that are related to leading an organization and people. Some examples include “visionary leadership”, “strategic thinking”, and “developing people”.

**3) Functional competencies:** These are job-specific competencies required to perform a particular job role or profession. (Ozcelik and Ferman, 2006:75).

**International Competency Frameworks:** The concept and purpose of international competency framework was introduced for teaching school /college students. These are not confined to a specific role or profession it includes the competencies about life skills, living in the world, way of thinking. Now it is widely gaining acceptance in business and organization for training and development of employees. A large number of international organizations have researched and framed on it. Notable among these are UNESCO Framework, ATC – 21 Century Framework. The main competency frameworks are popular in this domain on a widely acceptable international scenario are: European Union’s Recommendation on key competencies for lifelong learning, UNESCO Framework, OECD DESECO Framework, Partnerships 21 Framework and ATC 21 century framework.

Some of the import framework has been introduced below

**European Union’s Recommendation on key competencies for lifelong learning:** European Union defined key competences as the sum of skills needed to live in a contemporary knowledge society. In their recommendation on key competences for lifelong learning (2006), the European Parliament and the Council set out eight key competences: Communication competencies in mother tongue; Communication competencies in foreign languages; Competences in Aptitude, Numerical ability and science, Digital competence and awareness about technology, Continuous Learning ; Interpersonal, intercultural and social competences, Entrepreneurship / Entrepreneurial quotient and motivation and Cultural expression.

The recommendation of the European Parliament and the Council also stated that the key competences are all considered equally important, because each of them can contribute to a successful life in a knowledge society. Many of the competences overlap and interlock: aspects essential to one domain will support competence in another. Competence in the fundamental basic skills of language, literacy, numeracy and in information and communication technologies (ICT) is an essential foundation for learning, and learning to learn supports all learning activities. Critical thinking, creativity, initiative, problem solving, risk assessment, decision taking, and constructive management of feelings play a role in all eight key competences. (Source: European Parliament 2006).

### **The OECD Competency Framework**

The core competencies summarize the capabilities that are important across all jobs and collectively contribute to the OECD’s overall success. At the same time, the



importance of core competencies may vary according to the specific job duties and requirements. The OECD Competency Framework displays fifteen Core Competencies grouped into three clusters: The delivery-related competencies, The interpersonal competencies and The strategic competencies.

The OECD Competency Framework displays fifteen Core Competencies grouped into three clusters.

- The first cluster groups the delivery-related competencies
- The second cluster groups interpersonal competencies
- The third cluster relates to strategic competencies



## IMPLICATIONS

The outcome of this research as a framework for literature highlights the current journey of Competency. This framework is useful to practitioners and academicians for their research on competency or any specific competency such as managerial or entrepreneurial competency. An extensive search of previous research on competency from reputed journals led to create a framework for literature on competencies. The study took all dimensions of the competency from academic and management perspective, levels in competency, type of competencies,

international frameworks on competency etc. This methodical framework will help to know the research gaps in this domain and assist in formulating research questions. This framework contributes to accelerate the academicians and practitioners anchoring towards the desired direction in their research from each perspective in any country, profession, and role or on organizations.

This framework helps managers to create awareness regarding managerial intervention in using competency-based HR practices. This study promotes competency to be applied in better selection, employee



training and development, leadership development, assessment etc. It also introduces entrepreneurial competencies as a field of research in the recent years. The study can be a good starting point for the future researcher or practitioner in the field of entrepreneurial competencies.

## LIMITATIONS

Limitation of the current review is that only journals in the fields of HR, organizational development and management have been considered while limiting other subject journals. In addition, only top peer-reviewed papers and critically acclaimed books were considered, the study was limited to English. It also describes only theoretical part of competency study and doesn't discuss empirical measurement of competencies.

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## A SEASONED MANAGER: EFFECT OF SPIRITUAL INTELLIGENCE AND TENURE ON MANAGER'S EFFECTIVENESS

**Mayura Kemkar\*, Jyoti Sharma\*\***

*Human capital is the biggest and the most prized capital of any organization. Business's run by the virtue of competent employees. Many a times it is seen that managers with high degrees and qualification from some of the most reputed institutions of India and worldwide, fail to deliver on their key result areas (KRA's) in the work front. This leads us to think that maybe there is something else, other than intelligence and degrees alone, that forms the basic building block for success. The aim of this paper is to understand the concepts of Spiritual Quotient and try to find out their relationship with Managerial Effectiveness and total working experience of a professional. The study focuses on managers from service sector industries from Madhya Pradesh (M.P).*

**Keywords:** *Spiritual Quotient, Managerial Effectiveness, Work Experience.*

### INTRODUCTION

In this continuously changing world where nothing is fixed or constant, business's too facing a very challenging environment. There is a constant quest for improving their processes and practices. Managers play a very important role in implementing the policies and practices of the companies. In this endeavor there is a need to improve the effectiveness of the practicing managers. For so long traditional intelligence had been the only criteria for assessing the manager. But time and again, it has been observed that only intelligence quotient cannot predict or control the effectiveness of a manager.

Another variable which impacts the effectiveness of a manager is the total number of years of experience a manager has acquired. This paper looks at Spiritual Quotient and tries to find out, if there exists, a relationship with Managerial Effectiveness. The paper also aims to find out if there exists any relationship between Total Experience and Managerial Effectiveness. Spiritual Quotient (SQ) - Spiritual Quotient is the feeling of being connected with ones inner

self. Spiritual Quotient is over and above the cognitive and emotional skills of a person. A good understanding of SQ motivates people to balance their work requirements, spend required time with family and work towards inner growth and mental peace. Managerial Effectiveness is the ability of a leader to get required results for the organization. It includes efficient realization of company's strategies with optimum utilization of available resources.

### REVIEW OF LITERATURE

Ramachandaran et al. (2017) have tried to explore the impact of integrating spiritual intelligence with leadership practices. In this paper the authors have tried to create a clear understanding of the implementation of spiritual intelligence practices in developing the leadership skills. The research mainly focuses on women leaders and tries to explain the use of spiritual quotient in improving the leadership skills of women leaders, so as to help the women professionals in gaining higher positions in the academic world. Moses (2003) has worked on the concept of intelligent

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spirituality. The author has defined intelligent spirituality as practical, people centered and emotionally fulfilling, which is at the same time profoundly rooted. The author has tried to answer a question which has become increasingly important and most talked about these days. The question being, in today's business scenario how can and to what level can spirituality play a positive role in defining and improving leadership behavior.

Jena and Pradhan (2018) have tried to explain the concepts of workplace spirituality (WS) and employee organization commitment (EC). The commitment which an employee has towards the organization is effected by the spirituality that pervades in the organization. The author has explored how the spirituality affects the results of citizenship behavior of the employees. The researcher has included emotional intelligence (EI) as a moderating variable to the test the relationship amongst various variables. Rosenthal and Buchholz (2003) have worked on the topic of spirituality in business which has become an area of increased importance. The author talks of spirituality in a unique way in which they say that spirituality is something which is very different from religious beliefs. The authors have further defines spirituality as one's view of what is right and what is wrong, ultimately leading to one's way of living in this world.

Jonathan and Andrew (2010) have put forth the idea that an all encompassing approach is required by the managers to deal with the day to day tensions and workings of the organization. The authors have considered the mental, physical and spiritual dimensions for defining the effectiveness of the managers. The authors have found that out of these three dimensions the spiritual dimension is the most difficult to understand and incorporate and thus becomes the most avoided one. The researchers have given a

model and explained the use of this model in dealing with the daily situations that the managers have to face. The researchers have highlighted the fact that the spiritual dimension needs to be included in the manager's interpersonal activities.

Gilbert (1996) presented a model for explaining leadership which is based on spiritual realization that our own work brings to each one of us. In current business scenario, where people are spending maximum part of their daily lives at workplace, the work itself has become a source of our emotional and social fulfillment.

Nada et al. (2002) have explored the link between spirituality and present-day managerial practices. The author has reviewed the old world meaning of spirituality being deeply based in religion and explains that there are various new meanings of spirituality which can be of immense importance to the present day manager and that the organization as a whole can benefit from this new concept of spirituality.

Chakraborty and Chakraborty (2004) have explored the concepts of spirituality and also provided some practical examples for defining spirituality. They have further elaborated their concepts to discuss about the impact of spirituality on leadership. The authors have based their research work on the Yoga Vedanta model of spirituality. The researchers have incorporated relevant data from western ideology as well as Indian thinking. The paper investigates a huge horizon for the leadership impacted by spirituality. The authors conclude by stating that transformation of leaders leads to the transformation of followers and its effect goes ahead of plain business success. Kale and Shrivastava, (2003) said that the concept of spirituality at workplace is garnering a lot of attention in the world of management practitioner and academic arenas as well. The authors have put forth the fact that a

workplace which is more spiritual in nature turns out to be not only a more pleasant place to work but also is a more profitable organization. Companies are now trying to find out ways to provide spiritual literacy to their employees.

## OBJECTIVES

As the service sector is growing in India, it is imperative for the service sector companies to focus on factors that might be having an impact on the effectiveness of their managers. The aim of the study is to examine the following:

- To find out the relationship between Total Working Experience and Managerial Effectiveness.
- To find out the relationship between Spiritual Quotient (SQ) and Managerial Effectiveness.

## METHODOLOGY

**The Study:** The study is descriptive in nature. For this study following scales were used. For measuring Spiritual Quotient- Roqan Spiritual Intelligence Test By- Prof. Roquiya Zainuddin and Ms. Anjum Anand. For measuring Managerial Effectiveness - Managerial Effectiveness Scale by Upinder Dhar, Santosh Dhar, Preeti Jain.

**Tools for Data Collection:** Primary data was collected by administering the structured questionnaire to the respondents. The questionnaire included statements which the respondents had to rate on the basis of likert scale having responses ranging from 1 to 5.

**The Sample:** The questionnaire was administered to 200 managers. A total number of 186 responses were found to be complete and therefore were used for this study. Effort was made to cover various service sector industries including Hospitality, Education, Health Care, ITES, Banking and Insurance etc.

**Tools for Data Collection:** Correlation analysis is used to analyze the collected data.

## Hypothesis Formulation

Two hypotheses were framed to examine the relation between Spiritual Quotient and Managerial Effectiveness and Total Working Experience and Managerial Effectiveness of the managers in service sectors.

The hypotheses framed for the objective achievement are as follows:

1. There is a significant relationship between Spiritual Quotient and Managerial Effectiveness of the managers in service sectors.
2. There is a significant relationship between Total Working Experience and Managerial Effectiveness of the managers in service sectors.

## RESULTS AND INTERPRETATION

**Hypothesis 1:** There is a significant relationship between Spiritual Quotient and Managerial Effectiveness of the managers in service sectors.

The value of  $r = +.523$  which is  $> 0$ , therefore, the given hypothesis is accepted.

As the value of  $r$  is  $+ .523$ , which means there is a medium positive relation between Spiritual Quotient and Managerial Effectiveness of the managers in service sectors.

**Hypothesis 2:** There is a significant relationship between Total Working Experience and Managerial Effectiveness of the managers in service sectors.

The value of  $r = +.628$  which is  $> 0$ , therefore, the given hypothesis is accepted. As the value of  $r$  is  $+ .628$ , which means there is a strong positive relation between Total Working Experience and Managerial Effectiveness of the managers in service sectors.

## Managerial Implications

Result and findings suggests that Spiritual Quotient and Total tenure does have significant relationship with the effectiveness of a manager. For organizations wanting to improve their managers in all spheres, spiritual intelligence is the construct to be focused upon. By designing special programs for development of spiritual intelligence of the employees, the companies will be able to increase the effectiveness of their managers.

## Scope for Future Studies

This paper provides a gateway for further research related to the areas of managerial effectiveness. One can identify and incorporate more variables that can be affecting the construct of effectiveness. Moreover this study focuses on middle level managers only. In future studies can be taken up covering the whole hierarchy of managers starting from the Junior level managers and moving up to middle level and then reaching up to the Senior level.

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ANNEXURES

**Table 1: Correlation Coefficient: r values**

		<b>Correlations</b>	
		METotal	SQTotal
METotal	Pearson Correlation	1	.523
	Sig. (2-tailed)		.000
	N	186	186
SQTotal	Pearson Correlation	.523	1
	Sig. (2-tailed)	.000	
	N	186	186

**Table 2: Correlation Coefficient: r values**

		<b>Correlations</b>	
		TotalExp	METotal
TotalExp	Pearson Correlation	1	.628
	Sig. (2-tailed)		.000
	N	186	186
METotal	Pearson Correlation	.628	1
	Sig. (2-tailed)	.000	
	N	186	186

## A STUDY OF EMPLOYMENT PATTERN AMONG EDUCATED YOUTH: INFLUENCE OF THEIR SOCIO-ECONOMIC CHARACTERISTICS

Surbhi Gangrade\*, Kanhaiya Ahuja\*\*

*A nation's future rests on its youth. The buzzword that India's burgeoning youth is the world's future will hold true only if we are able to reap out the benefits of existing demographic dividend. Thus, the development of this enormous young brigade is of mounting concern for researchers and policy makers. This development is strongly affected by the socio-economic indicators, therefore its measurement has been receiving considerable attention. This paper provides vital insights into the socio-economic characteristics of educated youth of Indore district. Three tehsils were selected namely Indore, Mhow and Depalpur. Total of 400 educated youth falling in the age group of 22-35 years were interviewed. Mean age of respondents was found to be 29.21 years. Structural shift in employment at macro level was seen in the district with majority (59 percent) of youth employed in tertiary sector. However the educational attainment of a higher number of educated youth (39.75 percent) was found to be confined only upto graduation. The earnings of the 53.25 percent of educated youth fell in the lower income brackets. Findings revealed a positive social change as gender biasedness was found to be at minimum at district level.*

**Key Words:** Demographic Dividend, Socio-economic Indicators, Employment Pattern, Educated Youth.

### INTRODUCTION

The world is eyeing India as a powerhouse of young population. The United Nations in 2003 predicted that India will become the fourth largest economy by 2025 and would contribute around six percent to the world's GDP. The seventh decade of independent India is witnessing new era of opportunities wherein India is enjoying its demographic dividend. Arif and Choudhary (2008) explained the characteristics of this dividend wherein the youth share in the total population increases, further leading to an increment in young adult working age group. Roy and Roy (2014) opined that a rising share of the working age population may result in the rise of economic growth rate.

Youth has been defined in numerous ways. The definition changes due to various factors like financial, demographic, socio-economic and cultural circumstances. According to the

United Nations- youth has been defined as those persons between the ages of 15 and 24 years. The National Youth Policy 2014 considered youth to be of the ages between 15-29 years. According to this age bracket, youth comprises 27.5 percent of the population in India. The development trajectory of the country has strengthened over the years but there still remain many lacunas and challenges especially in the areas concerning youth. Development of the young population is a multifaceted prodigy and with its levels being highly uneven, the benefits of economic development remain unreaped. Unemployment is a chronic problem and its rates are mounting in India. Creating more opportunities for employment of youth is the need of the hour (World Bank Report, 2007).

Youth challenge is said to be the most critical challenge of the 21<sup>st</sup> century (Dev and Venkatanarayana, 2011). Major lag is in utilizing these power resources. If adequate

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employment and that too of a captivating nature is not generated, then the window of demographic dividend could not be a dividend but mayhem (Verick, 2009). Thus, harnessing this potential of the young brigade is necessary and it requires that they should be provided with a strong foundation. There are multitudes of determinants which govern their development from the root level and hence needed to be studied. They are covered under socioeconomic status. It is an umbrella term used by researchers, social scientists, sociologists and economists etc in order to describe social and economic standing of an individual or group. The association between socioeconomic status and an individual's development is long established and well researched. It is measured by a number of factors, like income, occupation, age, gender and education and it can have either a positive or negative impact on a person's life. They have a huge impact on educational achievement which further foretells the level of performance of individual in the labor market.

Socio economic environment has immense impact on educational attainment of individuals. Family variables not only affect academic achievement of junior school students (Khanna, 1980), but also have a significantly positive effect on the students of specific educational disciplines like arts, commerce and higher secondary level. Students of higher Social Economic Segment (SES) achieved higher academically (Sharma, 1982). It was shown that higher the SES, better are the educational facilities available. SES also influences a student's interest, motivation, attitude and needs which fosters their academic accomplishment (Deka, 1993). Educational attainment is also affected by race/ethnicity, household income, level of parent's education and location (College Board, 2004) whereas gender disparity was found to have negative impact on the same (Singh, 2008).

Although youth belonging to 16-24 years are more prone towards the negative effects of global slowdown, which creates a spell of unemployment (Bell and Blanchflower, 2010), the factors that positively influence youth development in India are wealth index, standard of living, gender and father's education. Youth belonging to poorest households are more unemployed as compared to those from rich households (Malik, 2015). Dissatisfaction in context of wages received is also a major reason of joblessness found among the youth in Japan. The unemployed segment of youth might be reluctant in taking up low wage jobs as it did not match their high standard of living. A larger chunk of employed youth has had to accept low salaried temporary employment as availability of regular full time employment has shrunk over the time (Shinozaki, 2012).

Meaning of education lies incomplete without an individual being successfully employed. Dunga and Sekatane (2014) found that age, marital status, educational level, household labor force and government grants effect employment status of an individual significantly while gender of head of the household and age did not have significant effect on probability of being employed. Poverty has a negative impact on the youth's employment status as those employed were more likely to escape poverty.

Caste and kin is a central element of Indian fraternity. Indian society cannot be shaped without the existence of its caste structure and its deep rooted impact on an individuals' life. There is an unending endurance of caste disparities in income, education and social matrix in India. Caste has a close impact on access to education, employment and other services in the Indian society. Children from lower castes are found to be deprived of education and employment opportunities (Desai and Dubey, 2011).

## OBJECTIVES

The broad objective of this research paper was to analyse how various socio-economic indicators influence the employment structure of educated youth in Indore district. The specific objectives were:

- To examine the socio-economic characteristics of educated youth in the study area.
- To assess how the employment pattern of educated youth gets influenced by their socio-economic characteristics in the district.

## METHODOLOGY

Indore being the economic capital and the emerging education hub of central India was selected for the purpose of the present study. The study focused on socioeconomic indicators of educated youth of the study area. Emphasis is laid on assessing the association between socioeconomic determinants and employment pattern of educated youth. The sampling design of the study was based on the multi stage stratified sampling. Indore district being the education and employment hub of central India was selected for the study. Further, three tehsils namely Indore, Mhow and Depalpur having varied characteristics were chosen. Those individuals belonging to the age group of 22-35 years and having attained education of at least graduate level or above (including diploma, vocational, other professional courses, if any) were interviewed. The total sample comprised of 400 educated youth that were selected randomly. 200 of them hailed from Indore tehsil and 100 were selected from Mhow and Depalpur each. Primary data was collected through a specially designed questionnaire. A large quantum of necessary literature for secondary data was also collected through study of journals, local publications, newspapers, websites, survey reports, research papers related to youth

employment. Many statistical tools and techniques are applied, wherever applicable, to meet the objective of the study.

## SOCIO ECONOMIC PROFILE

### Data Analysis and Results

Table 1 presents a synoptic description of findings with respect to socio economic determinants in the three tehsils selected for the study. Key determinants like education level, income, age, gender, family structure, religion, caste, marital status and family structure of the youth aged between 22-35 years were explored.

As per the findings, the trend in the age structure of educated youth in the study area witnesses the prevalence of demographic dividend where dominance of educated youth belonging to age group of 31-35 years was seen, with highest proportion of them in Mhow which signifies its emergence a preferred hub. Gender wise statistics showed that the sample is male dominated (56.25 percent males as against 43.75 percent females). On the contrary, findings signify a welcome change in social perception of residents of Depalpur where equal proportion of educated males and females was found. Level of educational attainment was found to be at a strikingly low levels and mere graduation was found to be the mainstream of majority (39.75 percent) of youth in the district. Among the tehsils, Mhow was found to be educationally ahead of rest of the two tehsils which indicates rising levels of educational attainment in Mhow. Its proximity from Indore might have been a boon for its youth as they have easy access to good educational institutes of the city. On the parallel lines, income level of more than 50 percent of educated youth was in the lower range (below Rs. 30,000).

The sample consists of larger proportion of married educated youth (61.75 percent) with maximum of them in Mhow and Depalpur.

It can clearly be inferred that the common perception of early marriage still prevails in rural areas whereas, in the urban zone of the district (Indore tehsil), highest number of bachelor educated youth were found (45 percent) as they are more inclined towards settling down their lives on other important fronts like educational and professional before taking up the responsibilities of married life. On analysing the family structure of educated youth, the results were found to be in line with the current societal trend where more than half of urban as well as rural population were found to live in nuclear families in all the three tehsils though proportion of nuclear structure was more in Indore (72.00 percent). Structural shifts in the pattern of employment at the macro level of economy were also witnessed among the youth in the tehsils. Service sector was found to be the major employer followed by self employment. Youth were majorly found to belong to Hindu community with a dominance of general category.

**Employment Pattern among Educated Youth: An assessment of their Socio-economic Characteristics**

Further, the association between socio economic characteristics and the pattern of employment of educated youth was analysed. Factors like level of educational attainment, primary monthly income, gender, age, marital status and family structure were considered. Chi-Square Test of Independence was applied in order to test the findings statistically.

### **Level of education**

The table (Table: 2) presents the employment pattern of educated employed youth with respect to their education levels. Chi-Square Test of Independence has been applied to test the following hypothesis-

$H_{01}$ : Employment pattern of educated youth is independent from their level of education.

The result was found to be significant at 5% level of significance. Employment pattern of educated youth was found to be dependent on their level of education. Therefore, null hypothesis ( $H_{01}$ ) is rejected. It can thus be inferred that education is a key ingredient in all the variants of employment sectors. It might be because employers in the service sector are more skill oriented and they demand qualified youth, therefore more educated youth are absorbed in this sector. Nowadays, government is taking special efforts to promote self employment and agricultural sectors. Educated youth have higher probability of exploring new avenues and to become self-employed and participate in employment generation.

### **Primary Income and Employment Pattern**

The table (Table: 3) presents the employment pattern of educated employed youth with respect to their income levels. In order to test these findings statistically, Chi-Square Test of Independence has been applied.

$H_{02}$ : Employment pattern of educated youth is not influenced by their income levels.

A striking finding revealed that around 77.70 percent of educated youth in the district were found to earn low levels of income (upto Rs. 30,000). Out of the whole sample, only 8 percent of the youth were found to earn more than Rs. 50000. The result of Chi-Square test was found to be significant at five percent level of significance implying that employment pattern of educated youth is associated with level of income. In other words, the income levels of the respondents are influencing the employment pattern of the educated youth of this region.

Moreover, only eight percent youth were employed in the higher income range of more than Rs. 50,000, out of which youth were almost equally distributed in the service sector and self-employment. Agricultural sector included agricultural entrepreneurs as

well as labourers/ daily wagers. The figures in the table clearly depict the current condition of agricultural individuals. They have very low income levels and thus strive out of poverty.

### **Gender**

The table (Table: 4) presents the employment pattern of educated employed youth with respect to their gender. In order to test these findings statistically, Chi-Square Test of Independence has been applied.

$H_{03}$ : Employment pattern of educated youth is independent of gender.

The sample is male dominated with 57.8 percent males as against 42.2 percent females; the findings reveal that on one side male dominance exists in all the variants of employment sectors whereas on the other side, none of the educated female took agricultural sector as their preferred option of employment. Result of Chi-Square Test of Independence was found to be significant at five percent level of significance showing that employment pattern differs with respects to gender of educated youth in the district.

### **Age**

The table (Table: 5) presents the employment pattern of educated employed youth with respect to their age. In order to test these findings statistically, Chi-Square Test of Independence has been applied.

$H_{04}$ : Employment pattern of educated youth is independent of their age.

Chi-Square test was found to be significant at five percent level of significance inferring that employment pattern of educated youth is associated with their level of income. Thus, it can be inferred that service sector being the major contributor to GDP of country and also the most attractive sector of employment, educated youth in their tender age of 25 years prefer to join this sector. Availability of

lucrative opportunities in this sector is might be another reason for youngsters to step into this sector. While in the later stages, when youth acquires knowledge, experience, financial empowerment and maturity, they tend to be their own bosses and thus become self employed.

### **Marital Status**

The table (Table: 6) presents the employment pattern of educated employed youth with respect to their marital status. In order to test these findings statistically, Chi-Square Test of Independence has been applied.

$H_{05}$ : Employment pattern of educated youth is independent of their marital status.

Sectoral analysis of marital status reveals that there is a dominance of married youth in each of the employment sector. Overall, 61.8 percent of youth in the sample were found to be married. Result of Chi-square test was found to be significant at five percent level of significant inferring that employment pattern of educated youth is associated with their marital status.

### **Family Structure:**

The table (Table: 7) presents the employment pattern of educated employed youth with respect to their family structure. In order to test these findings statistically, Chi-Square Test of Independence has been applied.

$H_{06}$ : Employment pattern of educated youth is independent of their family structure.

The table shows the distribution of employment pattern on the basis of family structure. Overall, trend of nuclear family was prevalent in the district with 65.8 percent families. An interesting finding showed that majority of youth employed in service sector belonged to nuclear family concept whereas, maximum proportion of those self employed belonged to joint families. Chi-Square Test of Independence result was found to be significant at five percent level of significance.

Employment pattern of educated youth is associated with family structure.

## **CONCLUSION**

The term “Demographic Dividend” is a highly famed subject today. Fortunately India is also an epitome for the same. Youth is a diversified category of individuals and are critical for continued demographic and economic evolution in the country. The preliminary pillars behind each young individual’s development are the socio economic indicators which help in assessing their social and economic standing. The study tried to analyze these determinants for the educated youth of Indore district. Chi-square test of independence was applied to test the association between determinants and the employment pattern of educated youth. Determinants like educational level, income, age, gender, marital status, family structure were found to be associated with employment pattern and found to influence the same.

The findings reveal a poor picture of level of educational attainment in the district as majority of youth confined their educational levels only up to attaining graduation. This may be due to the fact that the young brigade carries a perception of attaining greater value addition if they move on to the metros. Comparatively, Mhow tehsil was seen to be emerging as a nerve centre of educated youth. It may be because it has an added advantage of its proximity with Indore which facilitates its youth to be benefited by good educational institutes. Rural education has marked its presence on a positive note and a welcome change in the outlook of society with respect to female education clearly emerged especially in Mhow and Depalpur.

Gender biasedness was at its minimum which indicates improvement in the social perception of society towards female

education and employment. A significant social change is observed in Depalpur tehsil where the female educated youth were found to be in equal proportion to the male educated youth. Service (tertiary) sector emerged as a major employment provider for the youth of Indore district followed by segment of youth who are self employed. It clearly entails the structural shift away from agriculture with rise in levels of education and employment opportunities. Since the study concentrated on educated youth only, thus it can be inferred that they preferred more of white collared jobs than blue collared.

Education gives intrinsic value to an individual whereas income gives face value to him in the society. The outcome shows an unexpected income pattern revealing a low economic achievement of educated youth in Indore district. Income range fell lower somewhere between Rs. 10000-30000 for majority of educated youth. It clearly points towards the fact that although district presented a sound employment status with very few youth currently unemployed but the youth are underemployed and are working in low level jobs. Therefore, it is the need of the hour that education system is reframed with major focus on producing skilled educated youth. Government of India and the educational bodies together should team up in realising the goals of “Skilled India”.

Mean age of respondents was found to be 29.21 years and the most dominant age group was that between 31-35 years thus presenting the window of opportunity. As far as type of family structures are concerned, it can be concluded from the findings that urbanization, changes in job structure, migration for better education and job opportunities etc have changed the old joint family structures into nuclear ones.

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## ANNEXURES

Table 1: Descriptive Statistics

Variable	Category (%)	Indore (%)	Mhow (%)	Depalpur (%)
Age	22-25	23.00	3.00	24.00
	25-28	27.50	27.00	24.00
	28-31	16.5	33.00	26.00
	31-35	33.0	37.00	26.00
Gender	Male	57	61	50
	Female	43	39	50
Religion	Hindu	94.00	87.00	94.00
	Muslim	3.50	2.00	4.00
	Sikh	0.50	1.00	0.00
	Christian	1.00	0.00	2.00
	Other	1.00	10.00	0.00
Caste	General	83.50	85.00	76.00
	Scheduled caste	1.50	8.00	2.00
	Scheduled tribe	1.00	0.00	1.00
	Other backward classes	14.00	7.00	21.00
Educational qualification	Only graduate	38.50	30.00	52.00
	Postgraduate	37.50	44.00	25.00
	Professional	4.50	9.00	2.00
	Diploma	19.50	17.00	21.00
Marital status	Single	45.00	26.00	33.00
	Married	54.50	74.00	64.00
	Separated (divorced/widowed)	0.50	0.00	3.00
Family Structure	Nuclear	72.00	51.00	66.00
	Joint	28.00	49.00	34.00
Income status	Upto 10000	14.00	11.00	41.00
	10000-30000	51.00	66.00	45.00
	30000-50000	17.50	16.00	3.00
	50000-70000	5.50	2.00	2.00
	70000-100000	3.50	1.00	3.00
	More than 100000	0.50	1.00	2.00

Table 2: Association between the level of Education and Employment Pattern

Level of education	Employment Pattern			Total	$\chi^2$ Test of Independence
	Service	Self Employed	Agriculture		
Only Graduate	116 (46.6%)	72 (65.5%)	17 (94.4%)	205 (54.4%)	$\chi^2 = 23.213^a$ df= 4 P value= 0.000 H0 is rejected Significant at $\alpha = 5\%$
Post Graduate	118 (47.4%)	34 (30.9%)	1 (5.6%)	153 (40.6%)	
Professional	15 (6.0%)	4 (3.6%)	0 (0.0%)	19 (5.0%)	
Total	249 (100.0%)	110 (100.0%)	18 (100.0%)	377 (100.0%)	

**Table 3: Association between the level of Income and Employment Pattern**

Primary monthly income	Employment Pattern				$\chi^2$ Test of Independence $\chi^2 = 20.239^a$ df=6 P value= 0.003  H0 is rejected Significant at $\alpha = 5\%$
	Service	Self Employed	Agriculture	Total	
<10000	60 (24.1%)	13 (11.8%)	7 (38.9%)	80 (21.2%)	
10000-30000	138 (55.4%)	64 (58.2%)	11 (61.1%)	213 (56.5%)	
30000-50000	37 (14.9%)	17 (15.5%)	0 (0.00%)	54 (14.3%)	
>50000	14 (5.6%)	16 (14.5%)	0 (0.00%)	30 (8.0%)	
Total	249 (100%)	110 (100%)	18 (100%)	377 (100%)	

**Table 4: Association between Gender and Employment Pattern**

Gender	Employment Pattern				$\chi^2$ Test of Independence $\chi^2 = 19.961^a$ df= 2 P value= 0.000 H0 is rejected Significant at $\alpha = 5\%$
	Service	Self Employed	Agriculture	Total	
Male	128 (51.4%)	72 (65.5%)	18 (100.00%)	218 (57.8%)	
Female	121 (48.6%)	38 (34.5%)	0 (0.00%)	159 (42.2%)	
Total	249 (100%)	110 (100%)	18 (100%)	377 (100%)	

**Table 5: Association between Age and Employment Pattern**

Age of Educated Youth (in Years)	Employment Pattern				$\chi^2$ Test of Independence $\chi^2 = 24.807^a$ df= 6 P value= 0.000  H0 is rejected Significant at $\alpha = 5\%$
	Service	Self Employed	Agriculture	Total	
22-25	52 (20.9%)	15 (13.6)	3 (16.7%)	70 (18.6%)	
25-28	76 (30.5%)	20 (18.2%)	3 (16.7%)	99 (26.3%)	
28-31	58 (23.3%)	20 (18.2%)	7 (38.9%)	85 (22.5%)	
31-35	63 (25.3%)	55 (50.0%)	5 (27.8%)	123 (32.6%)	
Total	249 (100%)	110 (100%)	18 (100%)	377 (100%)	



**Table 6: Association between Marital Status and Employment Pattern**

Marital status	Employment Pattern			Total	$\chi^2$ Test of Independence
	Service (public/private)	Self employed	Agriculture		
Single	110 (44.2%)	27 (24.5%)	3 (16.7%)	140 (37.1%)	$\chi^2 = 20.833^a$ df= 4 P value= 0.000 H0 is rejected Significant at $\alpha = 5\%$
Married	136 (54.6%)	83 (75.5%)	14 (77.8%)	233 (61.8%)	
Separated (divorced/widowed)	3 (1.2%)	0 (0.0%)	1 (5.6%)	4 (1.1%)	
Total	249 (100.0%)	110 (100.0%)	18 (100.0%)	377 (100.0%)	

**Table 7: Association between Family Structure and Employment Pattern**

Family structure	Employment Pattern			Total	$\chi^2$ Test of Independence
	Service (public/private)	Self employed	Agriculture		
Nuclear	190 76.3%	52 47.3%	6 33.3%	248 65.8%	$\chi^2 = 37.412^a$ df= 2 P value=0.000 H0 is rejected Significant at $\alpha = 5\%$
Joint	59 23.7%	58 52.7%	12 66.7%	129 34.2%	
Total	249 100.0%	110 100.0%	18 100.0%	377 100.0%	

## A STUDY ON CAUSES OF STRESS AMONG MANAGEMENT STUDENTS: A DEMOGRAPHIC ANALYSIS

**Kshama Ganjiwale\*, Dhanashree Nagar\***

*Stress is a situation one is not able to cope up with. It is a critical part of our life. It affects our mental as well as physical health. The present study has been carried out with an aim to analyze the stressors affecting management students. The variables considered for the study are divided into the factors such as financial, emotional, academic and social stress derived from the literature review. Respondents for the present study were under graduate and post graduate students with different demographics such as age and gender. t-Test is used to verify the relationship between stress factors, gender and education. One way ANOVA has been applied to test the significant difference between age groups and factors of stress. Parents support and expectations were some of the causes of Emotional Stress. Students found difficulty in paying college fees of higher education and were unable to spend money on their leisure which is a predictor of financial stress. Fast track life and unpredictable behaviour of friends and family members were leading to social stress. Academic structure, education system and teaching methodology are the causes of academic stress. Study concludes that overall male students are significantly different than females in terms of stress at graduate level. Age group upto 20 years of age is significantly different in terms of stressors than the other age groups. It is suggested that professional institutions and parents need to understand roots behind stressors among students and take suitable steps to minimize stress in student's life.*

**Keywords:** Stressors, Causes, Consequences, Management Students, Demographic, Perception.

### INTRODUCTION

Stress is a part of everyone's life which is difficult to avoid in certain situations. It creates an effect on one's physical, mental as well as emotional state of mind. Youngsters, especially, college students experience stress which is connected to academic activities, changes in lifestyle, increased workload, interpersonal relationships and many more other factors. High level of stress not only hamper work efficacy but also leads to have an impact on academic performance and one's overall happiness associated to that. Extensive research has been carried out related to causes and effects of stress among the students (Agolla, 2009). Studies show that stress has both, positive as well as negative

consequences (Stevenson and Harper, 2006).

Academic institutions have different work settings and therefore, one would expect the difference in symptoms, causes and consequences of stress (Chang and Lu, 2007). It is essential for management students to acquire necessary set of skills and knowledge that contributes to their growth as well as the growth of the society. Moreover, it is important for the institutions to maintain well balanced academic environment for better learning, with the focus on the students' personal and professional needs (Goodman, 1993). The stressors among the students could be varied such as projects and assignments deadlines, competition with other students, poor performance, relationship with other

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students and teachers etc. (Fairbrother and Warn, 2003). Excessive stress makes them experience physically and psychologically impaired. Some of the means to reduce the stress effectively adopted by students are efficient time management and social interaction (Murphy and Archer, 1996). Stressors affecting students can be categorized as academic, financial, time or health related, and self-imposed (Goodman, 1993). On the other hand as the management education is an important medium that facilitates improvement of leadership qualities and turns out excellent future managers, students entering into the professional education need to face many challenges to which they have never been exposed earlier resulting into creating more stress (Hirsch and Ellis, 1996). For academic institutes, understanding the causes behind stress will let the educational institutions to monitor and control these factors in more effective way.

## **REVIEW OF LITERATURE**

Studies reveal that university students are prone to stressors due to the transitional nature of university life (Hamaideh, 2011). High level of stress affects their academic performance as well as health. Some of the stressors experienced by the students are “self imposed” followed by “pressure”. College students are expected to be elite (Kai-Wen, 2012). Thus, more stress is due to mental and emotional factors along with physical factors. Constant conflicts with parents and friends, poor academic performance, expectations of self and teachers, relationships and role differentiation result into stress especially among male college students. The instability in emotions such as nervousness, worry, frustration etc. affects their learning abilities. Some of the researches have also come up with stressors such as academics, social relationships, financial instability and familial relationships (Larson, 2006) among the management students.

To overcome with this stress, measures like application of stress management techniques, time management, regular career and personal counselling could be done to reduce stress (Hamaideh, 2011). Male students encounter elevated level of stress as compared to female students sometimes due to inferior mental well being. In such cases, control over emotions and support from family members may act as stress reliever to them. As the college students are continuously under the pressure to succeed or to overcome with economic hardships, they are under stress. (Pariat et.al., 2014). Societal problem, decline in academic performance and lack of opportunities adds up to them resulting in physical and mental fatigue (Trockel et. al., 2000). Social support from institution, teachers/ mentors, friends and family certainly has an impact on student’s achievement and performance. Emotional and financial factors ascertain the success of college students and positive coping strategies have buffering effect on psychological health (Chen et. al., 2012). Some of the causes of stress among male students of management, leading to higher level of stress is poor psychological well-being along with academic workload, social pressures and time management (Britz and Pappas, 2010). Adding to this, Laurence et. al. (2009) found that exams, fear of failing, decreased self-esteem and prompt reduction in time spent in leisure activity have been associated with higher stress levels. Considering the above literature the study has been conducted with two objectives.

## **OBJECTIVES**

- To analyze the factors leading to stress among management students in Indore.
- To examine the association between students’ demography and factors leading to stress.

## METHODOLOGY

**The Study:** The present study is exploratory in nature and is based on survey approach.

**The Sampling:** Convenience sampling technique has been used to collect the primary data. 70 management students of Indore pursuing undergraduate and post graduate have been selected for the study.

**Tools for Data Collection:** Primary data has been collected through structured questionnaire. The information is gathered from students of Indore pursuing graduation and post graduation in management stream. The questionnaire consists of the variables associated with causes of stress among these students taken from the available literature. Questionnaire is divided into five parts consisting of demographic characteristics of respondents and variables of financial, social, emotional and academic stress. The data is collected with the help of Five Point Likert Scale ranging from 1 as strongly disagree to 5 as strongly agree.

**Tools for Data Analysis:** Factor Analysis, ANOVA and t-Test have been used for Analyzing the collected primary data.

## HYPOTHESES

H<sub>01</sub>: There is no significant difference between Male and Female students in terms of stress level based on Academic Stressors

H<sub>02</sub>: There is no significant difference between Male and Female students in terms of stress level based on Financial Stressors.

H<sub>03</sub>: There is no significant difference between Male and Female students in terms of stress level based on Emotional Stressors.

H<sub>04</sub>: There is no significant difference between Male and Female students in terms of stress level based on Social Stressors.

H<sub>05</sub>: There is no significant difference between Age Groups in terms of stress level based on Academic Stressors

H<sub>06</sub>: There is no significant difference between Age Groups in terms of stress level based on Financial Stressors

H<sub>07</sub>: There is no significant difference between Age Groups in terms of stress level based on Emotional Stressors

H<sub>08</sub>: There is no significant difference between Age Groups in terms of stress level based on Social Stressors

H<sub>09</sub>: There is no significant difference between Graduates and Post Graduates in terms of stress level based on Academic Stressors

H<sub>10</sub>: There is no significant difference between Graduates and Post Graduates in terms of stress level based on Financial Stressors.

H<sub>011</sub>: There is no significant difference between Graduates and Post Graduates in terms of stress level based on Emotional Stressors.

H<sub>012</sub>: There is no significant difference between Graduates and Post Graduates in terms of stress level based on Social Stressors.

## RESULTS

Table 1 interprets the demographic statistics of the respondents. Out of total 70 respondents 40 percent are male and 60 percent are female students. 32 percent respondents are upto the age of 20 years, 36 percent are between 20-25 years of age and 32 percent are more than 25 years of age. 34 percent students are under graduates and 66 percent are pursuing post graduation.

### Factor Analysis

KMO and Bartlett's Test has been applied to measure overall sample adequacy which is coming to 0.920 with significance level of 0.000 (Table 2). This shows that the sample is adequate. Factor analysis has been applied to identify the important factors contributing to stress among students. Total four factors

have been extracted which are described in Factor Tables (Table 3 and Table 3a). Factor Group 1 is named as Academic Stressors consisting of 11 variables. Some of the important variables include difficulty of maintaining balance between coverage of studies, short of time, pressure due to unavailability of study material, imbalance between academic and social activities and so on, leading to Academic Stress among the respondents. Factor Group 2 is named as Financial Stressors consisting of 9 variables. Some of the important variables leading to Financial Stress are lack of confidence in repayment of cost of education, difficulty in arranging money and payment of fees, borrowing money and so on. Factor group 3 is named as Emotional Stressors. This group consists of 8 variables namely pessimism for no reason, feeling of being in trouble without any reason, bad grades, thoughts differentiation, need of support from close relatives, good attitude of people and so on. The fourth and last factor group is named as Social Stressors. This group consists of 5 variables associated with social stress like need of admiration in every deed, need of family, need of appreciation, social obligations and choice for better future.

### **Relationship between Gender and Factors**

t-Test has been applied to test the difference between genders in terms of level of stress based on calculated factors. Table 4a shows significant difference between male and female students based on all four factors. F value 85.406 for Academic Stressors is significant at 0.000 level with degree of freedom equals to 68. Similarly, in case of Financial Stressors, F value 43.471, F value 54.849 for Emotional Stressors and F value 137.346 for Social Stressors is also significant at 0.000 level with degree of freedom equals to 68 ( $p < 0.05$ ). In light of this the null hypotheses ( $H_{01}$  to  $H_{03}$ ) are rejected. The study reveals that there is a significant difference between male and female students

in terms of stress level based on Academic Stressors, Financial Stressors, Emotional Stressors and Social Stressors. Further, the study reveals that in case of all the four factors male students are significantly different than females (Table 4, 4a).

### **Relationship between Age and Factors**

One Way ANOVA was applied to test the difference between age groups in terms of stress level based on all four factors identified (Table 5). It has been observed that the F value 123.920 for Academic Stressors, F value 152.208 for Financial Stressors, F value 115.825 for Emotional Stressors and F value 104.227 for Social Stressors is significant at 0.000 level of significant with degree of freedom equals to 3. In light of this all the four null hypotheses ( $H_{05}$  to  $H_{08}$ ) were rejected. Further, it has been found that age group upto 20 years of age is significantly different in terms of academic Stressors, Financial Stressors, Emotional Stressors and Social Stressors than the other age groups (Table 5, Table 5a).

### **Relationship between Education Level and Factors**

The significant difference between Graduate and Post Graduate students based on all four factors has been tested by applying t-Test (Table 6, Table 6a). F value 32.759 for Academic Stressors is significant at 0.000 level with degree of freedom equals to 83. Similarly, in case of Financial Stressors, F value 55.289, F value 42.164 for Emotional Stressors and F value 20.913 for Social Stressors is also significant at 0.000 level with degree of freedom equals to 83 ( $p < 0.05$ ). In light of this the null hypotheses ( $H_{09}$  to  $H_{012}$ ) are rejected. The study reveals that there is a significant difference between Graduate and Post Graduate students in terms of stress level based on Academic Stressors, Financial Stressors, Emotional Stressors and Social Stressors. Further, the study reveals that in case of all the four factors Graduates are

significantly different than Post Graduates in terms of level of stress (Table 6, 6a).

## DISCUSSION AND CONCLUSION

The study has come up with four factors namely, Academic Stressors, Financial Stressors, Emotional Stressors and Social Stressors. These four factors consist of important variables such as borrowing money for college, feeling that my parents cannot support me, I feel that I am not able to adjust the pressure of studies, expectations of parents to grow high in academics, money oriented future, hard efforts taken by parents to fulfil the requirements, feeling of getting in trouble and so on. To measure the significant impact of Gender on level of stress t-test has been applied. It has been observed that male students are significantly different that female students in terms of stress level based on all four factors. The significant impact of age is measured on the level of stress among the students based on four factors. It was observed that age group upto 20 years is significantly different in terms of level of stress based on the above four factors. In all there is high level of stress among male students compared to the female students at Graduate level.

## IMPLICATIONS OF STUDY

The research highlighted most critical factor for stress of students at university. The factors considered are from various background like emotional, financial, social and academic. It is helpful for professional institutions and parents to understand factors which create stress to students and make an environment which minimize stress in student's life. Further, the study can be carried out on specific factor to analyze the intensity of stress among students at different levels and to incorporate corrective action to reduce stress. Along with creation of positive environment, the institutes may embark on stress reducing recreation

activities as a part of their curriculum. By identifying the issues of related to each component the study could provide better insights to the teachers and administrators for initiating efforts to reduce the intensity of stress.

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## ANNEXURES

**Table 1: Demographic Profile**

Gender	No. of Respondents	Percent
Male	28	40 percent
Female	42	60 percent
<b>Total</b>	<b>70</b>	<b>100</b>
Age	No. of Respondents	Percent
< 20 years	22	32 percent
20-25 yrs	26	36 percent
> 25 yrs	22	32 percent
<b>Total</b>	<b>70</b>	<b>100</b>
Education	No. of Respondents	Percent
Under Graduates	24	34 percent
Post Graduates	46	66 percent
<b>Total</b>	<b>70</b>	<b>100</b>

**Table 2: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.920
Bartlett's Test of Sphericity	Approx. Chi-Square	7897.970
	df	820
	Sig.	.000

**Table 3: Factor Table**

Factors	Eigen Values	Percent of Variance	Cumulative Percent
Academic Stressors	10.373	94.300	94.300
Financial Stressors	8.171	90.794	90.794
Emotional Stressors	7.127	89.088	89.088
Social Stressors	4.503	90.061	90.061

**Table 3a: Factor Description**

<b>Factor 1: Academic Stressors</b>	
Attributes	Loading
Sometimes it becomes difficult for me to maintain balance between course that I am studying and that is being covered in class	.982
Sometimes I feel short of time while studying	.979
I feel pressurized when I do not get the study material that I am searching for	.978



I feel that it is very difficult for me to find a balance between my academic and social activities	.975
I feel that my parents think that I am not serious about my studies	.973
I feel that co curricular activates affect My study	.971
I am not able to adapt to some teachers' teaching methods.	.969
I am not able to follow deadlines of assignments given in college	.967
I worry that my academic results will not meet my parents' expectations	.965
I feel that I spend a lot of time participating in societies and activities.	.957
I feel that I do not understand a lot about some teachers' teaching content	.956
<b>Factor 2: Financial Stressors</b>	
<b>Attributes</b>	<b>Loading</b>
I not assured whether I will repay my education cost after completion of degree	.982
I feel difficulty in arranging money for the sake of enjoyment	.974
I sometime feel difficulty in paying fee	.969
Need to borrow money for college	.966
I feel cost of my education is very high	.965
I am hesitant to ask for money from parents	.961
I have to be financially very strong in future	.949
I feel sometimes it is difficult for my parents to fulfil my needs	.931
I feel my parents cannot supports me	.876
<b>Factor 3: Emotional Stressors</b>	
<b>Attributes</b>	<b>Loading</b>
Sometimes I feel pessimistic for no reason	.980
Sometimes I feel like I will be in trouble without any reason	.977
I feel bad when I get bad grade	.967
Sometimes I feel the differentiation in thoughts with my family and friends	.952
I need my close relations to support me a lot	.948
I feel sometimes people don't show good attitude to me	.934
I want a good positive healthy life with my family and friends	.897
Sometimes I am worried about my future	.893
<b>Factor 4: Social Stressors</b>	
<b>Attributes</b>	<b>Loading</b>
I feel people should admire me and my every deed	.958
I always feel the need of my family around me	.955
I need appreciation of the people around me	.951
Sometimes I feel my life is pressurized under social obligations	.947
I feel like I could choose something good for better future	.934



**Table 4: Group Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Academic_Stressors_mean	Male	28	4.9773	.06368	.01204
	Female	42	3.4848	.72440	.11178
Financial_Stressors_mean	Male	28	4.9683	.07919	.01497
	Female	42	3.6796	.70143	.10823
Emotional_Stressors_mean	Male	28	4.9196	.06099	.01153
	Female	42	3.9690	.55359	.08542
Social_Stressors_mean	Male	28	4.9786	.08325	.01573
	Female	42	4.1381	.45797	.07067

**Table 4a: Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95 percent Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Academic_Stressors_mean	Equal variances assumed	85.406	.000	10.847	68	.000	1.49242	.13758	1.21788	1.76697
	Equal variances not assumed			13.275	41.948	.000	1.49242	.11242	1.26554	1.71931
Financial_Stressors_mean	Equal variances assumed	43.471	.000	9.658	68	.000	1.28869	.13344	1.02242	1.55496
	Equal variances not assumed			11.794	42.559	.000	1.28869	.10926	1.06827	1.50911

Emotional_Stressors_mean	Equal variances assumed	54.849	.000	9.029	68	.000	.95068	.10529	.74057	1.16079
	Equal variances not assumed			11.029	42.485	.000	.95068	.08620	.77679	1.12457
Social_Stressors_mean	Equal variances assumed	137.346	.000	9.584	68	.000	.84048	.08770	.66548	1.01548
	Equal variances not assumed			11.609	44.998	.000	.84048	.07240	.69466	.98629

Table 5: Descriptive

	N	Mean	Std. Deviation	Std. Error	95 percent Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					Academic_Stressors upto 20	22		
20-25 yrs	26	49.8077	4.99615	.97983	47.7897	51.8257	43.00	55.00
>25 yrs	22	34.3636	4.55177	.97044	32.3455	36.3818	28.00	43.00
Total	70	44.9000	10.17549	1.21620	42.4737	47.3263	25.00	55.00
Financial_Stressors upto 20	22	44.6667	.76696	.18078	44.2853	45.0481	43.00	45.00
20-25 yrs	26	41.5385	3.30128	.64743	40.2050	42.8719	36.00	45.00
>25 yrs	22	30.3333	3.16754	.69121	28.8915	31.7752	24.00	36.00
Total	70	37.7971	7.57236	.91160	35.9780	39.6162	21.00	45.00
Emotional_Stressors upto 20	22	39.4444	.51131	.12052	39.1902	39.6987	39.00	40.00
20-25 yrs	26	37.4231	2.50077	.49044	36.4130	38.4332	33.00	40.00
>25 yrs	22	29.5714	2.31455	.50508	28.5179	30.6250	27.00	33.00
Total	70	34.8841	5.06295	.60951	33.6678	36.1003	24.00	40.00
Social_Stressors upto 20	22	24.8333	.51450	.12127	24.5775	25.0892	23.00	25.00
20-25 yrs	26	23.8077	.98058	.19231	23.4116	24.2038	23.00	25.00
>25 yrs	22	19.4545	1.71067	.36472	18.6961	20.2130	18.00	23.00
Total	70	22.3714	2.73555	.32696	21.7192	23.0237	18.00	25.00



Academic_Stressors_ mean	Equal variances assumed	32.759	.000	15.278	83	.000	2.06111	.13491	1.79279	2.32943
	Equal variances not assumed			16.191	62.717	.000	2.06111	.12730	1.80670	2.31552
Financial_Stressors_ mean	Equal variances assumed	55.289	.000	13.372	83	.000	1.93496	.14471	1.64714	2.22278
	Equal variances not assumed			14.353	53.494	.000	1.93496	.13481	1.66462	2.20530
Emotional_Stressors_ mean	Equal variances assumed	42.164	.000	13.353	83	.000	1.55628	.11655	1.32446	1.78810
	Equal variances not assumed			14.403	50.073	.000	1.55628	.10805	1.33926	1.77329
Social_Stressors_me an	Equal variances assumed	20.913	.000	10.320	83	.000	1.32475	.12836	1.06944	1.58006
	Equal variances not assumed			11.124	50.627	.000	1.32475	.11909	1.08561	1.56388

## A STUDY ON CHALLENGES FACED BY TRADITIONAL ENTREPRENEURS IN MODERN TIMES IN UJJAIN REGION

**Namita Soni Sugandhi\*, Aparna Vashistha\*\***

*Indian Economy is facing a biggest challenges in achieving the objective to provide employment to the youth which is around 300 million. The solution identified by both public and private sector is Entrepreneurship. Entrepreneur not only play significant role in employment generation but also promotes capital formation. The current study identifies different factors which are faced by the entrepreneurs as challenges with help of 100 respondents from Ujjain region, authors used ranking scale to find out the most important challenges faced by entrepreneurs findings of this study suggests that traditional entrepreneur should be supported with the coordination of financial and government agencies.*

**Keywords:** *Entrepreneur, Factor Related Finance, Ranking Scale, Percentage Analysis.*

### INTRODUCTION

Indian economy is striving hard to depart from the status of developing economy to the developed economy. One of the biggest challenges faced by the Indian economy in achieving this objective is to provide employment to almost 300 million youth. The current economy structure is in position of providing jobs only to 100 million seekers. The experts are busy in identifying possibilities in both public and private sectors; still the difficulty in absorbing the remaining unemployed population persists. The best solution to this problem is entrepreneurship. Entrepreneur not only play significant role in employment generation and economic development but also promotes capital formation, balanced regional development and contributes in improving the standard of living of people by offering unique goods and services.

The importance given to entrepreneurship in Indian economy is very evident through various initiatives taken by the Government. Government for boosting the startups and entrepreneurial ventures has laid programs like SETU i.e. Self Employment and Talent

Utilization, Atal Innovation Mission and many other schemes for promoting the startups. Along with the government several other organizations are partnering with the entrepreneurs for enriching the economy. Despite of the motivating environment available to the entrepreneurs, the challenge is not only to start the venture but also to manage the enterprise. The traditional entrepreneurs are facing a lot of problems, related to marketing, raw materials, power supply, labour, poor infrastructure facilities, finance and internal management, government policies etc. This paper is tried to identify the problems faced by the small traditional entrepreneurs in Ujjain region.

### REVIEW OF LITERATURE

The traditional entrepreneurs has been playing major contributing role in the economic development of the country since ages, still the problems faced by them persists. Some of the major problems faced by the traditional entrepreneurs as studied by various scholars. Deb (1993) identified that the common problems that restrict the micro and small enterprises at national stage are capital base, lack of appropriate technical

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knowhow, poor bargaining power and lack of marketing activities for selling and promoting the products.

Shivaloganathan, (2002) explained that the major problem faced by micro and small firms arises due to difference in the scale of business. The larger firms have the power to influence the factors of production but the small firms don't have choice other than reacting to the problems faced by them and ultimately managing them at personal levels. Chinnaiyan and Nandagopal (2005) in their study identified that the micro and small business units normally face problems of finance, marketing, procurement of raw material, and the main reason for the same is that the financial agencies and individual investors consider them as high risk investment avenues.

Jose, (2005) stated that the small business units due to their sizes and scale faces problem related with the technology they use and the in-availability of trained man force. In order to help the small organization Government should provide proper assistance. Desai, (2006) in his research bifurcated the problems of small entrepreneurs in two parts internal and external. He stated the internal problems are management production activities, of distribution activities, the organization structure and employees training. The major external problems encountered are power scarcity, infrastructure bottleneck and other communication problems.

Patgaonkar (2010) concluded that the major problem faced by the enterprises is financial in nature, she stated that it is shortage of funds in both long run and short run while other problems are poor power and water supply. Santhi and Kumar (2011) identified that during regular course small entrepreneurs faces financial, technological, family, social, and policy challenges. They stated that small entrepreneurs can be encouraged by government though helping

them by adopting technology and promoting them for a healthy growth.

Manjusmita, and Kulveen (2012) did their research in Orissa on young entrepreneurs and found that the major problems faced by them are regulatory barriers and the cultural problems. These barriers hinder the entrepreneurs in growing up as an entrepreneur. Nayar and Vasanth (2012) in their study focused on the cultural restriction, bureaucratic issues and problems of distribution faced by Indian entrepreneurs.

Joseph (2016) did his study on women entrepreneurs and identified the problems they face while establishing their business. According to the study women entrepreneurs who set their micro enterprises face technological, financial and market challenges. Jayabal and Soundarya (2016) conducted their research on rural entrepreneurs and identified that poor education, lack of funds, lack of innovative technology are their major problems.

## OBJECTIVE

- To identify the challenges faced by entrepreneurs among the technology, finance, human resource, marketing, supply chain and government related factors.

## METHODOLOGY

**The Study:** An exploratory study on challenges faced by traditional entrepreneurs in modern times in Ujjain region is undertaken to address these challenges to the society.

**The Sample:** The present study were undertaken at Ujjain region in the state of Madhya Pradesh. The sample size of the research was 100 respondents. The data was collected from various entrepreneurs' i.e. manufacturers and traders of Ujjain region. Purposive sampling technique was used in the study.

**Tools for Data Collection:** Data were collected with the help of structured questionnaire. The questionnaire consisted independent demographic variables and the problem factors that are faced by the business enterprises in different business processes like technological, financial, human resource, marketing, supply chain and government related factors. Ranking scale was used to record the opinion the respondents.

**Tools for Data Analysis:** The present study was conducted identify the challenges faced by entrepreneurs among the technology, finance, human resource, marketing, supply chain and government related factors. Percentage method is applied for evaluating the desired result. Weighted rankings are calculated to identify the most important challenges faced by traditional entrepreneurs among the stated factors.

## **RESULT AND DISCUSSION**

On the basis of the literature reviews the problem factors were identified for the present research study. The analysis of the problems / challenges faced by the enterprises was taken up with a view to identify the most pressing problem faced by the small traditional entrepreneurship on the basis of their magnitude and the intensity. Through a structured questionnaire the entrepreneurs were asked to rank the problems under finance, marketing, human resource, supply chain management, technology and government related factors. The entrepreneurs were asked to mark out the major problems faced by them under the stated factors.

Data have been analyzed in the following manner on the basis of rankings that have been calculated at first step and then average of rankings given by the entrepreneurs groups has been taken.

**Financial challenges** – The first and the most crucial factor that affect the traditional

entrepreneurs is the financial factor i.e. non-availability of long term as well as short term funds. Due to the shortage of funds the traditional entrepreneurs are unable to plan sales promotion, advertisements and other activities that make them competitive. The nature of financial problems faced by the small traditional entrepreneurs in the study were depicted in the Table 1.

According to the small traditional entrepreneurs in Ujjain region the most serious finance related problem faced by them is credit cycle with 29.35 rating percentage. Entrepreneurs gave it a first rank, since they are the small players and they have to carry on with uninterrupted business activities by regular purchasers and timely payments. Thus, the mismatch between cash inflow and the outflow is the biggest problem. These entrepreneurs for the purpose of managing the working capital of their small business units generally take small loans. And so the next finance related problem is 'high rate of interest rates' with 25.16 percentage rating. Difficult to sought assistance from Government agencies with 23.87 percent got third rank. The rigidity in the banking rules and regulations is considered as the last financial pressing problem with 21.61 percent.

**Human Resource Challenges**– In the Ujjain Region the small traditional entrepreneurs are facing the human resource problem related to the manpower for running their day to day business processing. Ujjain being a small place, the major problems faced by the small entrepreneurs are skilled and literate workforce, who are sincere and hard working. Finding such people is a challenge in itself and the next challenge is to retain them, as the employee turnover at such levels is very high. The table 2 shows that human resource problems faced by the small traditional entrepreneurs participated in the study.

One of the major human resource problem faced by the small entrepreneurs (ranked 1) with 34.52 percent rating is availability of skilled and literate workforce. The problem of availability of skilled and literate labour is faced as by more than 70 percent of small entrepreneurs of the region. The problem ranked second by the small entrepreneurs was high labour cost with 24.10 percent, as the supply of skilled and literate workforce is limited and the demand for the same is high. The small traditional entrepreneurs have to pay higher cost for recruiting and maintaining the skilled labour. Due to the closeness of Ujjain to Indore city which is approaching as a metro city, the skilled as well as unskilled labour are moving towards Indore. Thus, the third rank is given to problems of labour turnover with 21.29 percent rating and attitude of people fall at rank fourth with is 20.52 percent rating. The table makes it clear that the problem of human resource is one of the major problems.

**Marketing Challenges** – Marketing is a gap bridging factor among the proposed profits and the real ones. It is a factor that bridge the gap between the trader or the manufacturer and the customer. The small traditional business has to face many problems in the process of selling and generating prospective demand due to the growing competition among various big and small players of very rapidly changing market place. Modern promotion tools such as use of websites, social media or other technologies for marketing their products and their establishments is another aspect that poses difficulties to these players. Customer relationship management i.e. knowing your customers well, serving them not only at the time of selling but also when they require after sales services with ease and convenience. One more problem the small traditional entrepreneurs face is of branding and repositioning their brands in the competitive and ever changing market place.

The table 3 shows that 26.67 percent rating is given to market competition as the problem with first rank problem among the small traditional entrepreneurs. Around 58 percent of the sample population states it as the major problem. Changing market place in the current scenario where small entrepreneurs are unable to cope with the fast changing markets pose the second most pressing problem with 22.80 percent rating. Due to the small size of the entrepreneurship firm and lack of financial resources the small tradition entrepreneurs are unable to put a lot of efforts in promotion so 'lack of promotion' is ranked as the third pressing problem with 19.35 percent rating. Customer relationship management according to the small traditional entrepreneurs is maintaining the records of customers, managing long term relationship with them by providing them after sales service, etc. The small traditional entrepreneurs are rating it at 4<sup>th</sup> rank with 15.70 percent rating. At the fifth rank is assigned to "the use of modern promotional tool". As the survey is conducted on traditional small entrepreneurs who do not consider the use of modern promotional tools is important for them.

**Supply Chain Management Challenges** – The management of demand and supply by the small traditional entrepreneurs take a lot of time and planning. A major problem faced by small entrepreneurs is procurement and availability of raw materials, its quality, costs, etc., due to the size of the business normally the negotiation and the bargaining power vests in the hands of the suppliers rather than the buyers. Unavailability of transportation also creates problems in free movement of potential investors, skilled labour force and cheap raw materials.

Changing customer choice is one of the most pressing problems faced by the small entrepreneurs in Ujjain region which is ranked first with 21.94 percent rating. Due to lack of financial aids the small



entrepreneurs are unable to adapt with the changing demands of their customers. Management of buyers scores second rank with 21.51 percent rating among the traditional entrepreneurs as they do not have bargaining power due to their small demands in-front of their buyers. Transportation problems is ranked third with 20.43 percent rating as the small entrepreneurs due to their small requirements have to manage the transportation facilities by themselves. With the small ordering amounts the transportation service is not normally provided to buyers. Availability of raw material both in terms of quality and cost is ranked as the fourth among the problems related to supply chain management with 19.57 percent rating. The management of demand and supply is ranked as the fifth problem with 16.56 percent rating.

**Government Related Challenges** – The infrastructure required for the business, the availability of power, fuel for running the business play vital factors for the running and continuation of small traditional entrepreneurship ventures. The businesses partners i.e. the suppliers, the distributors, the customers can only be satisfied and reached easily if the government provides these basic facilities. As the small traditional entrepreneurs are facing various difficulties, the government launched some assistance schemes that are available to them. The only challenges is that can entrepreneurs take benefits of such schemes with ease. The taxes and the taxation policy of government for the small traditional entrepreneurs may also act as the major difficulty faced by the small entrepreneurs.

The small traditional entrepreneurs of Ujjain region considered assistance from government agencies as one of the most pressing problem as it is ranked first by them with 29.99 percent ranking, 53 percent of small entrepreneurs have ranked difficulty

in getting assistance from government agencies as first or second position. The second most pressing problems faces by these entrepreneurs is of taxation schemes of government with 25.54 percent rating. According to them GST has poses major challenge to them because understanding the new scheme and complying with it is one of the major problems. The third rank is given to the power and fuel availability for manufacturing and other regular activities of these small entrepreneurs with 24.89 percent rating. The fourth rank is given to the infrastructure facilities provided by the government as the buyers and the seller both are at local levels and the small entrepreneurs does not required big infrastructure and thus has given 20.47 percent rating.

## **CONCLUSION AND SUGGESTIONS**

In the study major challenges of the traditional entrepreneurs of Ujjain city were analyzed. The effort was made to identify the magnitude of various problems/ challenges faced by the traditional entrepreneurs. Most pressing financial problem faced by the traditional entrepreneurs in Ujjain region is credit cycle. 29.35 percent small entrepreneurs consider credit cycle as the major problem, irregular cycle of cash receivables interrupts their business activities but due to their small scale these entrepreneur have to make payments on time. This mismatch between cash inflow and the outflow is their biggest problem.

Most pressing human resource problem faced by the small traditional entrepreneurs is availability of skilled and literate workforce. 70 percent of small entrepreneurs of the region stated it as their major human resource problem, as educated and skilled people leave the city for finding better employment opportunities. Most pressing marketing problems faced by small traditional entrepreneur with 26.67 percent rating is the market competition. Due to the small scale of business owners 58 percent of

them are unable to face the fierce competition in the market.

Most pressing supply chain problem faced by the traditional small entrepreneurs is changing customer choice as it is ranked first with 21.94 percent ranking. Due to lack of financial aids the small entrepreneur are unable to adapt with the changing demands of their customers. With a very small margin the problem ranked as second is management of buyers, as the traditional entrepreneurs do not have bargaining power over their buyers. Most pressing government related problem faced by the small traditional entrepreneur of Ujjain region is the assistance they should receive from government agencies. 53 percent of small entrepreneurs have ranked difficulty in getting assistance from government agencies as major problem.

Thus, small traditional entrepreneurs of Ujjain region face some inherent problems such as management of credit cycles, small markets big competitors, lack of trained human resources, lack of funds, poor technology, poor assistance from government agencies, etc. For the small entrepreneurs modernization is a difficult task due to their very small capital base. Even the problem of lack of skilled human resource is due inability of these firms to pay for skilled human resource. One of the major issues faced by the small traditional entrepreneurs is the lack of support these firms get from lending organizations as the financial institutions consider them as risky avenues. Thus, the problems faced by these small traditional entrepreneurs are multi-dimensional, the only solution to these problem can be achieved through coordination among entrepreneurs, supporting institutions and government agencies.

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## ANNEXURES

Table 1 : Financial Problems

Problems	Entrepreneur Ranking of financial Problems						
	1 Rank	2 Rank	3 Rank	4 Rank	Weighted Score	Rating Percentage	Rank
High Interest Rates	33	0	45	12	234	25.16	2
Credit Cycle	27	39	18	12	273	29.35	1
Assistance from Government Agencies	18	24	24	30	222	23.87	3
Rigid Banking Rules and Regulations	15	30	6	39	201	21.61	4
Total	93	93	93	93	930	100	

Table 2: Human Resource Problem

	Entrepreneur Ranking of Human Resource Problems						
	1 Rank	2 Rank	3 Rank	4 Rank	Weighted Score	Rating Percentage	Rank
Availability of skilled employees	66	9	12	6	321	34.52	1
Employee Turnover	12	12	45	24	198	21.29	3
Literacy Level	9	42	18	24	222	23.87	2
Attitude of people	6	30	18	39	189	20.32	4
Total	93	93	93	93	930	100	

Table 3: Marketing Problems

	Entrepreneur Ranking of Marketing Problems							
	1 Rank	2 Rank	3 Rank	4 Rank	5 Rank	Weighted Score	Rating Percentage	Rank
Market competition	54	9	12	15	0	372	26.67	1
Changing market places	21	33	21	3	12	318	22.80	2
Lack of promotion	9	18	27	30	12	270	19.35	3
Customer relationship management	3	24	12	12	48	219	15.70	4
Modern promotion tools	6	9	21	33	21	216	15.48	5
Total	93	93	93	93	93	1395	100.00	

**Table 4: Supply Chain Management Problems**

	Entrepreneur Ranking of Marketing Problems							Rank
	1 Rank	2 Rank	3 Rank	4 Rank	5 Rank	Weighted Score	Rating Percentage	
Demand and supply management	15	3	15	39	21	231	16.56	5
Management of business stake holders	21	15	35	3	24	300	21.51	2
Availability of raw material	18	12	27	21	12	273	19.57	4
changing customer choices	24	24	15	15	15	306	21.94	1
Transport problem	15	39	1	15	21	285	20.43	3
Total	93	93	93	93	93	1395	100.00	

**Table 5: Government Related Problem**

	Entrepreneur Ranking of Government Related Problems						
	1 Rank	2 Rank	3 Rank	4 Rank	Weighted Score	Rating Percentage	Rank
Infrastructure	12	33	3	37	190	20.47	4
Taxation schemes	24	30	9	33	237	25.54	2
Assistance from government agencies	33	18	39	6	270	29.09	1
Power and Fuel	24	12	42	15	231	24.89	3
	93	93	93	91	928	100	

## A STUDY ON FACTORS INFLUENCING INVESTORS DECISION TO INVEST ONLINE IN SELECT INVESTMENT AVENUES

**Umang Mehta\*, Minal Uprety\*, Sunil Kumar Verma\***

*The accessibility of internet and its popularity among people has made investors to think out of box that is from traditional offline investment methods and move towards online investment. This made the study of online investment for investors very important. This empirical study aims to identify the factors that influence investors to invest through online platforms. This paper identified impulse investment, internet competence, convenience, security and privacy as the key factors for investor's decision making when investing online. Online investment successfully converted people from money savers into investors. Also impulsive online investment motivated people to save and invest more rather than spending money on unnecessary shopping.*

**Key Words:** Online Investment, Impulsive Investment, Internet.

### INTRODUCTION

Investment is referred as the allocation of saving funds into then available avenues with an expectation for higher return in future. Access to the large sources of information made people much more knowledgeable and better informed about the availability of investment opportunities, but they are in short of adequate knowledge to manage them efficiently. Many firms are moving to make virtual interfaces their major, or even sole, points of customer contact. In this environment, traditional service quality dimensions such as the physical appearance of facilities, responsiveness and empathy are unobservable for customers (Balasubramanian, et al., 2003). In virtual deals platform trust may play a key role in enhancing customer satisfaction. Online and traditional investment differ to a large extent in terms of how the information is accessed and processed, the kind of intermediation, and the method of trading (Barbar and Odean, 2000).

In the words of Volpe et. al. (2000), E-finance has made incredible roads in rendering of the traditional financial services such as mortgage processing, credit card payments,

electronic tax filing, internet checking and saving accounts, and online investing. The introduction of online investment has significantly impacted investor's decision making course by providing on the spot access to a vast amount of financial information along with lower transaction costs and quick order execution.

### REVIEW OF LITERATURE

Stern (1969) in his study identified one of the style of investing that is aggressive investor, who claims to identify changes before investment and deals in concepts not in price earnings ratio. These are opportunists who checks out every deal which came in front of them before acting on it. They require independence to act quickly.

Nagy and Obenberger (1994) argue that classical wealth-maximization criterion is vital to investors; they take up diverse criteria at the time of choosing investment in equities. The investor's (perceived) expertise is one of the major attributes that have impact on decision making while investment. They emphasized that importance of investors knowledge is a function of distinct investor and asset characteristics. Prabakaran and

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Jayabal (2009) stated that mutual fund houses must consider socio-economic factor of the investors which has an important influence on investment decision making. Mutual fund organizations must concentrate on creating awareness amongst retail investors, creating mutual funds reach in the rural areas, curbing unethical practices, maintaining transparency and flexibility, maintaining good rapport with the investors which will enable the investors to have a high level of risk tolerance.

Balasubramanian et. al. (1999) found seven basic reasons for adopting online trading namely feeling of empowerment, cost, speed and availability, convenience; easy access to reliable information, lack of trust, unsatisfactory experiences with traditional brokers; and investors' discomfort when communicating directly with traditional brokers.

Cox and Dale (2001) identified and proved statistically that 'ease of use' is one of the important quality factors of a website and a system found to be useful and easy to use will have an impact of continuous condensation among users. Additionally, users may share their experiences on the use of a particular system to their contemporaries thus, benefitting the business organizations. Volpe et. al. (2002), in their study, found that old age people (of age more than 50 years) were more knowledgeable compared to youngsters. Old age people surveyed were found to be more engaged in online investment than youngsters. The study also identified that those investors who had once done online investment were much ahead in knowledge about online investment compared to those investors who had not.

Srijumpa et al. (2002) found that the primary benefits of using online trading are speedy and low cost transactions. Other benefits include round-the-clock trading control; ease

of use; enjoyment; more choices; attractive to cost conscious customers; reduced number of brokers; lower production cost; improved brand or corporate image; and improved customer service. Hodge and Pronk (2006), in their study, said that that investor who does not have professional expertise or online investment familiarity strongly affects the financial information they see in firm's quarterly reports.

## OBJECTIVE

- To identify and analyze the factors which influence investor's decision to invest online.

## METHODOLOGY

**The Study:** The study was an empirical study based on survey research.

**The Sample:** Random sampling technique is used to select 175 respondents who invests in online investment avenues. Out of total 175 responses floated and received via email, google docs and personal form filling 174 were found complete for conducting further analysis.

**Tools for Data Collection:** A self-structured questionnaire was distributed to the investors with three online investment such as Bank Fixed Deposits, Mutual Fund-Investment and Share Trading.

**Tools for Data Analysis:** The collected primary data was analyzed using factor analysis. The questionnaire consists of 22 attributes was filled by the respondents on a five-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). Exploratory factor analysis was used to identifying the factorial structure of online investment. Before applying the factorial analysis, Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were used for establishing whether the data were suitable for conducting factorial analysis.

## **RESULTS**

### **Reliability Test**

Reliability is an assessment of the degree of consistency between multiple measurements of a variable. The objective is to ensure that responses are not too varied across time periods so that a measurement taken at any point of time is reliable. Cronbach's alpha is a diagnostic measure and reliability coefficient assessing the consistency of entire scale. The generally agreed upon lower limit for Cronbach's alpha is 0.70. And Cronbach's Alpha of all 22 statements is 0.703 which is higher than acceptable level indicating a very good overall consistency (Table 1).

### **Factor Analysis**

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was found as 0.800 (Table 1). This KMO value of 0.800 is excellent since it exceeded the recommended value of 0.600. Exploratory Factor Analysis (EFA) was performed and only those factors were retained which have an Eigen value of more than 1 since they are considered significant. An Eigen value represents the amount of variance associated with the factor. The result was that there were total four factors, which explained for 57.61 percent of the total variance (Table 2).

## **DISCUSSION**

The study found first factor as 'Impulsive Investment' which explained 17.53 percent variation out of total variance. It is a major influencing factor that affects online investment decision. Despite of saving the intermediary cost, online investment helps in motivating the investors for investment with a small amount also, which not only increases their investment but also saves the money that can be spent on any shopping or for recreation and entertainment purpose (Table 3).

The second factor emerged out as 'Internet Competency' that explains 16.35 percent out of total variance. It is observed that now-a-days people are more technology and internet savvy. This knowledge help Investor's to explore investment portals in a better way and also this investment platform is easily understood by them without any pause and assistance of others (Table 3).

The third factor that explains 13.84 percent variation out of total variance is 'Convenience' because like any other online facility, online investment also saves investors from lots of paper work and documentation filling. With one click, investors can transact to start or stop down their investment at any time (Table 3).

The fourth factors is 'Security and Privacy' explaining 09.87 percent variation out of total variance. This factor is least influencing factor which says one is always cautious while making any kind of investment and this cautiousness increase might be due to online mode of investment because of year by year increase in number of online frauds. But investors were found to be convinced with security measures of investment portals and websites (Table 3).

## **CONCLUSION**

With the growth and development of investment companies the financial sector has given individual investor wide range of opportunities to invest. The individual's decision to invest is deeply influenced by variety of benefits an individual seeks for. Online investment provided an opportunity to invest with small amount without any hesitation and as per investor's convenience without worrying much about the process of investment and investment security. Online investment successfully converted people from money savers into investors. Online investment has made possible for investors to save more and generate more returns than offline mode of investments.

Also online investment motivated people to save and invest more rather than spending money on unnecessary shopping and helped in curbing this tendency of people. This study might be beneficial for investment houses as identified factors might affect their future policies and strategy formulation. Government may consider factors affecting online investment in the process of formulating legislation for investors.

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**ANNEXURES**

**Table 1: Case Processing Summary and Reliability Statistics**

		<b>N</b>	<b>%</b>
<b>Case</b>	<b>Valid</b>	174	100.0
	<b>Excluded</b>	0	.0
	<b>Total</b>	174	100.00

<b>Cronbach's Alpha</b>	<b>No. of Item</b>
.703	22

**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.800
Bartlett's Test of Sphericity	Approx. Chi-Square	1066.421
	Df	120
	Sig.	.000

**Table 2: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.195	32.706	32.706	7.195	32.706	32.706	3.858	17.536	17.536
2	2.621	11.915	44.621	2.621	11.915	44.621	3.599	16.357	33.893
3	1.578	7.175	51.796	1.578	7.175	51.796	3.045	13.842	47.735
4	1.279	5.815	57.611	1.279	5.815	57.611	2.173	9.876	57.611
5	1.110	5.044	62.655						
6	1.099	4.997	67.653						
7	.911	4.142	71.794						
8	.762	3.464	75.258						
9	.691	3.143	78.401						
10	.630	2.863	81.264						
11	.599	2.722	83.986						
12	.539	2.451	86.438						
13	.458	2.080	88.518						
14	.452	2.055	90.573						
15	.426	1.936	92.510						
16	.375	1.703	94.213						
17	.279	1.267	95.480						
18	.265	1.202	96.682						
19	.248	1.127	97.809						
20	.214	.971	98.780						
21	.142	.643	99.424						
22	.127	.576	100.000						

Extraction Method: Principal Component Analysis.

**Table 3: Factor Analysis**

<b>FACTORS</b>	<b>ITEMS</b>	<b>ITEM LOADS</b>	<b>FACTOR LOADS</b>	<b>% OF VARIANCE</b>
<b><u>Impulsive Investment</u></b>	Online investment motivates me to invest even in small denomination.	0.734	5.451	17.536
	Online investment saves my intermediary investment cost.	.664		
	I believe that investing online will help increase my knowledge and experience.	.659		
	I rely on online sources of information and my personal instincts while investing online.	.639		
	Online investment provide me real time monitoring over my investments.	.637		
	Investment decisions are entirely within my control through online mode.	.571		
	I have sufficient resources to invest in online investment avenues.	.570		
	Online investment portals help to generate more profit than offline methods.	.544		
	The cost for online investment transactions are very low.	.433		
<b><u>Internet competency</u></b>	I can easily operate the process of online investment.	.836	3.156	16.357
	I am familiar with the features of online investment portals.	.833		
	I can use online investment portal without any assistance from other experienced one.	.794		
	I have sufficient knowledge to use online investment portal.	.693		
<b><u>Convenience</u></b>	Online investment saves me from doing any paper work.	.880	2.666	13.842
	The speed of online investment transaction is very fast.	.625		
	Online investment is possible 24x7 from anywhere.	.663		
	I find online investment reliable and hassle free.	.498		
<b><u>Security and Privacy</u></b>	I find online investment portal secured.	.838	2.61	9.876
	Personal information sent via internet with regard to online investment is secured.	.683		
	I prefer to invest online as my friends and relatives are doing it.	.602		
	I find that security measure of online investment portals are satisfactory.	.490		

## AN EMPIRICAL STUDY OF CONSUMER ADOPTION OF MOBILE WALLETS

Harsha Dudhoria Surana\*, Raksha Thakur\*\*

*In today's era of technological advancement, smart phone has become an integral part of one's life. These smartphones, with the help of fast, cheap and accessible internet connections can now be used to transfer money or make payments, anywhere, anytime. These digital wallets or mobile wallets are slowly and gradually becoming the mainstream mode of online payment system. The study mainly focuses at studying the different types of mobile wallets, the factors affecting their adoption in India and the effect of few demographic variables on the factors so obtained.*

**Key Words:** Mobile Wallets, E-payments, Cashless Transactions.

### INTRODUCTION

The Government of India, with its demonetisation move introduced on November 8, 2016, took the first step in the direction of making India a cashless economy. Efficient and modern e-payment system act as a key enabler for driving growth and development of any economy. The main aims of this move were improving the effectiveness of monetary policy, managing inflation in the economy and maintaining stable price system. Major emphasis was given on using mobile wallets as a mode of transaction along with the traditional means of plastic money, net banking, etc.

Mobile wallets or digital wallets are products of the telecommunication advancements. The adoption of smartphone as an integral part of one's life, irrespective of age or socio-economic status, has led to the introduction of various mobile services and apps. These apps or services with the help a speedy internet prove out be drawing most out of these smartphones. A smartphone is no longer just a tool to talk, message or click pictures, it has also become an entertainment, social and payment tool. Due

to the development of various applications, people can not only transfer or receive money through their phone but can also store receipts, vouchers, coupons etc. These applications, due to their similarity with a traditional physical wallet, are also called as digital/mobile wallets. The concept of digital wallet is relatively new to Indian economy. Countries like United States of America, Japan, Sweden and South Korea have been using this tool for a long time now.

In India, there are majorly four types of mobile wallets. The first type is known as open wallets. These type of wallets allows one to not only buy goods and services, but also allows to transfer funds and withdraw cash at ATMs. e.g. SBI Buddy, M-Pesa by Vodafone, etc. The second type of wallets are known as semi-open wallets. These type of wallets allows one to transact only with the companies they have a contract with. Once loaded in the account one can't get money back and neither can withdraw it. For example Airtel Money. Thirdly there are semi-closed wallets. These types of wallets allows one to buy goods and services including financial services at listed locations but do not allow to redeem or withdraw

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money. For example Paytm, Freecharge, Mobikwik, etc. And lastly there are closed wallets. These types of wallets allows one to buy goods and services from a particular location but do not allow to redeem or withdraw money. Also the refunds here can only be used to make transactions at the same location. For example Bookmyshow, Makemytrip, Flipkart, etc.

## REVIEW OF LITERATURE

Tomi et al. (2007) in their research work concluded that contemporary mobile payment research is primarily affected by two factors namely, mobile payment technologies and consumer perspective of mobile payments. Exploring both these factors can result a win-win situation to the countries promoting cashless transactions as well as the companies providing the digital payment platform. Thilagavathy and Naga Santhi (2017) in their study opined that the country is gradually moving from cash centric to cashless economy and that e-payment system is slowly but steadily gaining popularity in the country like India.

Khan and Craig-Lees (2009) suggested that the perceptions towards the mobile wallets are majorly controlled by factors such as age, experiences and cultural values. They also pointed out that the customers possess the ability to process transactional information better, when they see and touch the currency/receipt/cheques. But in case of mobile payments, due to the lack of this sense of touch and sight, the customers at times choose not to use these mobile payments. Sardar (2016) concluded that only 15 percent of internet users opt for mobile wallets. So, the companies need to carry out marketing and advertising campaigns to expand their markets.

## OBJECTIVES

The objectives of this study are:

- To identify various factors affecting the adoption of mobile wallets
- To study the effect of gender and age of respondents on the various factors affecting the adoptions of mobile wallets.

## METHODOLOGY

**The Study:** It is exploratory in nature and based on survey method.

**The Sample:** The sample of the study constituted of 206 respondents selected from the city of Indore. The sampling was done using non probability convenience sampling.

**Tools for Data Collection:** For the study, a self-structured questionnaire was designed to develop a pilot survey. The respondents were given a 5-point Likert scale questionnaire ranging from Strongly Agree (5) to Strongly Disagree (1).

**Tools for Data Analysis:** The data was analysed and principal component method of factor analysis was performed using Statistical Packages for Social Science (SPSS). Also, one way ANOVA was applied to test the effect of selected demographics on various factors. The reliability of the scale were tested using Cronbach's alpha and the adequacy of the sample was tested using KMO and Bartlett's Test of adequacy.

## RESULTS AND DISCUSSION

Cronbach's alpha helps us to test the combine reliability of different variables measure on 5-point likert scale.. Usually, if the value of this coefficient is greater than or equal to 0.7, it is considered acceptable and the scale is considered reliable. As given in Table-1 (See Annexures), the Cronbach's alpha for the questionnaire is 0.879 and hence, it is reliable and can be used for the

analysis. Sample adequacy was evaluated using KMO and Bartlett's test. If the value of the KMO's measure of adequacy is close to 1, then the data so collected is considered suitable for applying factor analysis. Also if the significance value of Bartlett's test of sphericity is less than 0.05, then factor analysis is considered useful for the data. As given in the Table-2 (See Annexures), the values so obtained in the KMO and Bartlett's test signify that factor analysis can be applied to these data. After applying factor analysis, three factors were explored from the given 14 statements. These factors are tabularized with their item loadings and percentage of variance in Table-3 (See Annexures).

### **Factor 1: Convenience of Usage**

Convenience of usage mainly concerns with the ease of using a service or a product. Digital wallets usually offer a very smooth procedure of performing various types of transactions such as online shopping, gifting, splitting the bill, etc. Also for small value payments these wallets turn out to be a very handy and readily available platform of payment. This factor constituted of five items namely, 'Digital wallets are best for small value payments i.e. less than 20,000', 'Digital wallets are most helpful in everyday transactions like sending a gift, splitting a bill, etc.', 'Digital wallets help us to pay the exact amount without the hassle of arranging for change', 'Digital wallets help in convenient buying of products online' and 'Digital wallets are very convenient mode of payment as payments are made with a single touch'.

### **Factor 2: Reasonable and Conducive**

In this era, due to career obligations and commitments, people find it extremely difficult to stand in long queues and make the payment. So getting a one-step platform through these wallet applications, works as a boon. Digital wallets offer a user friendly interface, so that more and more people opt

for it. And to attract people, they offer various incentives in form of cashbacks, discounts, etc. Although these days, almost all forms of online payment instruments (credit cards, debit cards, net banking etc. ) charge a transaction fee and offer good deals in terms of discounts, cashbacks and complimentary coupons but digital wallets in particular offer less fees and more benefits. In lieu of the above discussion, this factor constituted of five items namely, 'Digital wallets have relatively less transaction fees', 'Digital wallets have better offers in terms of discounts and cashbacks', 'The reward point so earned in a transaction can be used in the next transaction', 'Digital wallets provide one step platform with options to pay electricity bills, telephone bills and even shop at a time' and 'Digital wallets are hassle free as you do not need to remember passwords for every transaction.'

### **Factor 3: Reliability and Accessibility**

Cyber theft is very common these days. So it becomes very important to curb it and yet provide excellent services to the customer. Not only cyber theft, but a lot of times transactions fail due to no or slow internet connection. Digital wallets help curb these thefts and at the same time ensure least failure of a transaction during the hours of slow internet. This last factor constituted of four items namely, 'Digital wallets are secured mode of transaction as there are very few chances of cyber theft', 'Digital wallets are safe as they restrict the exposure of our confidential bank details', 'Digital wallets maintain user's private information and do not share it with any vendor' and 'Digital wallets are easily accessible even during slow internet connection'.

### **Effect of Demographics on the factors determining the preference**

The demographic profile of the respondents is given below:

Demographic Profile	Number of Customers	Percentage
<b>Gender</b>		
Male	108	52.4
Female	98	47.6
<b>Age</b>		
18-25	124	60
25-35	75	36.5
35-45	5	2.4
45 and above	2	1.1

### Effect of Age on the factors so explored

For each factor, hypothesis was set to explore the significant difference among six different age groups for the identified factors. Table-4 (See Annexures) gives the result of one way ANOVA, applied to test the hypothesis.

**H<sub>01</sub>**: There is no significant effect of Age on the 'Reliability and Accessibility' factor affecting adoption of mobile wallets.

**H<sub>02</sub>**: There is no significant effect of Age on the 'Reasonable and Conducive' factor affecting adoption of mobile wallets.

**H<sub>03</sub>**: There is no significant effect of Age on the 'Convenience of Usage' factor affecting adoption of mobile wallets.

As given in the Table 4, the significance level for the factors, 'Reliability and Accessibility' and 'Reasonable and Conducive' is greater than 0.05 while it is less for the factor 'Convenience of Usage', thus it can be concluded that there is no significant difference found among the age groups for the two factors, 'reliability and accessibility', and 'reasonable and conducive'. But a significant difference is observed among the age groups for the factor 'convenience of usage'. Sardar (2016), in his paper established that there is no significant association between age of the respondents and their

usage of mobile wallets. The calculations performed in this study took forward the findings of Sardar's (2016) study and established that, though in general age doesn't have an association with the usage of mobile wallets, but the adoption of mobile wallets varies with age due to the convenience of usage offered by the mobile wallet.

### Effect of Gender on the factors so explored

For each factor, hypothesis was set to explore the significant difference between the factor between the two genders: females and males for the explored factors. Table 5 (See Annexures) gives the result of one way ANOVA, applied to test the hypothesis.

**H<sub>04</sub>**: There is no significant effect of Gender on the 'Reliability and Accessibility' factor affecting adoption of mobile wallets.

**H<sub>05</sub>**: There is no significant effect of Gender on the 'Reasonable and Conducive' factor affecting adoption of mobile wallets.

**H<sub>06</sub>**: There is no significant effect of Gender on the 'Convenience of Usage' factor affecting adoption of mobile wallets.

As given in the table, the significant values for all the factors are greater than 0.05, thus there is no significant difference found between the genders for the three factors. Sardar (2016), in his paper pointed out that there is no significance association exist between gender of respondents and usage of mobile wallets. On the same grounds this study also established that gender of the respondents doesn't play any role in the factors affecting the adoption of mobile wallets.

### CONCLUSION

Mobile wallets have gradually become an integral part of a payment system in the economy. Because of the wide reach of smartphones and economical internet service, the reach of these wallets have also

widened. This study revealed that the adoption of these wallets in the Indian domain is primarily based on three factors namely, 'convenience of usage', 'reasonable and conducive', and 'reliability and accessibility'. In the Indian market, a customer is attracted towards a service mainly for the offers and benefits it gives, its reach and the practical utility it offers. People are attracted towards these digital wallets, mainly because of its handy approach along with the monetary and security benefits that it offers.

The study also revealed that though the adoption of mobile wallets changed amongst different age groups due to the factor convenience of usage, the same relationship was not exhibited by other two factors over age. Also the study suggested that the adoption levels are not altered amongst different genders due to any of the factors. Hence it can be concluded that gender doesn't have an impact on the above mentioned factors for the adoption of mobile wallets. These conclusions give useful insights for the mobile wallet companies as the factors can be further explored and studied to expand their market. The companies could focus on making the interface more user friendly and convenient so that all the age group could eventually adopt this payment system. Not only the

companies, but as the Government of India moves towards a cashless economy, these factors can be generally taken care of by them also for the promotion of the same mobile wallets.

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## ANNEXURES

**Table-1 : Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.879	.884	14

**Table-2 : KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy,		.901
Bartlett's Test of Sphericity	Approx. Chi-Square	962.149
	df	91
	Sig.	.000

**Table-3: Analysis of Factors Affecting Adoption of Mobile Wallets**

Factor	Item	Item Load	Factor Load	% of Variance
Convenience of Usage	Digital wallets are best for small value payments i.e. less than 20,000	0.808	3.357	21.991
	Digital wallets are most helpful in everyday transactions like sending a gift, splitting a bill etc.	0.747		
	Digital wallets help us to pay the exact amount without the hassle of arranging for change	0.739		
	Digital Wallets help in convenient buying of products online	0.609		
	Digital wallets are very convenient mode of payment as payments are made with a single touch	0.454		
Reasonable and Conducive	Digital Wallets have relatively less transaction fees'	0.771	3.22	20.574
	Digital Wallets have better offers in terms of discounts and cashbacks	0.737		
	The reward point so earned in a transaction can be used in the next transaction	0.581		
	Digital Wallets are hassle free as you do not need to remember passwords for every transaction	0.551		
	Digital Wallets provide one step platform with options to pay electricity bills, telephone bills and even shop at a time.	0.58		
Reliability and Accessibility	Digital Wallets are secured mode of transaction as there are very few chances of cyber theft	0.811	2.782	16.831
	Digital wallets are safe as they restrict the exposure of our confidential bank details etc	0.745		
	Digital Wallets maintain user's private information and do not share it with any vendor	0.625		
	Digital Wallets are easily accessible even during slow internet connection	0.601		

**Table-4 : ANOVA Table for the Factors Explored and Different Age Groups**

		Sum of Squares	df	Mean Square	F	Sig.
Reliability and Accessibility	Between Groups	3.186	5	.637	.634	.674
	Within Groups	170.814	170	1.005		
	Total	174.000	175			
Convenience of Usage	Between Groups	12.872	5	2.574	2.696	.023
	Within Groups	162.353	170	.955		
	Total	175.224	175			
Reasonable and Conducive	Between Groups	8.680	5	1.736	1.727	.131
	Within Groups	170.862	170	1.005		
	Total	179.541	175			

**Table-5 : ANOVA Table for the Factors Explored and Gender**

		Sum of Squares	df	Mean Square	F	Sig.
Reliability and Accessibility	Between Groups	.134	1	.134	.135	.714
	Within Groups	173.866	174	.999		
	Total	174.000	175			
Convenience of Usage	Between Groups	3.208	1	3.208	3.245	.073
	Within Groups	172.016	174	.989		
	Total	175.224	175			
Reasonable and Conducive	Between Groups	2.488	1	2.488	2.445	.120
	Within Groups	177.053	174	1.018		
	Total	179.541	175			

## AN EMPIRICAL STUDY TO MEASURE THE EFFECT OF CORPORATE CREDIBILITY AND DEGREE OF INVOLVEMENT ON THE PURCHASE INTENTION WITH REFERENCE TO CAUSE RELATED MARKETING IN GUJARAT STATE

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*Firms are increasing day by day and gradually they are realizing the benefits they are getting through cause related marketing campaigns. Firms are adopting cause related marketing strategy to show their commitment to improve the quality of life of the society as a whole. This study tries to measure the effect of corporate credibility and degree of involvement on the purchase intention with reference to cause related marketing in Gujarat State. Single cross sectional research design adopted for the current study. Primary data was collected through survey method using structured questionnaire. Direct and indirect impact of the independent variables namely corporate credibility and degree of involvement measured on dependent variable namely purchase intention using structured equation model. Data analysis concludes that degree of involvement and corporate credibility has the positive and significant impact on the attitude towards the company who has engaged in the cause related marketing. Positive attitude has the positive impact on the purchase intention. Indirect impact of the degree of involvement and corporate credibility on purchase intention is more significant compare to direct impact. This research provides the useful implications to society by providing more detailed insight in to the concept of the cause related marketing with in light of corporate credibility and degree of involvement. This research is useful to companies and marketers to formulate their strategies related to the CSR and CRM. A few research has been carried out in western part of the India i.e., Gujarat state. This research will add more knowledge and information in the limited available pool which provide new direction to academics, corporate world and to the society as whole.*

**Key Words:** Cause Related Marketing, Corporate Credibility, Degree of Involvement, Purchase Intention.

### INTRODUCTION

Over the past decade, economists have witnessed the gradual development of a stream of research into how corporate social responsibility may help a firm and its products and services to consumers (Maignan, 2001). This research trend has flourished as the marketing potential of corporate responsibility initiatives, including corporate environmentalism, corporate citizenship, and corporate sustainability, (Drumwright, 1994; Lee, 2009; Menon and Menon, 1997). Corporate Social Responsibility (CSR) initiatives had become increasingly popular among American

corporations. A common form of such activity, referred to as Cause Related marketing (CRM), involves a company's promise to donate a certain amount of money to a nonprofit organization or a social cause when customers purchase its products/services.

Companies are focusing on brand revitalization by attaching a brand with ethical causes, in addition to that price differentiation, short product life cycle, diversity in promotion tools are the tools which forces brands to attach a brand with cause. Cause related marketing helps brands to differentiate themselves from those of

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competitors and it is helpful in brand positioning. Cause related marketing have four development stages that is sales phase (Short term- Sales Promotion and fund raising), Customer loyalty phase (Middle to long term- Customer Tie up), Branding phase (Long term-Cause as a brand identity) and Social responsibility phase (Long term- to built relationship with stakeholders) (Meffert and Holzberg, 2009).

Cause related marketing is different from social marketing. Cause related marketing enhances a market position of business while social marketing grabs the attention to the social issue without any advertisement. Cause related marketing is not a feel good exercise but it is an attempt to generate resources for specific concerns (Berglind and Nakata, 2005).

When organizations pursue value creation by leveraging the gains in reputation and legitimacy that they achieve through cause-related marketing, it could improve consumer behavior, attract talented employees, and have a positive effect on the organizations' financial performance (Carroll and Shabana 2010; Kurucz et al. 2008). Prior literature suggested that because of its positive effect on corporate image (File and Prince, 1998; Gupta and Pirsch, 2006), the fit between an organization and a cause, influences the success of a cause-related marketing campaign. The positive effects of cause involvement for organizations appear to result from increasing consumers' identification with the organization (Lichtenstein et al. 2004; Sen and Bhattacharya 2001) and consumers' personal support of the cause likely moderates this effect (Sen and Bhattacharya, 2001).

This research study starts with the in-depth literature review on the cause related marketing and its relationship with corporate credibility and purchase intention. It also discusses the relationship between degree of involvement and purchase intention with

reference to cause related marketing. Research model has been developed on the basis of the literature which measures the direct and indirect effect of the corporate credibility and degree of involvement on the purchase intention.

## **REVIEW OF LITERATURE**

Purchase intention is a tendency of an individual to have reutilized response behavior for a specific brand which is about higher brand loyalty which in long term resists a customer to switch to another brand (Yoo et al., 2000). In simple words, it is self instruction of a consumer to purchase a specific brand. It is also known as purchase related action which is a final buyer response step (Rossiter and Percy, 1998). The strength of the relationship between consumer's attitude towards different recall methodologies and purchase intention can be measured through structural equation modeling. Voluntary recalls have positive impact on loyalty of the consumer, producer's image and purchase intentions (Nizar and Frank, 2009). Behavioral intentions are functions of attitudes along with subjective norms. Theory of reasoned action stated that a belief underlying a person's attitude and subjective norms determines purchase intention and buying behavior (Kashyap, 2008).

Corporate brand credibility refers to the credibility of a company's brand as a signal, which is the extent to which consumers believe in the company's trustworthiness and expertise (Erdem et al. 2002). Brands can take on symbolic meaning that helps customers communicate to others what they stand for, what they value, and who they want to be (Chaplin and John, 2005). Thus, companies use various marketing mix elements to signal their product, services, and other information. The findings of previous research suggested that consumers find the identity of a company more attractive and trustworthy when it is similar to their own

set of beliefs and preferences (Dutton et al, 1994; Schneider et. al., 1995).

According to Brammer and Milington (2006), the consumer will move on to another brand if another brand has the same price and quality. Consumers also tend to buy the products which support certain social programs in their advertisement campaign. Thus, the company decides on the social issues that potentially attract the consumers and hope it will increase consumer preference, product sale, and brand value (Webb and Mohr, 1998). Positive customer preference leads to higher goodwill of brand. Consumer's preference is mainly affected by high involvement of customers with sponsored activity (Meenaghan, 2001). Products can be mainly classified as low involvement and high involvement products. There is higher risk involved in the purchase of high involvement product but brand attitude matters a lot for the product where low involvement product is to be purchased. In case of purchasing low involvement product an explicit purchase intention is needed (Rossiter and Percy, 1998).

If consumer feels the need of the product, then they like to purchase the product according to their need and alliance. However, the brand alliance attitude is not direct, and there is relationship between cause involvement and cause. Cause involvement also creates an impact on consumer's attitude towards the product and brand motivations. Cause involvement has a positive effect on both altruistic and profit-based motivations. Consumers who are more involved with the cause are more likely to perceive that the brand had altruistic motivations for engaging in the alliance are in line with the notion that consumers, in an effort to maintain congruity (Osgood and Tannenbaum, 1955).

The brand's purpose of forming the alliance is aligned with cause's mission of helping

others. However, consumers who are more involved with the cause are more likely to perceive that the brand had profit-based motivations for engaging in the alliance. Consumers may not see altruistic and profit-based motivations as opposite viewpoints. Perceived brand motivations partially mediate the relationship between cause involvement and cause – brand alliance attitude. Cause – brand alliance attitude positively influences purchase intentions (Myers et al., 2013).

Level of involvement influences an intention to purchase. Consumers having high level of cause involvement have a negative response to the negatively framed messages and vice versa (Bester and Jere, 2012). Less involved consumers can develop positive attitudes towards CRM campaigns, even if they fail to find them personally relevant. Furthermore, a high fit between the brand and the cause determines more positive attitudes on behalf of more involved consumers, compared to those less involved with the cause (Vlad, 2011). The cause involvement has a positive relation with purchase decision of consumer. Higher cause involvement leads to change in attitude (Aggarwal and Singh, 2009). The strength of the relationship between consumer's attitude towards different recall methods and purchase intention can be measured through structural equation modeling (SEM). Voluntary recalls have a positive impact on consumer's loyalty, producer's image and purchase intentions (Nizar and Frank, 2009).

Past research clearly indicated that corporate credibility and degree of involvement create the attitude towards company which creates the purchase intention. This research thus measures the direct indirect effect of corporate credibility and degree of involvement on the purchase intention.

## FMCG Sector in India

FMCG (Fast Moving Consumer Goods) Sector can be considered as a very important contributor to India's GDP. The Indian FMCG sector is the 4<sup>th</sup> largest sector in the economy. FMCG sector has a market size of US \$49 billion (IBEF, 2016). FMCG sector consists of unique features such as intense heavy competition, low per capita Income, low operating cost, effective and well established distribution network in organized and unorganized segments (Srinivasu, 2014).

In addition to that rising incomes, growing awareness, easier access, changing lifestyles, growing young population and brand consciousness are key drivers for growing demand of FMCG sector. The FMCG sector has shown a tremendous growth in a last decade. Up to 100 percent investment approval in foreign equity of single brand retail and 51 percent in multi brand retail can be considered as a great policy support to FMCG sector. In addition to that another initiative is direct cash transfer subsidies and food security bill that has reached around 40 percent households of India. Minimum capitalization for the foreign FMCG companies to invest in India is US \$ 100 million. According to McKinsey Global Institute (MGI), if FMCG sector will be growing in the same high growth rate, than India will become fifth largest consumer market by 2025. Currently India is on the 12th rank. Because of heterogeneity and wide diversity, India is considered as a major destination by global and local players to target untapped potential areas.

## Research gap

In the FMCG sector in India, cause related marketing is considered as the most important tool where there is a commercial tie-up between business and nonprofit entity to market the product or service by linking it to a social cause or issue for a mutual benefit.

It is necessary for the marketers, companies and charity organization to target the campaigns based on corporate credibility and degree of involvement as they are the influencing factors on the purchase intention. Because of research gap with reference to Gujarat, there is a need to study the research topic.

## METHODOLOGY

**The Study:** Single cross sectional descriptive research design method was used for this study. Non-probability convenience sampling technique was chosen for this study.

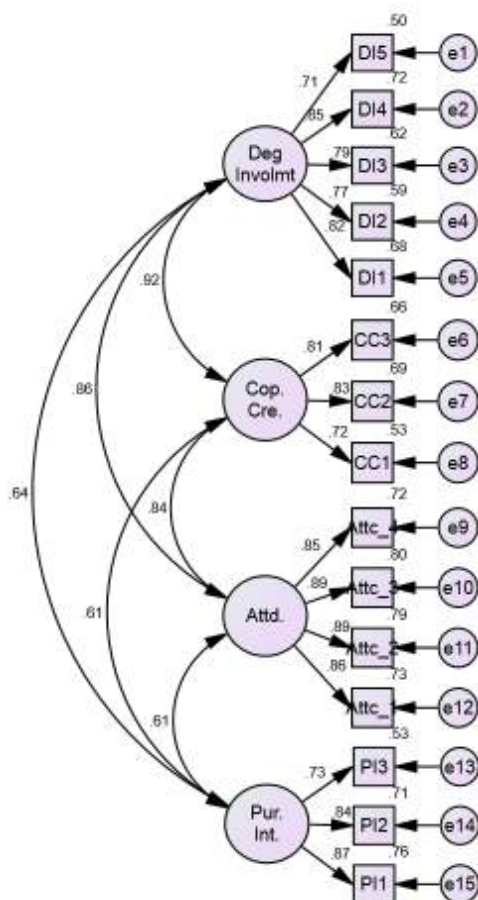
**The Sample:** The consumers who are aware with the term Cause Related Marketing were considered as sample for this study. Sample unit is customers (specifically young adults-age group of 18 to 35) who are purchasers of the personal care products. Sample size was 633 individuals.

**Tools for Data Collection:** Data were collected from primary and secondary sources. To get an insight into the research area to develop the hypothesis, the information was collected from various books, journals, and websites and research projects (Table 1). Structured questionnaire was administered on respondents to get information on consumer perceptions towards Cause Related Marketing.

The research instrument is structured questionnaire to know the effect of corporate credibility and degree of involvement on consumer purchase intention amongst young adults in Gujarat. The questionnaire has only closed ended questions. The five point Likert scale and seven point Likert scale is used to measure the effect of corporate credibility and degree of involvement. Likert scale is a type of itemized scale which is non comparative scaling technique. Questionnaire is prepared using Likert scale.

**DATA ANALYSIS AND RESULTS**

**Measurement Model:** The constructs were subjected to Confirmatory Factor Analysis (CFA) to verify that the manifest variables load upon the proposed constructs and are indeed indicative of these constructs. The combination of CFA and construct validity assessments allows the researcher to evaluate the quality of their measures within a measurement model prior to testing the structural model. Maximum likelihood estimation procedures are used to estimate the parameter of the full measurement of the model. It consists of the four latent variables and 15 indicators. First set of five indicators measured the latent variable called degree of involvement. Next set of three indicators converge in to corporate credibility. Attitude towards the company measured through four indicators and last three indicators are used to measure the purchase intention.



**Figure 1: Measurement Model (CFA)**

**Reliability and Validity**

It is important to find out internal constituency of the measurement prior to further analysis. Cronbach’s alpha coefficient of reliability can be used to find out the reliability of the scale. Inter item correlation and Item to total correlation is also used to find out how the item is internally correlated and how it is correlated with the other items. According to Nunnally (1978), Cronbach’s alpha value more than 0.70 indicate good level of internal consistency. Here, reliability coefficients are found to be more than the standard value of 0.70 (Table-3) which provides the good construct reliabilities for the constructed scales.

For the evaluation of the reflective measurement model, outer loading, average variance extracted and composite reliability plays most important role. Outer loading should be more than 0.7, AVE should be greater than or equal to 0.5 and Composite Reliability should be greater than 0.7. Table-4 shows the quality measurement for the model. Outer loading, AVE, composite reliability provides the good model fit as all the criteria are above the standard cut off. If the variable’s square root AVE value is higher than the estimated correlation between it and another variable, then there is evidence to support an acceptable degree of Discriminant validity between these variables (Table-5). The overall results from comparing square root AVE estimates to their corresponding correlation estimates are indicative of Discriminant validity among these variables. Discriminant Validity test shows how much variance is in the indicators that are able to explain variance in the construct. As, square root of AVE is greater than Correlation, the model is having sound discriminant validity.

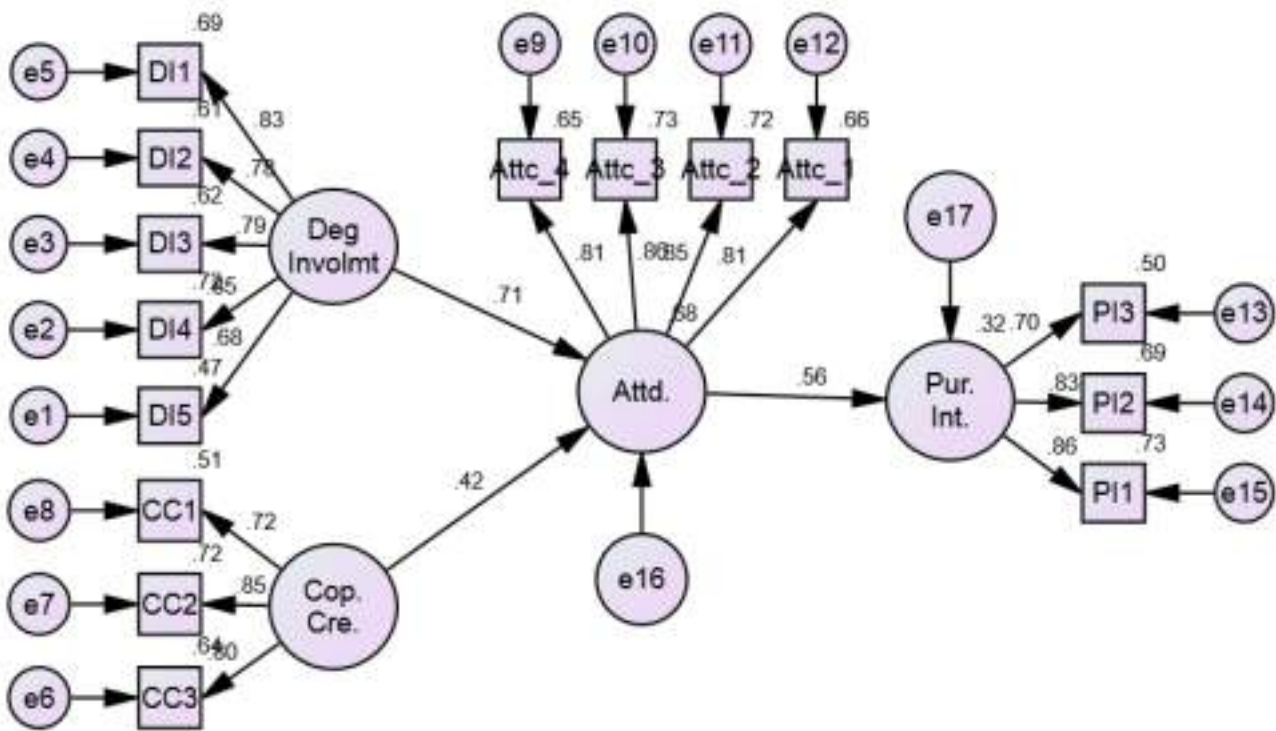
Table-6 reports that the overall chi-square value which is 241.56 with p value 0.000, which is lower than the significant level of 0.05 which indicates that the measurement model is poor fit with the collected data.



Though, chi-square indicates the poor fit of the data but researchers have concluded that when sample size exceeds 200, chi-square automatically increases and hence, not considered as a main inferential parameter. In such cases, other fit indexes are taken into consideration rather than the chi-square value. Value of 02 for CMIN/DF indicates excellent fit and value of 05 is also acceptable. Here, CMIN/DF is 2.876 which indicate excellent model fit. RMSEA is a good indicator of the model fit. Ideal value of the

root mean square error (RMSEA) is 0.05 and below and value less than 0.08 also considered as acceptable. Value of the RMSEA is 0.054 which indicates the good fit. RMSR also provide the evidence for the good fit. The standard value of each of CFI, NFI, IFI and TLI is 0.9. Nearer to 1 indicates excellent fit. Values of these parameters in this research are 0.977, 0.966, 0.977 and 0.972 respectively which provides the evidence for the excellent fit.

**Path Analysis**



**Figure 2 Path Analysis**

Figure-2 show the impact of the independent variables on the dependent variables. Degree of involvement has the positive impact on the attitude towards the company. Standard beta weight of impact of degree of involvement on the attitude towards the company is 0.71 which indicate that degree of involvement has the significant impact on the attitude towards the company. Corporate

credibility also has the positive impact on the attitude of the company with the standardized beta weight of 0.42. Corporate credibility has the positive and moderate influence on the attitude towards the company. Attitude towards the company has positive impact on the purchase intention with the standardized beta weight of 0.56. Attitude towards the company has the



moderate impact on the purchase intention. Indirect effect of the corporate credibility and degree of involvement is shown in the table 7 which indicates that corporate credibility and degree of involvement have low impact directly on the purchase intention compare to influence through creating positive attitude towards the company.

## CONCLUSION

The main objective of the study was to find out the effect of the corporate credibility and degree of involvement on the purchase intention with reference to cause related marketing in the Gujarat. This study concludes that degree of involvement has the positive and significant impact on the attitude towards the company who engaged in the cause which is inline of the previous research (Meenaghan, 2001' Myers et al., 2013 and Rossiter and Percy, 1998). Corporate credibility also has the positive impact on the Attitude towards the company who engaged in the cause. Attitude towards the company has the positive impact on the purchase intention. This study also concludes that indirect effect of degree of involvement and corporate credibility is stronger compare to the direct effect.

## IMPLICATIONS

The present study has many implications for marketers and companies. From this study, it can be said that corporate credibility and degree of involvement play important role in the positive purchase intention creation through cause related marketing. Companies should decide the cause which creates the higher degree of involvement considering the fact that degree of involvement makes significant contribution to improve the consumer attitude towards company. Thus, marketers can target cause which generates the higher amount of degree of involvement. Corporate with higher credibility has the higher chance that generate the more positive attitude towards

the company through the cause related marketing which ultimately leads the positive purchase intention. Mangers are supposed to focus on the corporate credibility as it is important in the successful cause related marketing. The key contribution of the study is that degree of involvement and corporate credibility play significant role in creation of the attitude comparing to purchase intention. Over period of time, positive attitude creates the positive purchase intention.

## LIMITATIONS AND FURTHER SCOPE OF THE STUDY

The study is limited to specific city and specific sample size. Cause related marketing has many variables which play important role but this study focus specifically on two variables. future study can be done including many other variables like donation size, brand equity, loyalty, etc. Demographic variables also can be included as study variables and comparative analysis can be done between different cities and state also.

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## ANNEXURES

Table 1:

Sr. No	Name of Construct	Author Detail
1	Corporate Credibility	Newell, Guld and Smith, 2001
2	Degree of Involvement	1. Maheswaran and Joan, 1990 2. Grau and Folse, 2000
3	Attitude towards the company involved in cause related marketing	1. Baker and Churchill, 1977 2. Spears and Singh, 2004 3. Myers and Kwon, 2013
4	Purchase Intention	1. Cui et. al., 2004 2. Putervu and Lord, 1994 3. Lii and Lee, 2012

Table 2: Respondent Profile

No	Variables	Categories	Frequency (Total-633)	Percentage (Total-100)
1	Gender	Male	366	57.82
		Female	267	42.18
2	Age (in years)	18-23	198	31.28
		24-29	229	36.18
		30-35	206	32.54
3	Marital Status	Married	375	59.24
		Unmarried	258	40.76
4	Education	No formal education	14	2.21
		Upto higher secondary	52	8.21
		Diploma	61	9.64
		Graduation	286	45.18
		Post graduation and above	220	34.76
5	Occupation	Student	141	22.27
		Home maker	37	5.85
		Self Employed	210	33.18
		Salaried	245	38.70
6	Annual Income	Below 200000	167	26.38
		200001 – 400000	248	39.18
		400001 – 600000	115	18.17
		600001- 800000	41	6.48
		800001 – 1000000	38	6.00
		1000001 and above	24	3.79

7	Members in Household	1-2	20	3.16
		3-4	287	45.34
		5-6	278	43.92
		More than 6	48	7.58

**Table 3: Reliability Coefficients\***

Scale	DI	CC	Attd.	PI
Cronbach's alpha	0.883	0.829	0.926	0.851

**Table 4: Factor Loading, AVE and CR**

Factor	Indicators	Factor Loading	AVE	CR
Degree of Involvement	DI5	0.708	0.622	0.891
	DI4	0.848		
	DI3	0.79		
	DI2	0.767		
	DI1	0.822		
Corporate Credibility	CC3	0.812	0.626	0.833
	CC2	0.832		
	CC1	0.725		
Attitude towards the company	Attc_4	0.851	0.761	0.927
	Attc_3	0.894		
	Attc_2	0.887		
	Attc_1	0.857		
Purchase Intention	PI3	0.725	0.664	0.855
	PI2	0.843		
	PI1	0.87		

**Table 5: Discriminant Validity**

	<b>Attitude towards the company</b>	<b>Degree of Involvement</b>	<b>Corporate Credibility</b>	<b>Purchase Intention</b>
<b>Attitude towards the company</b>	<b>0.872</b>			
<b>Degree of Involvement</b>	0.763	<b>0.788</b>		
<b>Corporate Credibility</b>	0.738	0.716	<b>0.791</b>	
<b>Purchase Intention</b>	0.607	0.639	0.609	<b>0.815</b>

**Table 6: Model Fit Criteria**

<b>Chi-square</b>	<b>CMIN/DF</b>	<b>RMSEA</b>	<b>RMSR</b>	<b>NFI</b>	<b>CFI</b>	<b>TLI</b>	<b>IFI</b>
241.56	2.876	0.054	0.046	0.966	0.977	0.972	0.977

**Table 7: Direct and Indirect Effect**

<b>Standardized Direct Effects</b>	<b>Weight</b>
Attd <-- CC	0.418
Attd <-- DI	0.711
PI <--- Attd.	0.562
<b>Standardized Indirect Effects</b>	<b>Weight</b>
CC <--- PI	0.235
DI <--- PI	0.400

## AN INSIGHT INTO THE STAGE OF GLOBAL HUMAN DEVELOPMENT USING HUMAN DEVELOPMENT INDICES

Varun Sarda\*, Yamini Karmarkar\*\*, Neha Lakhotia\*\*\*, Shailshri Sharma\*

*The complex nature of the World economies has led to a connectivity spanning across borders. The challenges being faced by the World can be solved by catering to urbanization and the creation of jobs. The approach of the United Nations Development Programme has laid emphasis on giving people more freedom and opportunities rather than focusing only on the concept of economic growth. The UNDP has captured the progress of the human race combining aspects like health, education and income and came up with the HDI (Human Development Index). The present study analyses the effectiveness of the HDI in milieu of the stage of the human developments taking place globally. A model of human development index, which was got by means of Correlation Analysis of a number of quantitative indicators of human development, is reflected on using Regression Analysis. The results of the study show that the main components of the model include Life Expectancy at Birth, Expected years of schooling, Mean years of schooling, and Gross National Income (per capita) are significant and directly affect the HDI.*

**Keywords:** HDI, Global, Financial Health.

### INTRODUCTION

The global population is facing a lot of issues in terms of creation of jobs, making a pollution free country and improving quality of life. The extent of these issues is global and runs across borders and environmental areas. The challenges can only be solved taking into consideration the approaches like complexity and innovation. The human development approach by the UNDP has laid emphasis on the freedom and opportunities with people rather than the economic growth alone. As a result it has even led to inspiring and informing the policies across the World.

### Human Development Indices and Indicators

The Human Development Indices and Indicators gives an overview of the state of development and progress being seen by the World taking into account the multiple human development dimensions of all

concerned nations. The data and its analysis are at the heart of the paradigm. The HDI by the UNDP has captured the human progress, combining information on people's health, education and income in one figure. It has emerged as a reliable tool of excellence and a good platform towards analyzing the debates on National priorities.

There is more to just the rosy picture of the HDI, which is often left unsaid. In spite of the overall progress there are many conditions of poverty and inequality. Also, environmental concerns and conflicts too need to be curtailed as they undercut the development for the future generations. These things decrease the value of HDI and this has led to a very pressing situation for the countries which are in the low and the medium development categories. One of the biggest barriers towards the human development is the gender inequality with the HDI for women being six percent lower than HDI for men. It could take more than

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200 years to close the economic gender gap. Conflicts too are a serious cause and a matter of concern since it threatens the human life and affects adversely the progress. It is a serious matter and takes a lot of time to come back to normal. Environmental concerns too need to be carefully sought as it poses threats to mankind in the form of a change in the climate, decline in biodiversity and depletion of land and water resources.

### **RATIONALE**

Amidst all the evidences being provided about the health and state of an economy every now and then, the policy makers seek to capture important information in all possible forms making use of indices, indicators and statistics. This is essential so as to provide a larger picture of not just the economic but the social conditions prevalent in a country too. These indicators then help in giving solutions to the bigger issues of human development and advancement. The World Bank's Sustainable Development Goals ensure that new indicators be used for voicing the opinion of people and communities and assessing the ways in which communities are progressing.

### **LITERATURE REVIEW**

Sagar and Nagam (1998) have assessed that to what an extent the Human development reports published by UNDP have kept their own conceptual framework up to the mark. They found out that the reports have gone away from their vision and the index has not been able to include the spirit of the planet it tries to depict. Noorbakhsh (1998) has examined the components and structures of the human development index and evaluated and criticized the Index in the literature. It has also been tried to find out whether the indices developed on the basis of human development index have the anticipated properties of an index. Arcelus, Sharma, and Srinivasan (2005) have pointed out that the difference in the efficiency of

utilization of resources is not evident in the Human Development Index. Their paper has highlighted the same in the study. It tries to put together welfare economics and production economics.

### **HUMAN DEVELOPMENT REPORT (HDR) BY THE UNDP**

In order to make advancement in the human development, the state of global human development is a premier vehicle to know the outcomes. Way back in 1990 the premise of assessing the development was considered as not only through the monetary aspect but also through the achievements in health, education and other social aspects. This was path-breaking as it dethroned income as the only indicator of measuring the development or the progress of a country. In 2010 three other indices were launched to assess the poverty, inequality and gender empowerment through human development dimensions. These were the Multidimensional Poverty Index (MPI), the Inequality-adjusted Human Development Index (IHDI) and the Gender Inequality Index (GII). Then in 2014, the Gender Development Index (GDI) was introduced.

Ever since the launch of the first HDR there have been numerous challenges to the human development like inequality and sustainability. Data availability is also expanding and new opportunities in terms of the measurement and possibility for partnerships have helped in strengthening the analysis and relevance of the future HDRs. The Human Development Indices and Indicators: 2018 provide a brief overview of the status of human development and is released with an aim of ensuring consistency in the reporting of the key indicators of human development and statistics. It includes a full report of the human development composite indices across various dimensions. It also includes indicators like quality of human development, life-course gender gaps,

women's empowerment, environmental sustainability and socioeconomic sustainability.

### **TRENDS IN THE HUMAN DEVELOPMENT INDEX**

The HDI for 2018 provides figures for 189 countries using their data of 2017. Out of all 189 countries, 59 countries are in very high human development, 53 are in high human development, 39 in medium and 38 in low human development. The largest increases in the HDI rank were seen for Ireland between a period of 2012 to 2017 as it moved up 13 places. Also, Botswana, the Dominican Republic and Turkey saw an increase by eight places. Similarly, the largest declines were seen for Syrian Arab Republic which came down by 27 places, a fall of 26 places was seen in Libya and Yemen too saw a fall of 20 places.

**The Table-2** above reveals an increase in the HDI values but there is no uniformity in this increase. There has been a decline in the growth of the HDI in few regions. The reasons behind the same being the global economic crisis of 2008 and a limit to the life expectancy, years of schooling and rates of enrollment as it cannot grow for an indefinite period of time. Furthermore, income too after a point slows to grow as economies tend to mature. Countries in the Eastern Europe and Central Asia saw a decline in the HDI values attributing to the collapse of the Soviet Union to military conflict, hyperinflation, etc. Regions in the Sub Saharan Africa witnessed the losses due to HIV/AIDS epidemic which affected adversely and caused the life expectancy to drop dramatically.

Recently, few countries had setbacks and challenges as conflicts emerged. Due to the violent conflict in Libya, Syrian Arab Republic and Yemen there was a fall in the HDI values and ranks. Another aspect is for the countries which are linked together in one or the other way and get affected by the spillovers resulting from the conflict like Lebanon. A

lower life expectancy also tends to affect the human development in the countries. These setbacks can be very severe as at times it erases the gains of many years in just a little period of time.

### **INEQUALITIES IN HUMAN DEVELOPMENT: A CHALLENGE TO PROGRESS**

One of the main challenges in the development of human beings is the inequalities in income, education, health, access to technology and exposure to shocks. The gaps reflect the unequal opportunity in access to health, employment, credit and natural resources and are dangerous too. Inequality results in a lack of social cohesion and the quality of policies can turn the progress of human development slow. The average loss in the value of global HDI due to inequality is about 20 percent. The inequality resulting from income is the major contributor towards the overall inequality, followed by education and life expectancy. Countries in high human development group lose less from inequality than countries in lower groups.

### **A MOVE FROM QUANTITY TO QUALITY**

The assessment of human development should be done not in terms of quantity but also in terms of quality. Like were the schooling years enjoyable? Has school imparted knowledge or students merely attended the school, what skills comprise of a meaningful life? Is the work environment safe enough? Is over stressing on job killing one's creativity? and other questions like these. In terms of human development a true progress can only be witnessed in terms of ensuring quality and this quality can be defined in terms of education, health, etc.

### **Quality of Health**

An increase alone in the expectancy of life does not ensure a life well spent or lived healthily. The measures of life quality can be



divided into input and output indicators. Input indicators mean the physicians in a country, number of hospital beds per 10000 people, etc. in high, medium and low human development countries. A look at the output indicators like healthy life expectancy gives information on whether the years lived are expected to be in good health and lost health expectancy which is the relative difference between life expectancy and healthy life expectancy expressed as the percentage of life expectancy at birth.

The expectancy of healthy life is 12 percent lower than the overall life expectancy for all regions and human development goals. It can be inferred from this that people tend to spend 88 percent of their life in good health but face challenges in their last years. The disparity is huge across countries and human development groups. The healthy life expectancy is 69.9 years in very high human development countries but 53.3 years in low human development countries.

### **Quality of Education**

There is impressive progress which can be seen in the quantity of schooling. In 1990 the global adult population showed the mean years of schooling as 5.8 and it increased to 8.4 in 2017. In today's scenario the school age children can expect to be in the school for 3.4 more years than those in 1990. Anyhow, in spite of the figures there should be an emphasis on ensuring that the time spent in schooling converts into improved capabilities. To improve the quality of education the teachers too need to be trained accordingly. Though an average of 76 percent teachers in low and medium human development countries are trained to teach, there are wide variations. In the case of few countries less than 30 percent of the teachers are trained. Like in the case of Madagascar where only 15 percent, Kyrgyzstan where 21 percent, Sao Tome and Principe where 27 percent and Vanuatu where 28 percent teachers are trained. The availability of

communications technology has far reaching implications for the quality of education. However, it is not easy to modernize the schools as it requires substantial investments which are a challenge in most of the developing regions.

### **Environmental Degradation**

The decline in biodiversity and the degradation of the human environment has led to the decline in food and water supplies and loss of livelihoods. These crises threaten the human development of the current and future generations. The approaches change with different levels of human development. The countries with high human development are the biggest contributors to the climate change with an average carbon dioxide emission per capita of 10.7 tonnes in comparison to 0.3 tonne in low human development countries. There is no uniform rule of the same and can vary according to the country. Qatar has the highest carbon dioxide emissions per capita releasing more than 45 tonnes per person while on the other hand Uruguay released only 2 tonnes per person. Small Island developing Nations are the most vulnerable to climate change. Deforestation also has to be curbed as degradation in land reserves further reduces the quantity and the quality of freshwater. Even the waste water should be treated properly as contaminated water further has an adverse effect on the health, employment and gender inequality.

### **PROPOSED MODEL OF REGRESSION**

The focus is on the components of Human Development Index in this article. The calculations include the general economic and social indicators namely Life expectancy at birth, Expected years of schooling, Mean years of schooling, Gross National Income (per capita). Our objective is to present a model of estimation of human capital. In order to attain this objective, the statistical method of regression analysis is used.

## DATA

The data of Human Development Index and its components were taken for the year 2017 from United Nations Development Programme – Human Development Reports. The correlation coefficients of factors Index under given below

Index	Correlation Coefficient
HDI	1
Life Expectancy at Birth	0.910
Expected years of schooling	0.904
Mean years of schooling	0.911
Gross National Income (per capita)	0.751

## EMPIRICAL RESULTS

All the factors could be included in the model due to a high value of correlation coefficient. All the factors considered are highly correlated with the dependent variable which indicates the viability of their addition in the model. Thus the obtained correlation coefficients are greater than 0.7 therefore it indicates a strong degree of connection. Thus, the following equation is used for regression analysis

$$y = \alpha + \beta_1.x_1 + \beta_2.x_2 + \beta_3.x_3 + \beta_4.x_4$$

Where,

- y = Human Development Index
- x1 = Life Expectancy at Birth
- x2 = Expected years of schooling
- x3 = Mean years of schooling
- x4 = Gross National Income (per capita)

The result of multiple regression analysis is given in Table 1.

From the above analysis it was found that all the independent variables were significant at five percent level of significance as their P-values were less than 0.05. The contribution was maximum for Mean years of schooling variable and minimum for Gross National Income. As the above results also show that the coefficient of determination in the model which is represented by  $R^2$  equals 0.973512965, which is an indication that the model has an outstanding descriptive ability. The high value of F-statistic equal to 1690.69 suggests that the model is significant as the F-statistic is greater than F-Critical Value (3.48). Thus the model can be used to further study the relationships between variables and the results obtained by using the model are robust.

## CONCLUSION

The following conclusions can be made from the trends seen in the human development indices and indicators.

There is an increase in the average life span of people, education levels and people have a greater access to goods and services. Even in the countries with low human development the development has increased significantly but the quality of human development reveals large deficits. It is not important to just live a life but to enjoy it also. Being in school for a long time is not important, the focus should be on shifting towards quality of human development. The situations of crisis can reverse the situation and can put countries into conflict. These challenges can show HDI losses and it can be felt for generations. The situation of vulnerability and conflict should be worked upon in order to reduce the uncertainties and move up to a sustained level of progress.

The IHDI and the disaggregated assessments reveal inequalities across the human dimensions. High inequality can further pose a challenge to the sustenance of future progress in human development. One of the greatest barriers to the progress of human

development is the disparity between men and women and it needs to be worked out. Women have lower HDI than men and hence face empowerment issues throughout their life. Environmental issues too need to be addressed in a proper manner. The proposed regression model of the components of the human development index across the countries is valid and reliable. But still it is mandatory to consider the process of calculation cautiously in order to keep the economic sense in the results of the model. All the four components namely Life Expectancy at Birth, Expected years of schooling, Mean years of schooling, and Gross National Income (per capita) are significant and directly affect the HDI.

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Table - 1

<b>Regression Statistics</b>										
Multiple R	0.986667606									
R Square	0.973512965									
Adjusted R Square	0.97293716									
Standard Error	0.025133281									
Observations	189									
<b>ANOVA</b>										
	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	<i>Lower 95 percent</i>	<i>Upper 95 percent</i>	<i>Lower 95.0 percent</i>	<i>Upper 95.0 percent</i>	
Regression	4	4.271934637	1.067983659	1690.69874	0.000000000					
Residual	184	0.116229455	0.000631682							
Total	188	4.388164092								
<b>Coefficients</b>										
	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95 percent</i>	<i>Upper 95 percent</i>	<i>Lower 95.0 percent</i>	<i>Upper 95.0 percent</i>			
Intercept	-0.10988733	0.024052085	4.568723575	0.000008972	0.157340658	-0.06243399	-0.06243399	-0.15734066	-0.06243399	
X Variable 1	0.006526942	0.000443894	14.70384062	0.000000000	0.005651166	0.007402717	0.007402717	0.005651166	0.007402717	
X Variable 2	0.013546661	0.001211345	11.18316007	0.000000000	0.01115675	0.015936572	0.015936572	0.01115675	0.015936572	
X Variable 3	0.016916154	0.001096505	15.42733888	0.000000000	0.014752815	0.019079493	0.019079493	0.014752815	0.019079493	
X Variable 4	0.000001329	0.000000127	10.48409576	0.000000000	0.000001079	0.000001579	0.000001579	0.000001079	0.000001579	

## ANALYSIS OF MOTIVATIONAL FACTORS AND BARRIERS FOR INSTALLATION OF SOLAR ROOFTOP SYSTEM

Col A S Rathore\*, Vivek S. Kushwaha\*\*

*This paper analyses the motivational factors and barriers for installation of Solar Rooftop System (RTS) of potential customers and users of Solar RTS. Two separate questionnaires were sent online to the respondents. Responses from 514 potential customers and 115 existing Solar RTS users were recorded online and analyzed using SPSS (Ver 20) software. Analysis of both groups of respondents indicates that distributors and retailers of Solar RTS should continue to focus on personal selling being the most preferred option. The response to awareness through newspaper has been the lowest. The highest motivational driver for both the groups was the factor that solar RTS reduces electricity bill. Government subsidy is the second most preferred motivational parameter. Non affordability of Solar RTS due to high initial cost has been the strongest barrier. Lack of availability of cheap and affordable loan has been given as the second highest barrier. Factors identified, if implemented, will boost penetration of Solar RTS into the Indian market and reduce emission of greenhouse gases. The primary data collected online across various States in India will give better perspective of the expectations of customers and help modify solar energy policies being promulgated from Ministry of New and Renewable Energy to be implemented across India.*

**Key Words:** Solar Rooftop System, Awareness, Motivational Factors, Barriers.

### INTRODUCTION

Over the years, energy has become one of the commodities on which national security of a country hinges. With increasing import bills of Oil and Coal, the Indian economy gets exposed to the volatile global fuel supply market. India, therefore, needs to focus on the ways to increase the penetration of Solar RTS into common masses. It is known that not all the customers are same hence they have different expectations about procurement and installation of Solar RTS. This empirical study, therefore, has been done to find out the factors that motivate installation and barriers that prevent installation. Two separate surveys were done, with separate questionnaires. One survey was done on potential customers (who have yet to purchase Solar Electricity Generation System) and another survey was done on existing Solar Rooftop System (RTS) users. The responses from 514 potential customers

and 115 existing Solar RTS users received were recorded online. The present paper analyses the motivational factor and barriers of the potential customers and existing Solar RTS users.

### REVIEW OF LITERATURE

Palvi and Uday (2010) segmented consumers as users and nonusers in Satara district, Maharashtra. They observed that although the awareness about the solar products was 65 percent however the usage of solar products was a little lower i.e 49 percent for solar lantern, 22 percent for solar cooker and 10 percent for solar home lighting system. The survey on attitudinal parameters showed that 100 percent consumers agreed on usefulness of the solar equipment while 94 percent users opined high prices of products, while 94.8 percent users felt that they had high savings on using solar products. About 70 to 75 percent users were

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aware of the government schemes and availability of soft loans provided by banks. Study suggests to continue subsidies and low interest loans as these have been the major motivator for purchase of solar products. The study also suggests to increase awareness through advertisements.

Thamizchelvan and Jayanthi (2013), while studying the marketing strategies to expand the potential markets for renewable energy products, recommended promotional measures to boost the use of renewable energy. The study revealed that 26 percent of awareness is through newspapers and magazines while 22.3 percent got awareness through conferences and seminars. Study also revealed that only 55 percent users were willing to switch over to renewable energy. Majority of users were willing to pay more for renewable energy system being green energy and environment friendly. The factors influencing the investment in renewable energy products are lower energy bills, inadequate power supply, environment friendly energy, frequent advertisements, tax exemptions and govt subsidies. The study revealed various barriers such as high investment, non-availability of finances, maintenance difficulties, municipal approvals and permits, lack of awareness due to limited advertisement, non-familiarity with innovative technology and lack of government subsidies. Consumer's attitude revealed that majority (71 percent) responded lack of financing being the major problem. Study recommends increasing awareness among general public and potential users through conduct of workshops, business meets, seminars and encourage publicity through newspapers, TV, radio, emails and social media. The study recommends tax concessions and govt subsidies on renewable energy products to continue.

Solangi et al. (2013) in their study in Malaysia discusses that around 80 percent

respondents are interested to use solar energy but have neither the knowledge nor the financial means to do so. 88.8 percent of respondents agreed that government should increase subsidy on solar energy appliances. Around 91 percent respondents think that public knowledge and awareness levels on solar-energy policy development are important, 83 percent think the mass media is important, and 81 percent think that subsidies and incentives are important. The main barriers are that public is not willing to install it until they have adequate awareness about solar energy system/appliances, effective financial support like tax credits and better financing subsidies. Reducing the current subsidies for fossil fuels also seems an option to boost the public use of renewable energy source.

Solangi et al. (2015) in their study in Malaysia done between December 2011 and January 2012 explores firstly the public attitude toward the utilization of solar energy, secondly investigates public responses regarding the difficulties in consuming solar energy, thirdly the research analyzes public perspectives on enhancing solar energy development in Malaysia. The findings reveal that approximately 60 percent of the respondents are willing to choose solar energy if the cost is comparable to fossil fuel-generated electricity. More than 80 percent of the respondents are willing to buy solar panels if 50 percent of the total cost is subsidized by the government. Majority responded initial cost to be the highest hindrance, while some responded lack of correct information to hinder. Majority respondents claim that governmental should take the lead in boosting solar energy usage and implement solar energy policies.

Sigrin et al. (2015) conducted study at San Diego in 2013 and 2014 for home owners. The study was designed to explore the factors that drive households to adopt Solar PV, including stated motivations, stated barriers,

personal attributes, social network characteristics and access to information. The study using student's t-tests showed that adopters tend to have higher incomes by \$50 - 100 on averages and are more highly educated. Adopters live in larger homes, potentially a proxy for higher electricity costs and also expect to stay in their current homes by nearly 6.5 years longer than non-adopters. The general populace requires a clearer degree of relative advantage between the old and new technology for adoption. Adopters are pursuing solar installations to mitigating environmental challenges and as an economically attractive investment option.

Yaqoot (2016), in the study, separated adopters and non-adopters in Uttarakhand. It revealed that high capital cost and lack of access to capital (loan) are the barriers that are considered most critical by all categories of responders. Lack of awareness is a critical barrier to the non-adopters whereas the adopters consider unavailability of spares and trained manpower as more critical. A satisfied DRES adopter is more likely to recommend it to others resulting in more adoptions. Thus, effective maintenance services will increase adoption of renewable energy systems. Study recommends that DRESs may be promoted initially for community usage by demonstrating its usage and benefits. The improved distribution and after sales services will motivate households to adopt them. Financial analysis indicates that under unsubsidized fuel scenario, almost all DRES considered in the study are found to be viable even without capital subsidy. Thus, subsidies on conventional energy sources are found to be a major barrier to the diffusion of DRESs. Removal of such subsidies would minimize the need to provide capital subsidy on DRESs and would also promote DRESs adoption leading to sustainable development.

## OBJECTIVES

- To analyse the motivational factors of potential customers and existing Solar RTS users for installation of Solar RTS.
- To analyse the barriers for installation of Solar RTS of potential customers and existing Solar RTS users.

## METHODOLOGY

**The Study:** The study involves analysis of motivational factors and barriers of potential customers and existing users of Solar RTS.

**The Sample:** Both the questionnaires were sent online and total of 514 responses were received from users potential customers across 21 states and 02 cities and 115 responses were received from seven states and two cities.

**Tools for Data Collection:** After exhaustive review of literature, two separate questionnaires were prepared based on the identified parameters of motivational factor and barriers. One questionnaire was for the potential customers with 20 items and other with 18 items for existing Solar RTS users.

**Tools for Data Analysis:** The responses to objective questions were recorded using five point Likert scale ranging from strongly agree (5) to strongly disagree (1) and Yes or No responses to other questions. The responses have been analyzed using SPSS (ver 20) software and discussed in subsequent paras.

## Validity and Reliability Analysis

Both the questionnaires based on motivational factors and barriers were put through a pilot test from 30 existing users. Reliability was defined with Cronbach's alpha, for 18 items of questionnaire for potential customers which was 0.902 and standard value was 0.900. The Cronbach's alpha for 30 Solar RTS users for 20 items questionnaire was .897 and standard value was .810.

## HYPOTHESES

**H<sub>01</sub>:** There is no difference in the means of communication to spread awareness between potential customers and existing Solar RTS users.

**H<sub>02</sub>:** There is no difference in motivational factors of potential customers and existing Solar RTS users.

**H<sub>3</sub>:** There is no difference in the barriers for installation of Solar RTS between potential customers and existing Solar RTS users.

## DATA COLLECTION AND ANALYSIS

The study being exploratory in nature, the sample for both the survey was non-probabilistic convenience sample. The potential customers survey comprised of 504 responses from 21 states and 02 cities while the survey for Solar RTS users got 115 responses from nine geographical regions of India namely Rajasthan, Madhya Pradesh, Uttar Pradesh, Maharashtra, Gujrat, Jharkhand, Andhra Pradesh, Chandigarh and New Delhi. The second questionnaire was divided into three parts. First part dealing with general responses about solar RTS was captured using Yes/No option; second part dealing with motivational factors and barriers was captured on Likert five point scale and subsequently analyzed using SPSS (version 20). The third part on 'Suggestion to Government of India' and 'Suggestions to retailers and distributors' was recorded through telephonic interaction.

## FINDINGS OF THE STUDY

**Means of Communication:** The awareness about Solar RTS is being spread in masses through various means of communication. The analysis of 504 responses of potential customers and 115 responses of Solar RTS users (Table 1) indicates that distributors and retailers of Solar RTS should continue to focus on personal selling being the most preferred option as 60 percent of potential

customers and 61 percent of existing RTS users responded in its favor. The second most preferred media by both the respondents is to spread awareness through demonstrations during exhibitions and seminars as 21 percent of potential customers favored it, which has been confirmed by 28 percent of existing RTS users. This may be because the personal selling allows people to ask questions and clear the doubts in greater detail. The response to advertisement on TV/radio has been low with 15 percent of potential customers and 7.6 percent of existing users favoring it. The response to awareness through newspaper has been the lowest probably because the questionnaire was sent online and responses were also received online. Majority of the respondents would therefore be internet savvy and less of newspaper readers. It is therefore recommended that distributors and retailers should keep the focus on personnel selling and have motivated aggressive teams for demonstrations during exhibitions and seminars.

**Analysis of Motivational Factors:** The eight parameters of motivational factors of 504 responses of potential customers and 115 responses of Solar RTS users were analysed (Table 2). The highest motivational drive for both the groups was the factor that solar RTS reduces electricity bill, with 93.45 percent of potential customers favoring it and 96.52 percent of Solar RTS users also considered it to be highest motivator. Benefits of Government subsidy is second most preferred motivational parameter with 80.55 percent potential customers favoring it, which has been confirmed by 90.43 percent of Solar RTS users. The satisfaction to have on independent power source at home has been the third most preferred parameter with 86.3 percent agreeing to it which has been supported by 82.61 percent of Solar RTS users. Power cut being an issue and Solar RTS being perceived as its solution, has been responded to by 72.22 percent of potential



customers which has been agreed to by 64.35 percent of Solar RTS users. Almost 91.66 percent of potential customers responded that Solar RTS is a beneficial system which was confirmed by 78.26 percent of respondents after using Solar RTS. The need for cheap and affordable loan was perceived by 71.03 percent potential customers, which was seconded by only 47.83 percent of Solar RTS users. Tax concession being a motivator was responded by 67.06 percent potential customers, which were agreed to by almost 62.61 percent of Solar RTS users. The major difference appeared in the perception of solar energy being green energy and helps in reducing the pollution. While 13.09 percent of potential customers were not in agreement (may be due to lack of awareness) however, 98.26 percent of Solar RTS users agreed that Solar Energy is a green energy and reduces pollution. This builds up the argument that correct level of awareness about a system is important for people to purchase that system.

**Analysis of Barriers for Installation of Solar RTS:-** The seven parameters of barriers for installation of Solar RTS were compared using T test on responses from 504 potential customers and T test on responses from 115 Solar RTS users (Table 3). The analysis of results indicate that non affordability of Solar RTS due to high initial cost has been responded to be the strongest barriers with highest mean of 3.3948, T value 23.970 by potential customers and mean of 3.3805, T value 6.412 by users of Solar RTS. Lack of availability of cheap and affordable loan has been given as second highest barriers with mean of 3.2212, T value 5.404 by existing Solar RTS users where as it is at fifth level with mean of 3.1096, T value 18.964 for potential customers. The lack of confidence in solar technology has been graded as third strongest barrier with mean of 3.1681 and T value of 4.663 by existing users while for Solar RTS users, is at seventh position with mean of 2.9702 and T value 15.746. The low Rate

of Return on investment and long payback period has been kept as fourth strongest barrier with mean of 2.9735, T value 3.272 while potential customers have kept it at third strongest barrier with mean of 3.2718 and T value 23.294. The non-availability of retailers and suppliers has been graded second strongest barriers for potential customers with mean of 3.2994 and mean 22.780 while Solar RTS users had kept it at fifth place of importance with mean of 2.8407 and T value 2.500. The respondents of both the survey considered space requirement to be of lower significance as Solar RTS users kept it at sixth level with mean of 3.1865 and T value 19.236. The analysis of electricity source from solar or domestic grid is least significant barrier with lowest mean of 2.0982, T value 3.217 for Solar RTS users and mean of 3.1052 and T value of 18.272 for potential customers.

A source of funding has always become an important issue for a purchasing decision. Source of funds was therefore asked in both the questionnaire. The analysis of 504 responses from potential customers (Table 4) revealed that 34 percent respondent wanted to use own funds and 30 percent respondent wanted to take bank loan whereas the response from RTS users revealed that 95 percent respondents used own funds to purchase Solar RTS and only 5 percent respondents used credit card to convert the credit (loan) into EMI. Surprising none of the 115 respondents went to bank for loan. This indicates that Indian Govt need to find innovative lease models to increase penetration of Solar RTS into Indian markets.

### **SUGGESTIONS TO GOVT OF INDIA**

To get the qualitative analysis of the motivational factors and barriers, the users of Solar RTS were telephonically contacted by researcher to give suggestion for improvement by Govt of India and the same have been compiled as under:-

1. Central and State Government subsidies on Solar RTS to be continued.
2. Procedure for installation of RTS and to claim subsidy be simplified.
3. Installation of solar RTS on Government buildings, Government institutions, Colleges & Universities be made compulsory to increase visibility and awareness in public.
4. Respondents from Punjab, Rajasthan and Uttar Pradesh informed that Government has not reimbursed the subsidy to some customers for almost a year. DISCOM meter readers are not able to read the solar RTS meter properly. State electricity boards therefore should train meter readers to timely take the accurate meter reading and promote installation of smart meters, which are Wi-Fi enabled. These smart meters send data remotely to users as well as electricity companies there by minimizing the need of meter readers. The electricity board should timely refund money to the users for electricity generated by Solar RTS and transferred onto the grid.
5. State electricity boards are not forthcoming in promoting Solar RTS fearing loss of revenues hence state and central Government should make policies that motivate electricity DISCOM to vigorously promote smaller 01-05KW solar RTS that increases the penetration.
6. DISCOM are presently charging Rs 8.45/per unit from consumers and purchasing electricity from solar RTS at Rs 3.8/per unit. Consumers request DISCOM to cancel out electricity used by them against electricity supplied by solar RTS.
7. Kerala respondents want exemptions in tax and reduction in import duties to reduce installation cost and increase rate of return. Carbon credit should be provided to individuals generating electricity from solar RTS.
8. In Tamil Nadu, bidirectional net meter installation takes time and meter reading is taken once or twice in a year, hence delay is getting the refund.
9. Solar RTS does not function when there is no electricity from the domestic grid.
10. Few respondents used credit cards to convert Solar RTS loan into EMI for 2-3 years.
11. Chandigarh respondents informed that CREST Chandigarh, inspects the components and performance of rooftop system before releasing the subsidy. Subsidy was timely released to beneficiaries in Chandigarh. Chandigarh has been declared solar city and installation of solar rooftop for houses built in area larger than 500 square yard has been made compulsory. The primary motivation of Chandigarh respondents therefore is to get the compliance certificate. To install a 05KW solar RTS, out of Rs 3.15 Lacs required, one requires only Rs 2.6 Lacs as Rs 90,000 is refunded as subsidy. Most of the respondents funded Rs 2.6 Lacs from own sources rather than going through the process of bank loan. Some Chandigarh residents have inverters with inbuilt Wi-Fi so that the amount of electricity generated automatically comes into the mobile phone of the user.
12. Maharashtra respondents recommended that tax concessions be provided and Solar RTS prices be

reduced to have better Rate of Return on investment.

**Suggestion for Distributors and Retailers:-**

For qualitative analysis, the users of Solar RTS were telephonically contacted by researcher to give suggestion for improvement to distributors and retailers. The same have been compiled as under :-

1. Integrated efforts by distributors and retailers to increase awareness among masses.
2. Distributors and retailers should avoid giving false commitments and improve their services.
3. Solar RTS installation companies should periodically check the RTS after installation and also provide better after sales services

**RECOMMENDATIONS**

1. Government should facilitate that awareness campaigns of distributors and retailers are effective. The campaigns should highlight that Solar RTS is an independent pollution free source of energy. One can avail the benefit of Government subsidy as well as it reduces the electricity bill.
2. Government should focus on promoting smaller (less than 5KW) Solar RTS with increased subsidy as large number of smaller systems increase visibility there by increasing awareness among public. People are able to manage own funds for smaller Solar RTS hence lesser Government funds needed for providing loans.
3. Central Government should promulgate policies that motivate state electricity DISCOMS to promote installation of Solar RTS and resolve issues related to installation of solar

meters and training of meter readers.

4. Subsidy being primary motivator should be continued and timely released.

**CONCLUSION**

The study reveals that personal selling is the most effective means of communications to increase the penetration of Solar RTS hence distributors and retailers of Solar RTS should continue to concentrate on personal selling. TV and radio, though have been a source of mass communication, however they have not been effective means of communication to spread awareness about Solar RTS. Govt. should therefore improve the advertisement campaigns that connects to the masses and also increase the frequency of the advertisements in TV and Radio. Lack of availability of cheap and affordable loans has been responded as a barrier however 95 percent of Solar RTS users used own funds and only 05 percent of respondents used credit cards to convert the credit (Loan) into EMI. Surprisingly, none of the 115 Solar RTS users went to bank to take the loan. Some respondents informed that getting a bank loan is a lengthy and cumbersome procedure. Indian Govt. should therefore simplify the procedure for bank loan for Solar RTS. Most of the respondents (except Chandigarh) informed that the Solarnet-meter readers are not well trained to take the meter reading. Govt. should therefore make policies that promote Wi-Fi enabled inverters so that information about Solar electricity generated is passed automatically to the users as well as electricity distribution companies. The Indian Govt. should therefore keep on regularly reviewing its policies and apply mid-course corrections to increase the penetration of Solar RTS into Indian masses. This will reduce the import bills of Crude Oil and Coal and help is growth of Indian economy.

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## ANNEXURES

**Table 1: Analysis of Means of Communication to Spread Awareness**

S. No.	Means of Communication	Potential Customers (Nos)	Potential Customers (percent)	RTS Users (Nos)	RTS Users (percent)
1.	Newspapers.	19	3.7	05	3.4
2	Advertisements on T.V, Internet or radio.	80	15	08	7.6
3	Demonstrations during exhibitions and seminars	105	20.8	32	28
4	Personal selling, solar dealers and retailers.	300	59.5	70	61
<b>Total</b>		504		115	

**Table 2: Analysis of Motivational Factors**

S. No	Motivational Parameters	Potential Customers (Nos)		Potential Customers (percent)		RTS Users (Nos)		RTS Users (percent)	
		Yes	No	Yes	No	Yes	No	Yes	No
1	Power cut is a problem issue	64	140	72.22	27.2	74	41	64.35	35.65
2	Will have independent power source at home	435	69	86.3	13.6	95	20	82.61	17.39
3	Will reduce electricity bill.	471	33	93.45	6.5	111	4	96.52	3.48
4	Government provides subsidy on installation	406	98	80.55	19.4	104	11	90.43	9.57
5	Avail Tax concessions.	338	166	67.06	33	72	43	62.61	37.39
6	It reduce pollution being green energy	66	438	13.09	86.9	113	02	98.26	1.74
7	Benefits of solar to electric system.	462	42	91.66	8.34	90	25	78.26	21.74
8	Cheap and affordable loans.	358	146	71.03	28.97	55	60	47.83	52.17

# RTS Users: Solar Rooftop System users

**Table 3: Analysis of Barriers for Installation of Solar RTS (T test on 514 Potential Customers and 115 RTS Users)**

S. No	Parameters for Barriers	Potential customers (514)				RTS users (115)			
		Mean	S.D	T value	Sig	Mean	S.D	T value	Sig
1.	Non affordability due to high initial cost.	3.3948	1.30637	23.970	.000	3.3805	1.45969	6.412	.000
2.	Retailers and suppliers are not easily available.	3.2994	1.27678	22.780	.000	2.8407	1.44893	2.500	.014
3.	Low 'Rate of Return' on investment	3.2718	1.22577	23.294	.000	2.9735	1.53797	3.272	.001
4.	Feel space required for Solar RTS is very large	3.1865	1.38471	19.236	.000	2.5714	1.46253	.517	.606
5.	Lack of cheap and affordable loans.	3.1096	1.31092	18.964	.000	3.2212	1.41884	5.404	.000
6.	Domestic electricity is more convenient than solar electricity.	3.1052	1.35786	18.272	.000	2.0982	1.32175	-3.217	.002
7.	Lack confidence in solar energy technology.	2.9702	1.38334	15.746	.000	3.1681	1.52305	4.663	.000

**Table 4: Analysis of Funding Source for Solar RTS**

	Funding of Solar RTS	Potential Customers (514)		RTS User (115)	
		No	percent	No	percent
(a)	Full funding from own funds	174	34	109	95 percent
(b)	Bank loans or credit card payment	151	30	06	05 percent
(c)	Partial loan from bank.	147	28	0	0 percent
(d)	Others	42	08	0	0 percent

## ANALYZING WORKPLACE LONELINESS OF EMPLOYEES: A REVIEW

Deepa Katiyal\*, Khyati Ojha\*\*

*This paper presents a comprehensive review of recent empirical and conceptual studies dealing with loneliness of employees at workplace. To that end various social exchange and loneliness theories, LEADER Member exchange theories, organizational member exchange theories, leadership theories given by several authors are adapted in this paper. The vast majority of the studies examine the link between loneliness at workplace and job performance, intention to leave the organization, isolation at workplace, impact on leadership behaviour, well-being of employees at workplace and organizational as well as job commitment. The findings of this study examine the gaps in the current existing literature on loneliness of employees and also identifies that how these gaps in the literature can be filled with the help of scope for further studies that can be done in the same area. This paper serves as a base model to analyse and review most prominent human emotion at workplace which will provide a conceptual idea relating to major terminologies associated with workplace loneliness of employees and this conceptual idea will serve for future empirical studies. Discussions, conclusions and scope for further studies are also provided.*

**Key Words:** Workplace Loneliness, Job Performance, Social Exchange Behaviour, Commitment, Intention to Leave.

### INTRODUCTION

Loneliness among adults has been found to be severe, painful and killer in nature (Rokach, 1996). Studies suggest that almost everyone experiences loneliness though occasionally (Peplau and Perlman, 1982; Rubenstein and Shaver, 1982). According to Wood (1986), loneliness is one of the most fundamental and powerful human experiences. Loneliness is more common than Common Cold (Peplau, 1988).

Loneliness is a universal experience that does not respect the boundaries of age, gender, race, marital status or socioeconomic status; it is sometimes persistent and continuous and other times short-lived. This universal quality can be declared like- "No person has ever walked our earth and been free from the pain of loneliness. Rich or poor, wise or ignorant, faith filled or agnostic, healthy or unhealthy, have all alike had to face and struggle with it's potentially paralyzing grip.

It has granted no immunities. In short to be human is to be lonely".

Though loneliness is a predominant workplace emotion, unfortunately it has received scant attention within the field of management. In the present study it is attempted to explore past literature on employee loneliness. Loneliness is a growing wave, and the workplace is no exception. Loneliness at work is defined as those who experience emotional absence in their relationships at work, and feel a lack of social friendship. Ironically, at a time of extraordinary relationships and open-plan offices, people are reporting being lonelier than ever.

It is assumed that loneliness is a problem that happens away from the workplace but it's at an office nearby and it's not fruitful for businesses. Studies confirm that at least a third of employees have no strong workplace relationships. According to an article printed

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in the business magazine Inc. (2017), the scenario today is that, even at lunch everyone is obsessed with his or her phones. They're either texting friends, watching Netflix, or scrolling through Instagram. And the only thing you can think about is how much you want to have a conversation with another human being. While many of us were raised to respond to situations like these and shrug it off by saying, stop whining. Just do your job, there's something other than just emotions we need to consider when it comes to feeling alone at work. Research reveals that loneliness kills one's job performance.

Thus, the purpose of this paper is to present a review framework that provides an understanding of the extent to which loneliness at workplace affects employee, overall job and his psychology.

### OBJECTIVES

- To get an understanding of previous work done in the field of workplace loneliness of employees.
- To identify the gaps present in the existing body of knowledge.

### REVIEW OF LITERATURE

Erdil and Ertosun (2011) in their research paper discussed that how social climate have an impact on employee loneliness at workplace and how these two ultimately result in degradation of employee well-being. This research paper puts light on organizational aspect of loneliness at workplace. Since till now it has been studied from individual point of view only. Therefore, organizational factors (social climate) has been identified along with individual factors (workplace loneliness) and a model questioning their relationship with employee well-being is being prepared in this research paper.

Then a research model inquiring the relationships among social climate,

workplace loneliness and employee well-being is well thought-out and hypotheses related to the research model are developed in order to answer the research question- "Is there a relationship between loneliness of employees and social climate of the organizations?" and research question- "Does loneliness of employees and social climate of the organizations effect employee well-being?"

On the basis of these two research questions, hypotheses were prepared and tested on the data which was gathered from different departments of different sectors of organizations. Following hypothesis were proposed in this research paper:  $H_1$ : Social climate perception has a negative impact on loneliness of employees,  $H_{2a}$ : Loneliness of employees has a negative impact on positive job-related employee wellbeing,  $H_{2b}$ : Loneliness of employees has a positive impact on negative job-related employee well-being,  $H_{3a}$ : Social climate of organizations has a negative impact on negative job-related employee well-being,  $H_{3b}$ : Social climate of organizations has a positive impact on positive job-related employee well-being.

A conceptual model was prepared out of these hypotheses, which showed that social climate, emotional deprivation and social companionship have an impact on positive job related well being and negative job related well being of an employee.

Sample size of the respondents for gathering data was 203 respondents who were from diverse sectors and different sized companies. In the questionnaire, the Loneliness at Work scale –LAWS was used developed by Wright, Burt and Strongman. To assesses social climate in the workplaces' of employees, the scale developed by Litwin and Stringer was used. To assess the last part of the questionnaire Warr developed a scale to assess subjective well-being of employees at workplace. SPSS software 18.0 was used for the evaluation of data. Factor analysis was



used for the validity and cronbach alpha scale was used to estimate the reliability of the scales. Correlation and regression analyses were conducted to analyze the hypotheses of the study.

The conclusion which was drawn from the study is that there has been done lot of literature research on loneliness of employees as a phenomenon but there is lack in it's empirical study. Both social climate and loneliness of employees has came out to be important predictors of employee well being. The study also suggest that the social climate of organizations, if supportive for positive relations among employees, decreases loneliness of employees and has a significant influence on wellbeing.

Ayazlar and Güzel (2014) in their research paper obtained direct effects of loneliness at workplace on organizational commitment of employees. Both social companionship and emotional deprivation component of loneliness were taken into consideration for measuring the commitment of staff towards the organization.

They were taken some assumptions in the form of hypotheses for conducting the study which were as follows,

**H<sub>1</sub>**: Loneliness in the workplace negatively affects organizational commitment,

**H<sub>2</sub>**: Social companionship in the workplace negatively affects organizational commitment,

**H<sub>3</sub>**: Emotional loneliness in the workplace negatively affects organizational commitment,

**H<sub>2a</sub>**: Social companionship in the workplace negatively affects affective commitment,

**H<sub>2b</sub>**: Social companionship in the workplace negatively affects continuance commitment,

**H<sub>2c</sub>**: Social companionship in the workplace negatively affects normative commitment,

**H<sub>3a</sub>**: Emotional loneliness in the workplace negatively affects affective commitment,

**H<sub>3b</sub>**: Emotional loneliness in the workplace negatively affects continuance commitment,

**H<sub>3c</sub>**: Emotional loneliness in the workplace negatively affects normative commitment.

This study was conducted in a 5 star hotel establishment at Didim. Reason being for conducting this study in accommodation sector is high turnover ratio in this industry. 156 individual factors (workplace loneliness) and a model questioning their relationship with employee well-being is being prepared in this research paper.

Then a research model inquiring the relationship among social climate, workplace loneliness and employee well-being is well thought-out the hypotheses related to the research model are developed in order to answer the research questions – “Is there a relationship between loneliness of employees and social climate of the organizations?” and research question- “Does loneliness of employees and social climate of the organizations effect employee well-being?”

On the basis of these two research questions, hypothesis was prepared and tested on the data which was gathered from different departments of different sectors of organizations. Following hypothesis were proposed in this research paper: H1: Social climate perception has a negative impact on loneliness of employees, H2a: Loneliness of employees has a negative impact on positive job-related employee wellbeing, H2b: Loneliness of employees has a positive impact on negative job-related employee well-being, H3a: Social climate of organizations has a negative impact on negative job-related employee well-being, H3b: Social climate of organizations has a positive impact on positive job-related employee well-being.

A conceptual model was prepared out of these hypothesis, which showed that Social climate, Emotional Deprivation and Social Companionship have an impact on Positive job related well being and Negative job related well being of an employee. Sample size of the respondents for gathering data was 203 respondents who were from diverse sectors and different sized companies. In the questionnaire, the Loneliness at Work scale –LAWS was used developed by Wright, Burt and Strongman. To assesses social climate in the workplaces' of employees, the scale developed by Litwin and Stringer was used. To assess the last part of the questionnaire Warr developed a scale to assess subjective well-being of employees at workplace. SPSS software 18.0 was used for the evaluation of data. Factor analysis was used for the validity and cronbach alpha scale was used to estimate the reliability of the scales. Correlation and regression analyses were conducted to analyze the hypotheses of the study.

The conclusion which was drawn from the study is that there has been done lot of literature research on loneliness of employees as a phenomenon but there is lack in it's empirical study. Both social climate and loneliness of employees has came out to be important predictors of were the number of questionnaires which were taken into consideration for the purpose of the study.

The concept of organizational commitment was measured with the scale which was developed by Meyer and Allen (1997). The concept of loneliness in the workplace was measured with the scale which was structured by Wright et al. (2006). The correlation analysis was utilized to test the hypotheses in line with the data obtained in the study. As a result of the correlation analysis, statistically significant correlations occurred among some of the variables. The regression analysis is used to distinguish

between two or more correlated variables as dependent and independent variables and to explain their correlation with mathematical equation. As per the results obtained, only hypotheses H3, H3a, H3b were not supported. Normative commitment is not been taken into consideration into the study.

The occurrence of workplace loneliness not only have different causes but different consequences as well. The feeling of loneliness in the workplace might be effective on organizational commitment not only within the general scope but also in terms of its dimensions. Likewise, when the effects of the concepts of social companionship and emotional deprivation as two dimensions of loneliness in the workplace on affective and continuance commitment are examined, it is seen that only social companionship affects commitment.

**Inference:** The feeling of loneliness in the workplace might be effective on organizational commitment not only within the general scope but also in terms of its dimensions. Likewise, when the effects of the concepts of social companionship and emotional deprivation as two dimensions of loneliness in the workplace on affective and continuance commitment are examined, it is seen that only social companionship affects commitment. At this point, an individual's keeping his/ her colleagues at arm's length in the workplace or his/ her being left alone by his/her colleagues does not affect his/ her affective commitment; nevertheless, an individual's lack of friends with whom he/ she can share his/ her opinions in the workplace and the fact that no social relationships have been formed negatively affect an employee's affective commitment to the organization. The research study was conducted in an hotel establishment, hotels are labour intensive service organization consisting of high turnover ratio. Many relationships form and deform between the worker and employee class of an hotel

industry. It's a good sector to actually work upon because the work requires collective efforts of humans. Another relevant finding of the study is it's based on a scale which do not overcome the complexity of different cultures. This study identifies that a scale should be developed through which different cultures and loneliness within the employees who work in that culture should be studied. Also, this study can be conducted in other sectors as well and correlation among the variable can be identified for better understanding of the term Employee loneliness at workplace.

Rokach (2014) in his research article found effect of loneliness on people in general and leaders in particular. This paper closely examines these two constructs and how they impact each other. How leaders should cope up with this major issue is discussed in this paper. Alienation aspect of loneliness is being studied.

This paper briefly examined different kinds of leadership that took place right from the very beginning of human existence and it's evolution overtime and loneliness faced by such leaders. Van et. al. (2008) suggested a four-stage process of progressive evolution of leadership over the course of non-human to human primate history. It included the following:

**Stage 1:** Pre-human Leadership: Simple leader follower structures for coordinating group activities are found in the first stage (Bloom, 2000).

**Stage 2:** Band and Tribal Leadership Humans: not unlike chimpanzees, developed and shaped leadership by their unique evolutionary history.

**Stage 3:** Chiefs, Kings, and Warlords some 13,000 years ago, at the end of the Ice Age and the beginning of agriculture and dependable food supplies, leaders began to play a key role in food distribution within

the community (Diamond, 1997; Johnson and Earle, 2000).

**Stage 4:** State Leadership The fourth stage, some 250 years ago, is termed The Industrial Revolution (Van et .al., 2008).

In general, the psychological views of Peplau and Perlman (1982), Rokach and Brock (1997), and Weiss (1973), though they differ as to whether loneliness is a unidimensional or a multidimensional experience, share several common beliefs such as: loneliness is an experience of separation, loneliness is associated with invalidation of meaning, loneliness is painful and, thus, difficult to tolerate, loneliness motivates humans to seek meaning and connection, loneliness most probably has an evolutionary basis, Loneliness signals the potential for growth and new possibilities.

The question arises over here is do loneliness and leadership go hand in hand? The appropriate answer to this could be yes. They both go together as an executive climbs the ladder of organizational success. This is because as he rises in his career he has to face the estrangement from his peers and co-workers. This isolation results in several health problems. Now to reduce these health related problem various approaches which leaders can follow to reduce the feeling of loneliness at the top is suggested by the author in this paper, they are: executive/ leader coaching, peer support of other leaders, confidants, journal writing, peer assisted leadership, becoming authentic leaders in the organizations, reaching out to colleagues, increasing one's circle of friends in and out of work, self-development and understanding, spirituality and rituals. Loneliness in leadership, though perhaps inevitable, is not unchangeable if individuals utilize strategies to cope effectively.

Ertosun and Erdil (2012) in their research article have mentioned that loneliness at workplace reduces the organizational

commitment within the employees and make them not want to stay in the organization for too long, resulting in high turnover ratio.

The aim of this study is to answer the following research questions; 'Are the lonely employees less committed to their organizations and vice versa?' and 'Is loneliness effective on their intention to leave from their organizations?' and also 'Is affective commitment a catalyst on the association between loneliness and intention to leave?' On the ground basis of these research questions, various hypotheses have been constructed which can be mentioned as follows:

**H<sub>1</sub>:** Loneliness has a negative impact on affective commitment,

**H<sub>2</sub>:** Loneliness has a positive impact on intention to leave,

**H<sub>3</sub>:** Affective commitment has a mediating effect on the association between loneliness and intention to leave.

On the basis of these hypotheses a conceptual model was being constructed, speaking that loneliness at workplace affects affective commitment which ultimately affects intention to leave the organization of employees. Also, if we take it other way, loneliness at workplace directly affects employee's intention to leave.

Data from employees from various sectors and different sized companies in Istanbul was collected. Questionnaires were allocated both as hard copy and a link prepared for the survey. From questionnaires distributed, 107 of them were obtained via the link and rests of them were obtained as hard copy, finally a total number of 203 of the surveys returned back in valid. Therefore, 203 was the sample size used for the research purpose.

The questionnaire contained four parts; the first part asks demographic properties of employees and prepared by the researchers, rest of the questionnaire is adapted from prior studies. The second questionnaire is about loneliness of employees in the workplace. The Loneliness at Work scale LAWS is developed by Wright. The third part assesses affective commitment of employees. And finally the last part is developed by Teoman to assess intention to leave of employees.

Factor analysis, Correlation and Regression were the statistical tools used to reach a final model developed as a result of the study. This research was able to find out effect of loneliness on two different dimensions namely, affective commitment and intention to leave. This study proposes that loneliness is a multidimensional construct. In addition to this, another important issue is that affective commitment is about being socially supported. Findings of the research indicate that emotional deprivation isn't effective on commitment to the organization. However, emotional deprivation effects the decision to stay in or leave the organization. Because of that, it is important not to separate any dimension and measure them as a whole for organizational results. This study enables managers to think that loneliness is not something which does not impact negatively the performance and motivation of employees. Loneliness at workplace should be seen as organizational problem.

**Inference:** This study identifies effect of loneliness on two major organizational outputs: Affective commitment and Intention to leave. With this research proves that loneliness is a multidimensional term. This research paper talks about loneliness in terms of emotional depreciation and social companionship and has tried to find out effect of loneliness on organization as a whole. Various samples, cultures and variables related to loneliness can be used

for further investigation in this subject area. Demographics need to be studied empirically for better understanding of negative effect of this less studied common issue among various organizations.

Ozcelik and Barsade (2011, January) in their study discussed that loneliness is a phenomenon which has not been given much importance in the ancient or past literature. It is major issue which directly results in degradation of performance, team spirit and relational performance when affective commitment is being used as mediator. All these ultimately results into increase of surface acting of employees.

Specifically, as loneliness is a feeling that involves estrangement and alienation from others in the social environment, it is predicted here that dealing with this estrangement and lack of security will trigger both attentional deficits and relational withdrawal from the work place, leading to lowered performance.

**Attentional Mechanisms Explaining the Loneliness-Performance Relationship:** This suggested that when people feel lonely at work they do not disclose this loneliness to other people or co-workers because they feel others will not be able to understand their feelings, as a result employees take a more defensive approach in dealing with their surroundings and interact with others by putting a mask on their faces not revealing the real them. This mechanism explains that workplace loneliness is negatively related to job performance and surface acting is acting as a mediator in this relationship.

**Relational Mechanisms Explaining the Loneliness-Performance Relationship:** This explains that people who are lonely at workplaces will feel less belongingness towards their respective organizations and hence their affiliation will gradually decrease. This mechanism also explains that workplace loneliness is negatively related to job

performance and this relationship is mediated by affective commitment.

The sample consisted of 672 employees and their 114 supervisors across 143 work team units in two organizations - a for-profit private company and a not-for-profit (Public) organization. A multiple rater, multiple measure design was used to completely understand the loneliness phenomenon. Work loneliness was rated through self-reports, supervisor ratings and work team unit member ratings. The performance measures included task, team role, and relational performance. Task and team role performance were rated by the supervisor and relational performance was rated by the other members of the employee's work team unit.

The famous scale of loneliness was used to measure different dimensions of loneliness among employees. For studying the hypothesis regression analysis was used. Four employee personality factors: extraversion, agreeableness, trait positive affectivity, and trait negative affectivity were controlled. The results of the regression analyses we have conducted supported our hypothesized model where greater employee loneliness led to poorer task, team role and relational performance as mediated by lowered affective commitment and to a lesser extent increased surface acting.

The results in sum indicated that an employee's work loneliness triggers emotional withdrawal from their organization, as reflected their increased surface acting and reduced affective commitment. The results also show that co-workers can recognize this loneliness and see it hindering team member effectiveness. Thus, a practical implication of results obtained is that management should not treat work loneliness as a private problem that needs to be individually resolved by employees who experience this emotion; but rather should consider it as an organizational

problem that needs to be addressed both for the employees' sake and that of the organization.

**Inference:** The results of this research argues that greater loneliness led to poorer task, team role and relational performance as mediated by lowered affective commitment and to a lesser extent increased surface acting. The research paper mainly focussed on attentional mechanism and relational mechanism explaining loneliness performance relationship. While testing the hypothesis there were two separate regression analysis applied. One on self reported loneliness predictor variable and other on co-worker reported loneliness predictor variable. Loneliness of employees is viewed and examined from the perspective of co-workers and supervisors making loneliness as a social emotion. The study concludes that loneliness triggers emotional withdrawal from workplace giving huge space to surface acting. The paper identifies that including social context in work can actually increase the efficiency of work that has to be done, because people feel more connected.

Lam and Lau (2012) in their research article found the real impact of workplace loneliness on employee behaviour. This article used social- exchange model, and hypothesized that in comparison to non lonely counterparts, lonely employees experience lower quality of leader-member exchange and organizational-member exchanges at workplace. This is will result in poor role performance at work and outside the workplace.

This articles describes that employees who develop high sense of social exchange relationships with their employers develop a higher sense of obligation to the organization in terms of extra effort, commitment and willingness to sacrifice (Rousseau 1990; Shore and Barksdale 1998). Social exchange is associated with high level

of job performance and citizenship behaviour. Accordingly, due to lack of social exchange, following can be hypothesized:

**H<sub>1</sub>:** Workplace loneliness is negatively related to in-role performance,

**H<sub>2</sub>:** Workplace loneliness is negatively related to organizational citizenship behaviour.

Previous findings suggests that employees exchange their information with two types of partners namely, the leader or supervisor (LMX) and the organization (OMX). As lonely employees have poor LMX and LMX affects employee performance, following hypothesis were postulated:

**H<sub>3a</sub>:** LMX will mediate the negative relationship between workplace loneliness and in-role performance,

**H<sub>3b</sub>:** LMX will mediate the negative relationship between workplace loneliness and OCB.

Lastly, because lonely employees engage in low OMX, following hypothesis were given,

**H<sub>4a</sub>:** MX will mediate the negative relationship between workplace loneliness and in-role performance,

**H<sub>4b</sub>:** OMX will mediate the negative relationship between workplace loneliness and OCB.

The sample of the study was drawn from school teachers of Macao. 38 schools were selected from the city. Out of which 18 schools agreed to participate. 952 was the sampling frame. 532 questionnaires were completed by school teachers when returned. R-UCLA scale was used to measure workplace loneliness. Supervisors were asked to rate teachers in role performance and organizational citizenship behaviour for individuals (OCBI) and organizational citizenship behaviour for organizations (OCBO) using Williams and Anderson's (1991) scales. Graen and Uhl-

Bien's (1995) scale was used to measure LMX between the social exchange relationship between employees and supervisors. OMX was measured using Shore et al.'s (2006) 8 item scale.

Hypothesis  $H_1$ ,  $H_2$ ,  $H_{3b}$  and  $H_{4a}$  were supported in the results. The study found that the perceptions of loneliness varied within the work context. Lonely teachers were broadly those who were new to the job. Workplace loneliness is negatively related to both inrole performance and citizenship behaviour. Study also suggests that other control variables could also have been used, The same study can be conducted in the fields where team work is required.

**Inference:** The paper identifies impact of workplace loneliness on work and portrays that loneliness ultimately results in lower leader-member exchange and organizational-member exchange based on the social-member exchange theory. When faced with symptoms of loneliness an employee's in-role and extra-role performance reduces to a great level. The study found that employees who are new to the job find it difficult to connect with other counterparts easily and hence face loneliness. Feeling of emotional distress captures them and they do not make extra effort to mingle with others because fear of less or no reciprocation from the other side hinders them from doing so. Most of the times while analyzing an employee's behavior fulfillment of social relationships is a more discussed topic instead of deficit of social relationships. Research paper speaks that there is need to tease out the causal direction between loneliness and LMX using longitudinal data in the future. Also, along with individual and organization level controllers psychological and personality controllers can be included to enhance the research in terms of knowledge.

## DISCUSSION AND CONCLUSION

The main objective of this research paper is to get an understanding of previous work done in the field of workplace loneliness of employees. It cannot be said that a lot of previous work has been done in this area of research because especially in a country like India issues related to humans have been given less importance in organizations. Humans are the one who run an organization and it is really very necessary to identify and research on what bothers them, what makes them work less efficiently. Even if studies are done in this area, empirical studies are not enough to give a substantial base to the subject matter. It can be seen from the previous literature that mostly theoretical researches are done in this area of interest and in those researches loneliness of employees has been attached to and measured in terms of performance, intention to leave the organization, satisfaction, leadership, employee commitment and well being. The previous researches are good to have a knowledge base but not sufficient enough. There is much more scope where data can be collected and various factors, variables could be identified into the same study.

As far as the second objective of this research is concerned, identifying gaps in the present body of literature, it can be said that there exist a huge gap between the present literature and what can be done in this area. First of all, this study has almost never been conducted in Indian context so there is a huge possibility as far as the research is concerned as it will base upon altogether a new culture. Secondly, objectivity of this topic needs to be covered in the coming years as only objectivity of results will lead to actual results and suggestions that can be implemented. The study needs to try out different cultures, sample sizes, demographics and age to get a generalized view at the same. There has been studies

where the same topic of loneliness is covered within the boundary dimensions of individual and social factors, cultural factors are the one which have not been given much weightage as of now. Coming researches can be conducted carrying in mind cultural aspect of loneliness. It is seen that cross-sectional, multidimensional studies are done in this area but there is scarcity of research when it comes to develop a longitudinal approach, such that it can be examined with the help of it that how loneliness changes over a period of time within individuals. It can also be identified whether workplace loneliness is a perpetual feeling or temporary. As far as hierarchy level is concerned, in future studies can be done over higher authorities looking at this negative phenomenon from their point of view. Also, in future various antecedents and moderators such as social skills can be used.

### Future Scope of the Study and Recommendations

Employee loneliness has got lot of potential in terms of research in the coming future because it is an universal experience and every individual at certain point of time has experienced this less discussed emotion once in a while in their life. When an individual gets an emotional and social support from the society and that to at workplace, his motivation increases because he has people to talk about his difficulties, his problems, his achievements, his experiences related to work. This keeps him going in the monotonous life that we all struggle with. As discussed in the inference part of each literature and also in the conclusion that in Indian context the study on loneliness as an human emotion is a new one and has got lot of scope to go ahead.

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## AWAKENING OF INDIA TOWARDS CLIMATE CHANGE

**Nirmal Pagaria\***

*At an international climate negotiation in Bangkok, Thailand, India has shown signs of more proactive engagement on climate change issues both internationally and domestically. A report listing 20 initiatives that the country is undertaking to address climate change in India is released by the Ministry of Environment and Forests. The steps like these become part of India's larger National Action Plan on Climate Change. The world leaders gathered in the Paris suburb of Le Bourget to discuss the strategy to fight against climate change, where Prime Minister Modi was present wearing his hat of a global leader, pledging India's contribution to the cause. However, to deliver on the carbon reduction pledge that he will be making on the world stage, he must first wear a different hat: that of a bold domestic reform champion. He has to coordinate the policies and operations of different ministries and state governments to ramp up non-fossil fuel energy production.*

**Keywords:** Climate Change, Mitigation Pledges, CBDR, Conference of Parties, Carson.

### INTRODUCTION

In 2009, prior to the much-hyped Copenhagen Climate Summit, India began to reposition itself as a “deal maker.” India has announced a voluntary pledge to reduce the emissions intensity i.e. emissions per unit GDP among 30 to 35 percent below 2005 levels by 2030. This marked a shift not only because India agreed to undertake mitigation actions, but more so because it agreed to do so without any international financial support thus, giving a clear indication that India understood and acknowledged its own responsibility and is ready to engage constructively. India's role in the twenty-first session of the Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change (UNFCCC) was very different from the group's previous meeting in Copenhagen in 2009. At that time, inaccessible and bad-tempered China desperately sought India's help to resist western pressure to make a commitment to reducing carbon emissions. India's role remains critical at these negotiations. As an emerging economy ranked as a top-five greenhouse gas emitter and a key member

of the “BASIC” negotiating bloc, which consists of the major developing economies of India, Brazil, China, and South Africa India played a pivotal role in shaping the outcomes of the last two Conferences of the Parties (“COP”) in Copenhagen and Cancun. Given the recent appointment of a new Environment Minister, however, it is unclear how India will approach Durban (“COP-17”).

### India's Role in Climate Change:

India's active participation as a member of the BASIC bloc in Copenhagen, played a crucial role as a facilitator between the two largest GHG emitters, China and the United States. An important issue for the United States and other developed countries in the multilateral negotiations has been to establish a process to ensure transparency of the unilateral actions being pledged by countries – what is known in negotiator's terms as “measurement, reporting and verification” (MRV). Establishing such a process, developed countries argue, helps to build trust and confidence among parties that countries' mitigation pledges are being met. Leading up to the Copenhagen summit,

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there was significant tension around this issue primarily since China, and to some extent India expressed concern about potential infringements of their national sovereignty related to “verification” of their unilateral actions. India helped to find a middle ground between the United States and China by introducing the concept of “International Consultations and Analysis,” which was agreeable to both.

The principal elements of the Copenhagen Accord were:

- A goal to limit global temperature increase to 2 degree Celsius;
- A process by which developed and developing countries enter their mitigation pledges;
- A commitment by developed countries to raise \$30 billion in international climate finance between 2010-12 and a goal to mobilize \$100 billion per year by 2020 from various sources to address developing country needs;
- Broad terms for ensuring transparency of countries’ mitigation pledges (also known as “Monitoring, Reporting and Verification” (MRV)) and;
- Establishment of various institutions including a new fund (now called the Green Climate Fund), a Technology Mechanism and an Adaptation Committee. These main elements of the Accord were adopted a year later by the UN body as part of the Cancun Agreements at COP-16.

The legislations adopted by India at home are:

- Air (Prevention and Control of Pollution) Act, 1981
- Biological Diversity Act, 2002
- Environment (Protection) Act, 1986

- Forest Conservation Act, 1980
- Hazardous Waste Handling and Management Act, 1989
- Indian Forest Act, 1927
- National Green Tribunal Act, 2010
- Noise Pollution Rule
- Protection of Plant Varieties and Farmers’ Rights Act of 2001
- Public Liability Insurance Act, 1991
- The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006
- Water (Prevention and Control of Pollution), 1974
- Wild Life (Protection) Amendment Act, 2002
- Wildlife Protection Act, 1972

## CONCLUSION

Since agreeing to the UN Framework Convention on Climate Change (“UNFCCC”) in 1992, India has been a staunch defender of the principles of “Common But Differentiated Responsibility” (“CBDR”). India, along with other developing countries, has long argued that the responsibility of addressing climate change rests with those developed countries that have historically been the largest global greenhouse gas (“GHG”) emitters. While India continues to support the CBDR principle, it has shown greater flexibility in recent years as to the roles and responsibilities of developing countries. For the first time, at the COP in Bali in 2007, India and other developing countries acknowledged the growing significance of emissions from developing countries and their responsibility to act to reduce GHG emissions. This acknowledgment came to be reflected in the Bali Action Plan, which called for an “agreed

outcome” by COP-15 in Copenhagen that would include commitments or actions by developed country parties, as well as “nationally appropriate mitigation actions” to be undertaken by developing country parties.

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## CAMEL'S MODEL AS AN EFFECTIVE MEASURE OF FINANCIAL PERFORMANCE – ANALYSIS OF SELECTED NATIONALISED BANKS IN INDIA

**Shailendra Gangrade\*, Vidya Telang\***

*Banks are the pillars for the development of the Indian economy. Banks are playing very important role in Indian Economy that's why they have to perform and give their best. An evaluation of the profitability and financial performance of the banks is essential to fight through the difficulties and inefficiencies faced by the banking sector. There are various financial tools and techniques to analyse the performance of the banks, one of the most important one is the CAMESL model. Padmanabhan Committee has suggested the CAMELS Rating System. The CAMELS Model analyse various criteria through which bank performance will be measured. It includes Capital Adequacy, Assets quality, Management, Earning, Liquidity and Sensitivity of the Market. The main aim of this paper is to analysis the financial performance of selected Indian public sector bank using the camel model. For the purpose of the study five years data (2013 to 2017) of three public sector banks were taken. The public sector banks were selected on the basis of their size – small, medium, and large. The study understand to analyse that the size and number of branches does not directly connected to their profitability.*

**Key Words:** Padmanabhan Committee, CAMELS Rating, Financial Performance, Public Sector Bank, Capital Adequacy.

### INTRODUCTION

In the structure of Indian financial system, banks are the important pillars. Indian banking sector had gone through a long and revolutionary journey of reform towards the economic growth. So banks are the backbone for the economy to support all the blood vessels as an important key indicators to analyze the level of development of any country. The Liberalization process of Indian economy has made the entry of new private sector banks and the foreign sector banks to increase their branches in the banking sector. The competition and comparison by customers, create stress on banks to perform well.

Development of any bank is initiated by continuous monitoring of the operations of the banks and taking corrective measures. To get a clear understanding the financial statements of the banks are prepared to compare with competitors and develop

practices and policies that can improve the effectiveness of the banks. These financial statements need to be analyzed using various financial techniques, or through statistical analysis or any comparison studies. In this article CAMELS Model of financial statement analysis is used.

### CONCEPTUAL FREAMWORK

**CAMELS Rating:** CAMEL Model was designed in the year 1995. CAMELS' rating is an international supervisory rating system to classify a bank/ financial institution's overall condition according to six factors. This factors represented by the acronym 'CAMELS' and includes C – Capital Adequacy, A - Asset Quality, M – Management, E – Earnings, L – Liquidity and S – Sensitivity to market risk.

When introduced in 1979, the CAMELS system had only five components. The 6<sup>th</sup> component – Sensitivity to market risk, was

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added in 1995. This way the regulators that year also added an increased emphasis on organisation's management of risk.

**CAMELS Rating Scale:** The rating range from 1 to 5, with 1 – Highest Rating (the least amount of regulatory concern) and 5 – Lowest Rating (the maximum amount of regulatory concern). An overall CAMELS score of 3, 4 or 5 can expose a bank to any of the informal and formal enforcement action available to the regulators.

### **Recommendations of Padmanabhan Committee:**

In 1995, RBI had set up a working group under the chairmanship of Shri S. Padmanabhan to review the banking supervision system. As per the Recommendations of Padmanabhan Committee (1996), the banks in India should be rated on a five point scale of 'A' to 'E' which is widely based on International CAMELS rating. Each of the six components would be weighted on a scale of 1 to 100 and would contain several parameters with individual weightage.

### **Rating Scale in India:**

- A - Sound in every respect
- B - Fundamentally sound, but with moderate weaknesses
- C - Financial, operational and/or compliance weaknesses that give cause for supervisory concern
- D - Serious or moderate financial, operational and/or managerial weaknesses that could impair future viability
- E - Critical financial weaknesses that render the possibility of failure in the near term

### **OBJECTIVES**

This study has the following objectives:

- To study the overall performances and soundness of nationalised banks with the help of CAMELS Model approach.
- To test the proficiency of nationalised banks with Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality, and Liquidity ratings.

### **REVIEW OF LITERATURE**

Kour and Kour (2016) studied and applied the camels model on ten selected banks of India and they have ranked each bank according to their performance under each acronym of CAMEL. As per their ranking Bank of Baroda and Punjab National Bank had been ranked at the top position; whereas Indian Bank, IDBI bank, Canara Bank and State Bank of India secured the 2nd position. The Union Bank, Bank of India, Syndicate Bank and Central Bank of India are considered below average, and are closely monitored to ensure their viability.

Chowdhury (2012) found that the Indian banking system is growing and today it has reached a global level. The deregulation of the Indian Banking System has led to the innovation of the banking products and services. Continuous analysis of their performance and implementation of good practices are still needed for the growth and this growth can be studied with the help of the CAMEL model. Kaur and RituPriya (2017) studied on the secondary data by covering the period of five years from the year 2011–12 to 2015–16 which were analyzed by calculating six ratios related to CAMELS model and concluded that financial performance of Bank of Baroda was better than Punjab National Bank.

Gupta (2008) examined the performance of private sector banks by using CAMEL model and by assigning rating to the top five and

bottom five banks. They revealed that HDFC was at its higher position of all private sectors banks in India. Dash and Das (2009) analyzed the performance of public, private/ foreign sector banks under CAMELS model and the findings concluded that private/foreign banks have an edge over the public sector banks.

## METHODOLOGY

**The Study:** The nature of study is descriptive which aims to find out overall performances of nationalised banks.

**The Sample:** Three Nationalised Banks namely Bank of India, Bank of Baroda and Corporation Bank has been taken as sample on the basis of 2012-2017 figures. The reason behind selection of the three banks is that in spite of a low NPA ratio as compared to the other two banks under study, Bank of India has been incurring negative Return on Assets and Equity. At the same time Bank of Baroda which is almost of the same size (only slightly bigger in asset size) has been able to generate a positive Return on Assets and Equity in spite of higher NPA ratio. The study also compares the CAMEL Ratings of Corporation Bank which is of a smaller size as compared to BOB and BOI and has a higher NPA Ratio than BOI but has been able to earn a higher rate of Return on assets and Equity.

**Tools for Data Collection:** The study is based on secondary data. The data were collected from the annual report available at the RBI site. In addition to the records of the bank, data were also collected from banking bulletin, websites and various journals also. The study will cover a period of Five financial years from 2012-2017.

**Tools for Data Analysis:** Out of six parameters of CAMELS Model, first five were used to analyze the data. Ratio Analysis from Financial Management and descriptive statistics also used for analysis.

## CAMEL'S MODEL AND ANALYSIS

### 1. C = CAPITAL ADEQUACY RATIO

1.1. **Capital Adequacy Ratio:** it is the combination of Tier I and Tier II capital.

$$\text{CAR} = \frac{\text{Tier I capital} + \text{Tier II capital}}{\text{Risk Weighted Assets}} * 100$$

The higher ratio is preferable. It shows that the bank is adequately capitalized. Composite Ranking of Banks in Capital Adequacy Ratio is above the regulatory norm of 9 percent as per Basel II norms. It is also more than 10.5 percent as per Basel III norms. During the five years period ranging from 2012-2017 the highest average CAR is maintained by Bank of Baroda (12.72 percent) followed by Corporation Bank (11.55 percent) and then Bank of India (11.19 percent) (See Table 1).

1.2. **Debt-Equity Ratio:** This ratio is used to measure the company's financial leverage. It indicates how much debt the company using to finance its assets.

$$\begin{aligned} \text{Debt Equity Ratio} &= \frac{\text{Total Liabilities} * 100}{\text{Shareholder's Equity (OR)}} \\ &= \frac{\text{Long term Borrowings}}{\text{Equity}} \end{aligned}$$

The Debt Equity Ratio is a very important ratio in the array of Capital Adequacy Ratios. As it is the clear information that the lower Debt Equity ratio is preferable. On the basis of data analysed for the five years it was found that the ratio of Corporation Bank (0.4088) is in the lowest position so scored best position in Ranking of this ratio. Bank of Baroda is also in good situation with the average 1.2048 and stood on Second position But Bank of India came at the last Rank with the highest D/E Ratio 1.784 (See Table 2).

### 1.3. Total Advance to Total Asset Ratio

The Total Advance to Total Asset Ratio is Composite Ranking of Banks in Capital Adequacy. Corporation Bank (0.608) , Bank of Baroda (0.584) and during the 5 year

period ranging from 2013-2017 the highest average is maintained by Bank of India (0.624). The higher ratio is preferable. It shows that the Bank of India's Total Advances are good in compare to total Assets (See Table 3).

## 2. ASSET QUALITY

It includes Net NPA to Total Assets Ratio, Net NPA's to Net Advances Ratio and Total Investments to Total Assets Ratio.

**2.1. Net NPA to Total Assets Ratio :** Once the borrowers has failed to make interest or principal amount for 90 days, the loan is considered to be Non Performing Asset (NPA).

Formula:-  $\text{Net NPA} * 100 / \text{Total Assets}$ .

Composite ranking of banks in Assets Quality of net NPA to Total Assets Ratio. Lower ratio is preferable as non-payments leads to losses to the bank and poor quality of assets but sometimes increased assets is the cause of lower ratio. In the above comparison of averages shows that the composite ranking of Bank of India (0.0268) secured the high net NPA to Assets Ratio. Whereas, the Bank of Baroda (average 0.0172) score lowest ratio, hence secured first rank. The Corporation Bank is secured 0.0254 which is the middle position in this ratio (See Table 5).

**2.2. Net NPA's to Net Advances Ratio :** - Net NPA are calculated by reducing the cumulative balance of provisions outstanding at the period end from gross NPA. This ratio shows how much loans has been turned to bad debts as against total amount given as loan.

Formula :-  $\text{Net NPA} * 100 / \text{Net Advances}$ .

In the Asset quality Ratios another ratio is Net NPA to Net Advances. The higher ratio represents that the bad quality of loans is increasing thus lower ratio is preferable. The composite ranking shows here that Bank of Baroda (Average: 2.968) scored lowest ratio

and hence at the top rank. The Corporation Bank (4.286) and Bank of India (Average-4.442) is on second and third rank respectively. The poor performance of Bank of India could not balance its NPA in compare to net advances, hence required to be conscious while issuing loans (See Table 6).

**2.3. Total Investments to Total Assets Ratio:** This is an important ratio that measures companies' earnings before interest and taxes relative to its net assets. It indicates that how effectively the company is using its assets to generate earnings.

This Total Investments to Total Assets is the third and very important ratio in the series to analyse the Asset Quality of any bank. The composite ranking during the five year period ranging from 2012-2017 clearly identified the highest average of Corporation Bank 0.2798 which secured top rank in this ratio. Bank of India (0.1994) and Bank of Baroda is at the last (with 0.1766) in the ranking scale, due to its poor performance in Total Investments to Total Assets (See Table 7).

## 3. MANAGEMENT

It Includes Total Advances to Total Deposits Ratio, Profit Per Employee Ratio, Business Per Employee.

**3.1. Total Advances to Total Deposits Ratio:** A ratio is used in determining the amount of loans that a bank has out versus the amount of current deposits on hand at the same time. This ratio gives the first indication of the health of the bank, as this ratio measures the extent to which a bank's core fund are being used for lending which is its main banking activity. The ratio measures the efficiency and ability of the banks management.

A higher ratio indicates more reliance on deposit for lending, same as a very low ratio indicates that banks are not making full use of their resources. The composite ranking of



banks in 'Management' for the 'Total Advances To Total Deposits' Ratio during the Five year period ranging from 2012-2017 were calculated. The highest average is maintained by The Bank of India is 0.7338 so secured the top position also. The Corporation Bank average – 0.6944. On the basis of group average Bank of Baroda (Average-0.6778) stood at the last position (See Table 9).

**3.2. Profit per Employee Ratio:** This ratio indicates the contribution of each employee in the profitability of the banks. The formula is 'Net Profits / No. of Employees'. The Banks Profit per Employee is to analyse 'Management Soundness' which shown in table 10. The composite ranking during the five year period ranging from 2012-2017 clearly identified the average. As the Highest ratio is preferable, so here Bank of Baroda (Average in million Rs 0.86) secured the best position. Corporation Bank (Average in million Rs. 0.314) in the middle rank and at last the Bank of India stood at the last position with the Average in million Rs 0.02 due to its poor performance in Profit per Employee.

**3.3. Business per Employee Ratio:** This ratio indicates how well the employees of the banks are working. Basically it shows input output relationship of employee and business. It can be calculated with the formula as- Total Business (Deposits + Advances) / No. of Employees. Business per Employee is an indicator of employee's efficiency in generating business for the bank. Higher ratio indicates the greater efficiency of the employees. The table-16 containing the composite ranking during the five year period ranging from 2013-2017, showing the Business per employees. The Corporate Bank proved the best at the highest average of Rs. 192.112 million per employee. The Bank of India is on second position with an average of Rs. 187.00 millions and Bank of Baroda remain on the

last position with very less business (Rs. In Million, 177.44) by their employees (See Table 11).

#### 4. EARNING AND PROFITABILITY

The earning quality determines the ability of a bank to earn consistently, going into the future. This explains the sustainability and growth in future. ROA is the most important ratio that measures the earning capacity of any financial institutions. But to enhance the study few more ratios are added, some more weightage is added to them, they are Return on Assets, Operating Profit to Total Assets, Net Interest to Total Assets (Net Interest Margin) and Return on Equity.

**4.1. Return on Assets Ratio (ROA) :** It indicates how profitable a bank is in relation to its total assets. The formula for the ratio is- (Net Income \*100 / Total Assets). ROA is the most important ratio that measures the 'Earning Capacity' of any financial institutions / banks. Higher ratio indicates the best return on the assets. The table-13 containing the composite ranking during the five year period ranging from 2012-2017, showing the return on assets. The Bank of India proved the best with the average 0.426 and secured the top rank. The corporation bank on second position (0.376). The bank of baroda stood negative in 2016 and reach to the least position in the ranking.

**4.2. Operating Profit to Total Assets:** This ratio indicates how much operating profits are generated through utilising assets of the bank. Formula: EBIT / Total Assets. The composite ranking during the five year period ranging from 2012-2017, showing the Operating Profit to Total Assets, a very important ratio to analyse the Earning Capacity of the bank. The higher ratio is preferable as it indicates the assets that being utilised to full capacity thus giving maximum profits. The Corporation bank secured the Top Rank with 1.538 averages (See Table 14).

**4.3. Net Interest to Total Assets Ratio (Net Interest Margin):** Net Interest Margin (NIM) is a measure of the difference between the interest income generated by banks or other financial institution and the amount of interest paid out to lenders (for example, deposits), relative to the amount of their (interest-earning) assets.  $NIM = \frac{\text{Interest earned} - \text{Interest Expended}}{\text{Assets}} * 100$ . The interest and non interest incomes are the important inflow in the banking sector. The higher ratio is preferable as it indicates that bank is working very well. The composite ranking during the five year period ranging from 2013-2017 showing that Bank of India with the highest average 2.02, hence on the top rank. The Bank of Baroda was also on good position in the alternate years as 2017, 2015 and 2013 but the average is 2.00 and remain on the second rank. The corporation bank is on third rank with the average 1.848 (See Table 15).

**4.4. Return on Equity (ROE) :** The ROE is the very important component in the "Earnings Capacity" of a banking performance analysis. The composite ranking during the five year period ranging from 2012-2017, showing the Average Return of Equity. The higher ratio is preferable as it indicates that equity and dividends are in very good position and getting profits. The Corporation bank secured the Top Rank (5.5). Bank of Baroda (5.47) and Bank of India (0.684) scored second and third rank respectively (See Table 16).

## 5. LIQUIDITY

**5.1 Cash to Deposits Ratio:** Cash to deposit ratio (CDR) is the ratio of how much a bank lends out of the deposits it has mobilised. So it indicates how much of a bank's core funds are being used for lending. It can be calculated by the formula:  $\frac{\text{Total cash in Hand} + \text{Balances with RBI}}{\text{Total Deposits}}$ .

The Cash to Deposit Ratio is the very important Ratio in the "Liquidity Analysis" of a banking performance. The composite ranking during the five year period ranging from 2013-2017, showing the Average Cash to Deposit Ratio. The higher ratio is preferable as it indicates that how much of a bank's core funds are being used for lending. The Corporation bank secured the Top Rank (6.074). Bank of India (5.274) and Bank of Baroda (4.046) scored second and third rank respectively (See Table 18).

**5.2 Total Investment to Total Deposit Ratio:** This ratio measures liquidity available to the depositors of a bank. It measures how liquid the bank is in meeting its obligation towards the depositors of the bank.

Liquidity which represent nearness to cash. The analysis of Total Investment to Total Deposits shows the Corporation Bank is on the highest ratio of 31.176. As per the rule of the higher ratio is preferable, this bank secured Top Rank in comparison to other two banks. The Bank of India (23.614) and Bank of Baroda (21.494) stood on second and third rank respectively. Here the liquidity properly managed by Corporation Bank and holding more cash and investments in relation to its deposits as compare to other two banks (See Table 19).

## DISCUSSION AND CONCLUSION

Discussion based on the consolidated ranking given in Table 21 is as follows:

**Capital Adequacy:** From the table 21 one can see that Corporation Bank is leading with a rank total score of 5 where as Bank of Baroda and Bank of India are following both with a score of 6. This is because Corporation Bank is having a better Debt Equity Ratio as well as the Capital Adequacy Ratio and Advances to Assets ratio are also up to the mark.

**Asset Quality:** As far as Asset Quality is concerned Bank of India shown the worst position as it has very high NPA ratios as

compared to the other two banks. The Indian banking sector specially the public sector banks have been tormented by the increasing NPAs. The NPA losses erode the capital of the banks leaving them with a decreased return and a weakened lending capacity. The NPAs strike at the very basic function of the banks i.e. lending advances to the needy. Thus the asset quality gets highly impaired. Though Corporation Bank and Bank of Baroda are also suffering from considerable amount of NPA losses they are lesser as compared to Bank of India. The Corporation Bank is good in Total Investment to Total Assets Ratio. Both the banks are not of same size but here they shown the same rank total of 5. The rank total of 8 shown by Bank of India.

**Management:** The study of present data of the Corporation Bank, it is clearly analyse that this bank of smaller in size but the Business Per Employee is very high in compare to two other banks. Bank of Baroda and Bank of India also doing good in Profit per Employee and Total Advance to Total Deposits respectively. So with respect to management one can see that Corporation Bank is managing its resources in a better way than Bank of Baroda having very low results on Business per Employee Ratio. Bank of India also not doing well profit per employee. The Corporation Bank is stood on second rank in the two ratios namely Total Advances to Total Assets and Profit per Employee Ratios. It is also able to generate more income through its assets as compared to Bank of Baroda and Bank of India. In Management aspect also the rank totals are following the same pattern as in case of asset quality with 5, 6 and 7 for Corporation Bank, Bank of India and Bank of Baroda.

**Earnings:** Earnings ratios as represented by Return on Assets, Return on Equity, Operating Profit Ratio, and Net Interest to Total Assets (Net Interest Margin) are the most important indicators of profitability of the bank. According to these ratios Bank of

Baroda is suffering from negative returns for both the vital ratios i.e. Return on Assets as well as Return on Equity. Corporation Bank is doing well under almost all the criteria in the aspects of profitability especially in the ratios named Operating Profit to Total assets and Return of Equity in compare to well named and big in size banks. The Net Interest Margin is the only ratio in which Corporation Bank is on the third rank and Bank of India is on the first rank. It simply indicates that Corporation Bank is able to generate better returns on all parameters such as assets, equity, advances and investments. With rank totals of 7, 9 and 8 it can be seen that the best returns are generated by Corporation Bank followed by Bank of India and Bank of Baroda.

**Liquidity:** Liquidity which represents nearness to cash is being managed by Corporation Bank in a better way than its counterparts Bank of Baroda. and Bank of India. It means that Corporation Bank is holding more cash and investments in relation to its deposits as compared to the other two banks. Though maintaining liquidity is very important for a bank to avoid systemic distress still it cannot give strength to a bank which profits and earnings can. The results of Corporation Bank are on the top in view of both the ratios they are - Case to Deposits Ratio and Total Investment to Total Assets Ratio. Bank of India also performed well but in the view of Liquidity the Bank of Baroda into a compromising situation of being called the weakest bank. The resulting ranks are 2, 6 and 4 for Corporation Bank, Bank of Baroda and Bank of India respectively.

**Composite Score:** From the above table one can see that the composite score of Corporation Bank is the lowest (24) which means that it is the best performer as far as CAMEL ratings are concerned followed by Bank of India (32) and then Bank of Baroda (33). This makes Bank of Baroda is the weakest bank among the three.

Finally the Two banks of almost same size but one (BOI) is low NPA ratio in spite that negative returns on Assets and Equity in the current year. The BOB is having Higher NPA but generating positive returns on assets and equity. The corporation Bank the reason behind selection of the three banks is that in spite of a low NPA ratio as compared to the other two banks under study, Bank of India has been incurring negative Return on Assets and Equity. The corporation Bank has secured top rank in the above analysis with smaller in size and has a higher NPA Ratio than BOI but has been able to earn a higher rate of return on assets and equity in the current year.

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ANNEXURES

**Table 1: Capital Adequacy Ratio**

Year	Participating Banks		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	11.32	<b>12.24</b>	12.14
2015-16	10.56	<b>13.18</b>	12.10
2014-15	11.9	<b>12.61</b>	10.73
2013-14	11.65	<b>12.28</b>	9.97
2012-13	12.33	<b>13.30</b>	11.02
<b>Average</b>	11.55	<b>12.72</b>	11.19

(Source: RBI for Data and Ratios are Self Compiled)

**Table 2: Debt Equity Ratio**

Year	Name of the bank		
	Corporation Bank	BOB	BOI
2016-17	<b>0.5088</b>	0.76	1.28
2015-16	<b>0.183</b>	0.832	1.647
2014-15	<b>0.246</b>	1.445	1.881
2013-14	<b>0.356</b>	1.473	1.974
2012-13	<b>0.750</b>	1.514	2.139
<b>Average</b>	<b>0.4088</b>	1.2048	1.7842

(Source: RBI for Data and Ratios are Self Compiled)

**Table 3: Total Advance to Total Asset Ratio**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	0.57	0.55	<b>0.59</b>
2015-16	<b>0.60</b>	0.57	0.59
2014-15	0.64	0.60	<b>0.65</b>
2013-14	0.62	0.60	<b>0.65</b>
2012-13	0.61	0.60	<b>0.64</b>
<b>Average</b>	0.608	0.584	<b>0.624</b>

(Source: RBI for Data and Ratios are Self Compiled)

**Table 4: Consolidated Capital Adequacy Ranking**

Banks	CAR %	Rank	D/E ratio (Lowest)	Rank	Total Advances to Total Assets Ratio	Rank
Corp. Bank	11.55	2	<b>0.4088</b>	<b>1</b>	0.608	2
BOB	<b>12.72</b>	<b>1</b>	1.2048	2	0.584	3
BOI	11.19	3	1.7842	3	<b>0.624</b>	<b>1</b>

**Table 5: Net NPA to Total Assets**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	0.047	<b>0.026</b>	0.040
2015-16	0.039	<b>0.029</b>	0.046
2014-15	0.020	<b>0.011</b>	0.022
2013-14	0.014	<b>0.011</b>	0.013
2012-13	<b>0.007</b>	0.009	0.013
Average	0.0254	<b>0.0172</b>	0.0268

(Source: RBI for Data and Ratios are Self Compiled)

**Table 6: Net NPA's to Net Advances =%**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	8.33	<b>4.72</b>	6.90
2015-16	6.53	<b>5.06</b>	7.79
2014-15	3.08	<b>1.89</b>	3.36
2013-14	2.30	<b>1.89</b>	2.10
2012-13	<b>1.19</b>	1.28	2.06
Average	4.286	<b>2.968</b>	4.442

(Source: RBI for Data and Ratios are Self Compiled)

**Table 7: Total Investments to Total Assets**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	<b>0.25</b>	0.186	0.20
2015-16	<b>0.269</b>	0.179	0.195
2014-15	<b>0.281</b>	0.171	0.194
2013-14	<b>0.298</b>	0.171	0.199
2012-13	<b>0.301</b>	0.176	0.209
Average	<b>0.2798</b>	0.1766	0.1994

(Source: RBI for Data and Ratios are Self Compiled)

**Table 8: Consolidated Asset Quality Ranking**

Banks	Net NPA to Total Assets	Rank	Net NPA to Net Advances	Rank	Total Investments to Total Assets	Rank
Corp. Bank	0.0254	2	4.286	2	<b>0.2798</b>	<b>1</b>
BOB	<b>0.0172</b>	<b>1</b>	<b>2.968</b>	<b>1</b>	0.1766	3
BOI	0.0268	3	4.442	3	0.1994	2

**Table 9: Total Advances to Total Deposits**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	0.636	0.636	<b>0.678</b>
2015-16	0.684	0.669	<b>0.700</b>
2014-15	0.728	0.693	<b>0.756</b>
2013-14	0.709	0.693	<b>0.777</b>
2012-13	0.715	0.698	<b>0.758</b>
<b>Average</b>	0.6944	0.6778	<b>0.7338</b>

(Source: RBI for Data and Ratios are Self Compiled)

**Table 10: Profit per Employee (In Rupees, Million)**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	<b>0.30</b>	2.60	-0.32
2015-16	<b>-0.30</b>	-1.00	-1.22
2014-15	0.30	<b>0.70</b>	0.37
2013-14	0.30	<b>1.00</b>	0.63
2012-13	0.97	<b>1.00</b>	0.64
<b>Average</b>	0.314	<b>0.86</b>	0.02

(Source: RBI for Data and Ratios are Self Compiled)

**Table 11: Business per Employee (In Rupees Million)**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	195.80	174.90	<b>194.00</b>
2015-16	<b>187.90</b>	168.00	179.60
2014-15	191.40	188.90	<b>206.90</b>
2013-14	193.33	186.50	<b>196.30</b>
2012-13	<b>192.13</b>	168.90	158.20
<b>Average</b>	<b>192.112</b>	177.44	187.00

(Source: RBI for Data and Ratios are Self Compiled)

**Table 12: Consolidated 'Management' Ranking**

Banks	Total Advances To Total Deposits	Rank	Profit per Employee ( In Rupees, Million)	Rank	Business Per Employee (In Rupees Million)	Rank
Corp. Bank	0.6944	2	<b>0.314</b>	2	<b>192.112</b>	<b>1</b>
BOB	0.6778	3	<b>0.86</b>	<b>1</b>	177.44	3
BOI	<b>0.7338</b>	<b>1</b>	<b>0.02</b>	3	187.00	2

**Table 13: Return on Assets Ratio (ROA)**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	<b>0.23</b>	0.20	-0.24
2015-16	0.23	-0.78	<b>0.94</b>
2014-15	0.28	<b>0.49</b>	0.27
2013-14	0.29	<b>0.75</b>	0.51
2012-13	0.85	<b>0.90</b>	0.65
<b>Average</b>	0.376	0.2675	<b>0.426</b>

(Source: RBI for Data and Ratios are Self Compiled)

**Table 14: Operating Profit to Total Assets**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	<b>1.84</b>	1.61	1.57
2015-16	<b>1.34</b>	1.27	0.98
2014-15	1.35	<b>1.44</b>	1.26
2013-14	1.46	1.54	<b>1.64</b>
2012-13	1.70	<b>1.81</b>	1.78
<b>Average</b>	<b>1.538</b>	1.534	1.446

(Source: RBI for Data and Ratios are Self Compiled)

**Table 15: Net Interest to Total Assets (Net Interest Margin)**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	1.84	<b>1.98</b>	1.91
2015-16	1.84	1.84	<b>1.91</b>
2014-15	1.82	<b>1.92</b>	1.91
2013-14	1.82	1.98	<b>2.11</b>
2012-13	1.92	<b>2.28</b>	2.26
<b>Average</b>	1.848	2.00	<b>2.02</b>

(Source: RBI for Data and Ratios are Self Compiled)

**Table 16: Return on Equity (ROE)**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	<b>4.66</b>	3.44	-5.04
2015-16	<b>-4.64</b>	-13.48	-19.50
2014-15	5.68	<b>8.96</b>	5.57
2013-14	5.72	<b>13.36</b>	10.14
2012-13	<b>16.08</b>	15.07	12.25
<b>Average</b>	<b>5.5</b>	5.47	0.684

(Source: RBI for Data and Ratios are Self Compiled)



**Table 17: Consolidated 'Earnings and Profitability' Ranking**

Banks	Return on Assets Ratio	R	Operating Profit to Total Assets	R	Net Interest to Total Assets (Net Interest Margin)	R	Return on Equity (ROE)	R
Corp. Bank	0.376	2	<b>1.538</b>	<b>1</b>	1.848	3	<b>5.5</b>	<b>1</b>
BOB	0.2675	3	1.534	2	2.00	2	5.47	2
BOI	<b>0.426</b>	<b>1</b>	1.446	3	<b>2.02</b>	<b>1</b>	0.684	3

**Table 18: Cash to Deposits Ratio**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	7.93	3.79	5.06
2015-16	4.92	3.78	<b>6.62</b>
2014-15	5.09	3.64	<b>5.11</b>
2013-14	<b>7.10</b>	3.27	4.00
2012-13	5.33	<b>5.75</b>	5.58
Average	<b>6.074</b>	4.046	5.274

(Source: RBI for Data and Ratios are Self Compiled)

**Table 19: Total Investment to Total Deposit Ratio**

Year	Name of the Bank		
	Corporation Bank	Bank of Baroda	Bank of India
2016-17	<b>29.05</b>	21.54	23.67
2015-16	<b>30.84</b>	20.98	23.17
2014-15	<b>26.74</b>	18.92	22.52
2013-14	<b>34.23</b>	20.41	23.93
2012-13	<b>35.02</b>	25.62	24.78
Average	<b>31.176</b>	21.494	23.614

(Source: RBI for Data and Ratios are Self Compiled)

**Table 20: Consolidated Liquidity Ranking**

Banks	Cash to Deposits Ratio	Rank	Total Investment to Total Assets	Rank
Corp. Bank	6.074	1	31.176	1
BOB	4.046	3	21.494	3
BOI	5.274	2	23.614	2

**Table 21: Rankings Based on CAMEL Ratings**  
(On the basis of Average of Five Years 2012-2017 Figures)

		Corporatio n Bank	Ran k	Bank of Barod a	Ran k	Bank of India	Ran k
<b>1</b>	<b>Capital Adequacy</b>						
1.1	Capital Adequacy ratio	11.55	2	12.72	1	11.19	2
1.2	Debt Equity ratio	0.4088	1	1.2048	2	1.784 2	3
1.3	Total Advances to Total Assets Ratio	0.608	2	0.584	3	0.624	1
	<b>Parameter Total</b>		<b>5</b>		<b>6</b>		<b>6</b>
<b>2</b>	<b>Asset Quality</b>						
2.1	Net NPA to Total Assets	0.0254	2	0.0172	1	0.026 8	3
2.2	Net NPA/Net Advances	4.286	2	2.968	1	4.442	3
2.3	Total Investment to Total Asset Ratio	2.2798	1	0.1766	3	0.199 4	2
	<b>Parameter Total</b>		<b>5</b>		<b>5</b>		<b>8</b>
<b>3</b>	<b>Management</b>						
3.1	Total Advances to Total Deposits	0.6944	2	0.6778	3	0.733 8	1
3.2	Profit per Employee (In million Rupee)	0.314	2	0.86	1	0.02	3
3.3	Business per Employee ((In million Rupee)	192.112	1	177.44	3	187.0 0	2
	<b>Parameter Total</b>		<b>5</b>		<b>7</b>		<b>6</b>
<b>4</b>	<b>Earnings</b>						
4.1	Return on Assets (ROA)	0.376	2	0.2675	3	0.426	1
4.2	Operating Profit to Total assets	1.538	1	1.534	2	1.446	3
4.3	Net Interest to Total Assets ( Net Interest Margin)	1.848	3	2.00	2	2.02	1
4.4	Return on Equity (ROE)	5.50	1	5.47	2	0.684	3
	<b>Parameter Total</b>		<b>7</b>		<b>9</b>		<b>8</b>
<b>5</b>	<b>Liquidity</b>						
5.1	Cash to Deposit Ratio	6.074	1	4.046	3	5.274	2
5.2	Total Investment to Total Assets Ratio	31.176	1	21.494	3	23.61 4	2
	<b>Parameter Total</b>		<b>2</b>		<b>6</b>		<b>4</b>
	<b>Composite Total</b>		<b>24</b>		<b>33</b>		<b>32</b>

## CUSTOMER OBSESSION: A KEY TO INCREDIBLE CUSTOMER EXPERIENCE

**Pallavi (Joshi) Kapooria\*, Pranay Karnik\***

*Until a decade ago the goals of CRM adoption were focused on optimizing, automating business processes and with the help of tools like these, organizations focused upon “managing” their customers. The customers today enjoy greater exposure, information and knowledge and are not inanimate objects that are to be managed. They are active, savvy and like to engage with the marketers for a better experience. They want the marketers to anticipate their needs and create meaningful interactions with them which can give them a unique, personalized experience and if they don’t get this, they will not hesitate to take their business elsewhere. Most of the successful organizations have customer focus at one of their core values and rightly so. After all the customers are the reason for which the company exists. But over the years many successful organizations have realized that just having the customer focus is not enough and Customer Obsession is the way forward if they want to excel in the long run. Being customer obsessed is a step further of being customer focus. It involves continuously testing, enhancing and personalizing the customer experience. Customer focus talks about understanding customers’ current wants and needs, whereas, customer obsession aims at inventing and delivering on unanticipated future needs. In customer focus the marketer is having a focus on customer satisfaction, whereas, in customer obsession the marketer aspires to long term customer delight. Organizations having a customer focus think about providing better product than the competitors but organizations who are customer obsessed, pioneer new frontiers with less competition. Customer obsession means a healthy preoccupation with customers’ unanticipated, future needs through a mix of research techniques that put the customer in the center of everything you do, so that you begin to see the product through their eyes. This conceptual paper emphasizes upon the emerging concept of customer obsession and underlines its crucial dimensions which are instrumental in creating a culture driven by the desire to learn from the customers and not just to listen to them.*

**Keywords:** Customer Obsession, Market Responsiveness Index, Strategic Alignment, CRM, Customer Intelligence.

### INTRODUCTION

“There is only one boss, the customer, and he can fire everybody in the company from the chairman on down, simply by spending his money somewhere else.” -Sam Walton

This famous quote by Sam Walton summarizes the threat which keeps the marketers always on their toes. Not only the customers have more choices about the products or services, but they have more information available about these choices. If you look at any successful organization, it will surely have customer focus at one of its

core values and rightly so. After all the customers are the reason for which the company exists. But over the years many successful organizations have realized that just having the customer focus is not enough and customer obsession is the way forward if they want to survive in the long run. Customer obsession means constantly listening to customers, and then continuously testing, enhancing, and personalizing the customer experience. Customer focus talks about understanding customers’ current wants and needs whereas customer obsession aims at inventing and

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delivering on unanticipated future needs. In customer focus the marketer is having a focus on customer satisfaction, whereas, in customer obsession the marketer aspires to long term customer delight. Organizations having a customer focus think about providing better product than the competition but organizations who are customer obsessed, pioneer new frontiers with less competition. According to Gibson Biddle, former VP at Netflix, customer obsession means a healthy preoccupation with customers' unanticipated, future needs through a mix of research techniques that put the customer in the center of everything you do, so that you begin to see the product through their eyes.

According to Oren Kaniel of Appflyer, customer obsession means to continue being unbiased and independent and place our customers' at the forefront of every decision we make. Customer obsessed businesses like Amazon and Netflix have transformed whole industries. They are mostly driven by the desire to learn from the customers and not just to listen to them. Rather than simply understanding the current wants of their customers, these organizations began to deliver the unanticipated future needs. They haven't just created new products but they have set new expectations for others to follow and in doing so they have created larger margins that are more sustainable over time. According to a blog written in salesforce.com, businesses that do not put the customer first will struggle for relevance in an increasingly competitive market.

Until a decade ago the goals of CRM adoption focused on optimizing and automating business processes and with the help of tools like these, organizations focused upon "managing" their customers. But the customers today enjoy greater exposure, information and knowledge and are not inanimate objects that are to be managed. They are active, savvy and like to engage

with the marketers for a better experience. They want the marketers to anticipate their needs and create meaningful interactions with them which can give them a unique, personalized experience and if they don't get this, they will not hesitate to take their business elsewhere.

Customer obsession helps the organizations in doing much more than building better customer experiences. In fact it can help in re-imagining the whole business. The way Amazon has re-invented the retail is a prime example of its customer obsession. Amazon's core competency is not category but its obsession with its customers and what they could possibly want has allowed it enter and disrupt categories. Needless to say that it has created a new type of customer experience.

Developing a customer obsessed culture is not an easy task. Successful organizations who have mastered this art enjoy the kind of customer loyalty which is a dream for every marketer. To stay competitive in the business, the companies need to first understand the true meaning of customer obsession. They need to adopt the customer obsessed thinking and this not only requires an acceptance by the leadership but most importantly the employees, who are supposed to execute the customer centric vision of the business, need to be empowered. Without an internal transformation the goal of building a customer obsessed culture cannot be achieved.

### **Unique Strategies Adopted by Customer-Obsessed Companies**

If the 1900s to 1960s was considered to be the age of manufacturing and 1990s to 2000s was called as the age of information, we have seen the prime focus of the business being on manufacturing and information respectively in these eras. After that the power has shifted back to people and engagement with people or customers

means everything. Year 2010 is considered to be the age of customers and forrester research. In last few years we have witnessed many organizations putting the customer first in everything they do. The companies who are truly customer obsessed have realized the importance of customer obsession and are seeing positive results. According to Bain and Company, a five percent increase in customer retention can increase the profits by 25 percent to 95 percent. So what do the customer obsessed companies do differently than most of the other organizations are merely doing a lip service of being customer centric. According to article written by Tricia Morris in [businesstocommunity.com](http://businesstocommunity.com), here are some of the differentiators.

### **Investing in Customer Experience**

In the age of the customer, the customer obsessed companies focus their energy, their strategies, and their budget on processes that enhance knowledge of and engagement with customers.

### **Awareness of the Customer Journey**

Customer obsessed companies recognize and acknowledge that the customer journey is almost never a straight-line journey. They invest in creating a 360 degree view of the customer that maps the customer journey and use the information for better customer insights.

### **Use of Customer Intelligence**

Customer-obsessed companies don't just take the feedback for the sake of doing it, they act upon the suggestions given and the expectations shared with them to develop the products, services and brand their customers desire.

### **Alignment of Brand Strategy with Customer Experience**

Creating consistent positive customer/brand interactions requires the alignment of

customer experience with the brand strategy. According to a poll of Forrester's Customer Experience Council, just 18 percent companies actually align customer experience with their brand strategy. Customer-obsessed companies walk the walk on being focused on their customers.

### **Use of Multiple Sources of Customer Data**

Customer obsessed companies use data obtained from multiple sources to get to know and show that they know each customer. Then they use this information to predict and suggest best next actions and purchases and thus create a relationship of trust.

### **Focus on Retention Over Acquisition**

In 2013, Forrester conducted a survey of global CMOs and it was found that 63 percent mentioned that acquiring new customers was their top priority, and just 22 percent said retaining current customers was their top goal. Customer-obsessed companies know it very well that customer retention is much more beneficial for their profits hence they don't obsess over wanting more. They appreciate and take care of what they've got as they believe that the brand advocates will drive new customer acquisition for them.

### **Creating Post-sale Connection with the Customer**

Customer obsessed companies focus on creating a customer engagement both shortly and long after the sale. They communicate proactively with the customers in an authentic way which gives them a feeling of a personal connection and care.

### **Investing in Content Creation**

Rather than pushing promotional content and advertising, which usually irritates the customers and pushes them away, customer-obsessed companies develop and deliver helpful and shareable content which not only helps them in making the right buying

decision, but also enhances their customer experience.

### **Flexibility to Customers' Needs**

Align the processes and empowering the staff to make sure that each customer interaction is personalized and satisfying is extremely important for companies. Customer-obsessed companies realize the importance of personalization and customization and are always flexible to customer needs.

### **Creating a Seamless Experience**

Customer obsessed companies are aware of the various standard and emerging channels their customers are using every day and create seamless service experiences and customer experiences across these channels.

### **Developing a Customer Obsessed Culture**

Customer obsession is all about putting the interests of customers first in order to build deep relationships with them. The challenge for the organizations is to identify the specific behaviors that will cultivate the culture of customer obsession. Developing a customer-obsessed culture that enables employees to win customers and keep them by delivering superior customer value is not an easy task but can be achieved if the organization is truly committed for it.

Most of the organizations focus on their own needs, and somehow this translates into focusing on the needs of the top management or the business owners. For example, people expect the elected government keep the promises made in their election campaign and to ensure the welfare of its citizens. But unfortunately after coming to power the entire machinery focuses upon making the party in power look good. Getting government and its machinery to actually focus on the needs of the public by putting the public first is often extraordinarily difficult.

According to an article written by Gerry McGovern in CMS Wire on developing customer obsession culture, customer obsession begins with humility. Humility requires constantly listening to the customers and observing their behavior. Organizations should make the decisions based on the evidence of customer behavior and not on the basis on their own opinion or ego biases. It also means that success should be measured on the basis of the customer success, i.e. the customer should feel that he has got a successful solution to the problem by using the product or service. In a customer success culture, organization success is dependent on, and flows from, customer success.

Agility is the next important characteristic of customer obsessed organizations. It is very difficult to understand the customers by just looking inside the organization. Customer obsessed organizations anticipate the future needs of the customers so they need to know the exact requirements of their customers and to design the products which meet the customers' requirements, they must design with the customers. This requires agility and an open and receptive mind. The customers, their needs, their choices and preferences are changing very fast and most of the organizations find it difficult to keep up the pace. For example most of the organizations are very slow in updating their own website whereas, a customer obsessed company like Amazon, update its website in every 12 seconds. It is pretty obvious that these updates keep the customers glued to the websites and the organization they see some frequent changes happening there.

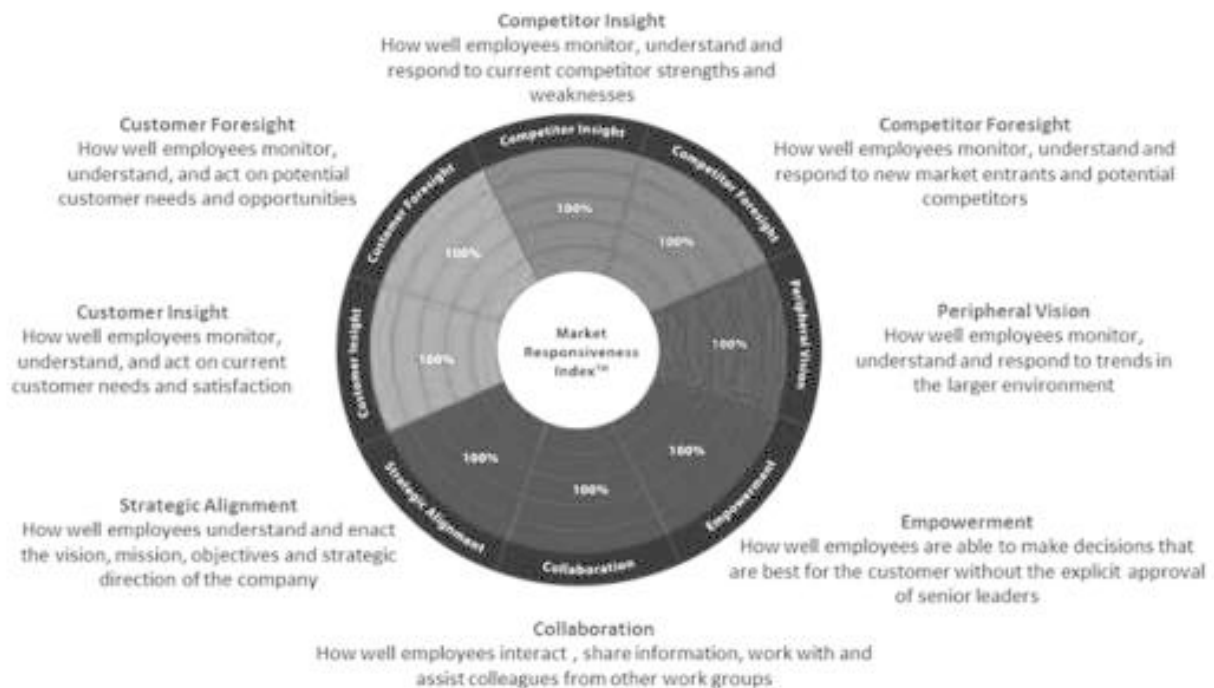
Simplicity for the customer is another important characteristic of customer obsession. If you want to be obsessed with your customers, you need to be obsessed with saving their time. Many customers are comfortable with giving up their privacy to achieve more convenience. Many of the time

saving innovations of organizations like automated phone systems and outsourcing of certain services help them in saving time and money for themselves. But actually it wastes a lot of time of the customers resulting in negative customer experience.

Another mistake some organizations are doing is by being too much obsessed with the competitors. Obsession with competitive advantage sometimes creates a kind of myopia which disables the organization to look beyond the competition. According to an article published in Destination CRM by Lior Arussy Founder and President, Strativity Group, organizations measure the customer expectations by the industry standards they are in and miss the whole perspective. If the standards of customer expectation are very poor, it will be foolish to accept them as a benchmark. The customer who is using an American Express Card is also flying by Jet Airways, eating at McDonald's, using an Uber, watching movies on Netflix and is

shopping on Amazon. All these experiences shape his expectations and his definition of a great experience is influenced largely by the vendors that serve him.

Organizations should not let the industry thinking be an excuse for inferior customer experience. Rather than making a product to product or feature to feature comparison with the competitors, organizations should raise the standards of meeting customer expectations in order to have a real competitive advantage. The Market Responsiveness Index (MRI)<sup>TM</sup>, providing clarity on how customer centric the culture is in being proactive on addressing external influences as well as encouraging internal enablers to success. Market Culture Strategies developed the Market Responsiveness Index (MRI)<sup>TM</sup> after conducting research on business performance and have identified eight key dimensions for leaders and decision makers to embrace.



**Figure 1: The 8 disciplines of a Customer Obsessed Culture**

Source: [www.marketculture.com/mri](http://www.marketculture.com/mri)

### **Customer Insight**

Customer insight means exploring the driver, motivations and values of your customer to understand what a certain product, service or brand really means to them. It is like removing layers of an onion and you need to go deeper and deeper into it to know more. Customer insight is a deeper and more thorough understanding of the problems that customers face. It can transform assumptions and hunches into validated understanding of customer behavior and can help in articulating customer problems, needs and wants better than customers themselves.

### **Customer Foresight**

Customer foresight focuses upon how well the employees understand, monitor and act on potential customer needs and opportunities. A thorough understanding of customer insight helps in developing better customer foresight.

### **Competitor Insight**

Competitor insight means focusing upon understanding, monitoring and acting on current competitor strengths and weaknesses.

### **Competitor Foresight**

Competitor foresight focuses on how well the employees understand, monitor and respond to new market entrants and potential competitors.

### **Peripheral Vision**

Having a peripheral vision is all about understanding, monitoring and responding to the trends in the larger environment.

### **Empowerment**

The success of any organization aspiring to have a customer obsessed culture depends upon how empowered its employees are and how well they are able to make decisions that are best for the customers on their own.

### **Collaboration**

Serving a customer right often requires taking help from other departments as there could be multiple tough points. Hence the ability and willingness of the employees to share information interact and work with the colleagues of other departments plays a very important role in creating a customer obsessed culture. Developing a customer obsessed culture is a challenging task and the successful organizations who have mastered this art enjoy the kind of customer loyalty which is a dream for every marketer. To stay competitive in the business, the companies need to first understand the true meaning of customer obsession and instill a thorough acceptance imbibed in the organizational DNA through an internal transformation.

### **Strategic Alignment**

For any customer obsessed organization to become successful, it is important that the employees understand and enact the vision, mission, objectives and the strategic direction of the company. They must know where are they headed and what are the goals and priorities of their organization. Organizations can have a better objective understanding about their behavior and whether this behavior is encouraging effective decision making or not, by benchmarking performance on these eight disciplines against leading international companies.

### **CONCLUSION**

For any organization which dreams of having a customer obsessed culture it is important to note that developing a customer obsessed culture would require revamping its focus, vision, strategies and objectives. This also requires a top to bottom approach where the top management defines what being customer obsessed means to them as an organization and communicates the same to their employees and customers. The organizations need to know everything



about the customers' existing and future needs and should offer the solutions accordingly. They also need to have better competitor insight and should be able to predict their future actions. They need to empower their employees so that they decide what the best decisions for their customers are. But to actually be able to do all these things, the organization need to have a long term perspective as developing a customer obsessed culture would require investing a lot of time, money and resources and the benefits of this culture may not be visible in a shorter span of time. Thus, developing a customer obsessed culture would be relatively easier for organizations which have abundant resources, patience and perseverance along with a long term vision. Those organizations which cannot sustain this long term investment will find it difficult to develop a customer obsessed culture. However, sooner or later the informed customer who has access to all the information about various solutions to his problem, will make sure that all the organization who are serious about their businesses, adopt the customer obsessed culture. After all the customer is the King and the King is worth being obsessed about.

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## DETERMINANTS OF LISTING GAINS IN IPO IN INDIAN MARKET

Avijit Bakshi\*, Plabita Medhi\*\*, Somen Mitra\*\*\*

*Listing means the shares have been allotted as per Initial Public Offering (IPO) allotment schedule and now investors would be able to buy and sell these shares on stock exchanges. On the day of listing, the stock might list or start to be traded at a price that is higher or lower than the cut off, or allotment price. If the opening stock price is higher than the allotment price, this difference is referred to as listing gain. While listing gains are anticipated in every IPO, but practically there are many instances where the stocks have ended the first trading day with losses. An attempt has been made in this paper to identify the determinants of listing gains. Four independent factors were identified which may influence listing gains. These factors include the subscription size of the issue which indicates the demand for the issue; the market sentiments proxied by index movements; promoter's holding; and the industry performance in which issuing entity belongs to. Fifty issuing companies have been selected for the sample study dated from 8<sup>th</sup> September 2017 to 18<sup>th</sup> September 2018. The results of the study indicated that only subscription size of the issue was influencing listing gain significantly. It means that demand for the issue is driving the gains. Notwithstanding, it was not guaranteeing that oversubscription always necessarily ended up with listing gains. The paper also indicated that promoter's holding, market sentiments or industry performance were not the driving factors for listing gains.*

**Key Words:** Listing Gains, Market Sentiments, Oversubscription, IPO, Issue Size, Stock Exchange.

### INTRODUCTION

An Initial Public Offering (IPO) is a procedure by which a privately held company transforms into a publicly held company by offering shares to the general public for the first time. There are types of investors in the market who aims only to grasp listing gain in IPO. But practically all IPOs do not necessarily end up with listing gain. The Indian IPO market in financial year 2018 was busiest, with around 58 IPOs out of which 40 IPOs on SME segment were launched. Out of 58 IPOs, 37 IPOs have given magnificent returns and doubled investor wealth. On the contrary, 21 listed at discounts and lost investors' capital. Table 1 and table 2 given in annexure indicates the listing gain and loss that took in year 2018 in Indian market.

The attempted study to capture the factors driving the listing gains. This paper believed to be one of the very initial attempted that has been done to empirically examine the factors affecting listing gains. This study attempts to enrich empirical research in the field and provides an insight in the context of Indian capital market.

### REVIEW OF LITERATURE

Samuel (2011), studied 35 firms in the Ugandan market for the financial years 2003–2007 to identify determinants of initial public offers readiness in large firms that have not yet sought to raise capital through a stock market. A conceptual framework was developed after a series of focus group discussions. The regression model was built and dependent variable was micro determinant regressed against a set of

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criterion indicators using logistic and multinomial logistic regression models. The models showed that age, level of disclosure, legitimacy of the board (inclusion of independent non-executive directors), and level of market activity (information asymmetry) were significant determinants of initial public offers readiness of the firm.

Hutagaol et. al. (2011) studied 124 IPO firms which went public in the Indonesian Stock Exchange and found that management absolute forecast errors (AFE) were determined by firm size, forecast interval period, industry and the firm business range. They also found that the AFE was positively related to the IPO underpricing, indicating that the higher the forecast errors, the more underpriced were the IPO.

Bansal and Khanna (2012) studied IPOs listed at BSE between 2008 to 2011 and came out with the findings that number of shares offered, institutional non promoters, issue size, market capitalization, and private IPO firms had significant effect on the level of under pricing post market crisis and firm's age, offer timing, foreign promoters, Indian promoters, non-institutional non promoters had no significant difference in the level of under pricing after market crisis.

Krishnamurti et. al. (2013) examined the determinants of offer price band and its influence on offer price adjustment and post listing performance in the Indian IPO market. They found that retail demand, used as a proxy for investor sentiment, positively impacted offer price range and that profitability of the firms was inversely related to offer price range. It was also found that offer price adjustment was positively related to offer price range.

Jain and Padmavathi (2013) studied 227 book built IPOs during the period 2004-2009 and found that the average underpricing during the observation period was 28 percent, while maximum underpricing was pegged at 242

percent. Saravanan and Joji (2014) studied 127 IPO companies, listed in NSE, between the period 2018-2012 and found that there was no significant relationship between the degree of underpricing and explanatory variables, except the variable, age of the firm.

Singh (2017) studied the general and specific trends in the Indian IPO market post liberalization (observation period 1992 to 2015) and concluded that the amount raised through IPOs grew at a CAGR of 11.5 percent, average size of IPOs grew at a CAGR of 23 percent while number of IPOs had declined signalling more maturity and in turn efficiency of the markets post liberalization, where it was able to discriminate between good and bad issues.

Hawaldar et. al. (2018) examined pricing as well as long-run performance of 464 Indian IPOs during the period 2001 to 2011 which revealed that as compared to fixed price IPOs, book built IPOs were underpriced by lesser magnitude and book built IPOs were associated with negative cumulative average abnormal returns (CAARs) up to five years and beyond. It was also observed that negative CAARs associated with fixed price IPOs turn positive after one-half year and continued to be positive thereafter.

## METHODOLOGY

**The Study:** The study is descriptive in nature. The study has only made an attempt to find out determinants of listing gains or losses in the Indian primary market.

**The Sample:** Fifty companies listed in India Stock Exchange have been selected for the sample of the study dated from 8<sup>th</sup> September 2017 to 18<sup>th</sup> September 2018.

**Tools for Data Collection:** The index considered in the study for data collections is the Standard & Poor's CRISIL NSE Index 50 or S&P CNX Nifty nicknamed Nifty 50 or simply Nifty.

**Tools for Data Analysis:** Using multiple regression, a linear relationship between listing gain in IPO and its determinants has been estimated.

The regression equations are shown below.

$$L\_gain_i = \pm + {}^2_1Sub_i + {}^2_2P\_Hold_i + {}^2_3Indx_i + {}^2_4Ind_i$$

where

$\pm$  = constant

${}^2_1$  = coefficients of determinants of listing gain

Sub = subscription times

P\_Hold = Promoters' holding

Indx = NIFTY returns at the time of IPO (taken 7 days before the IPO opened)

Ind = Industry performance (Year on Year basis)

Table 3 given in annexure reveals the correlation matrix which indicates high correlation among listing gains and the independent variables.

## Description of Explanatory Variables

### Listing gain

On the day of listing, the stock might list or start to be traded at a price that is higher or lower than the cut off, or allotment price. If the opening stock price is higher than the allotment price, this difference is referred to as listing gain, otherwise it is termed as listing loss. If the market sentiment is bearish at the time of listing, then the chances of listing gain is low.

### Index returns (Nifty)

The index considered in the study is the Standard & Poor's CRISIL NSE Index 50 or S&P CNX Nifty nicknamed Nifty 50 or simply Nifty. The performance of the index is calculated by taking the average performance of the last 07 days preceding the listing date of the share. It is tried to capture the sentiment of investors through Nifty returns immediately before listing. It is likely that favorable market conditions

proxied by index returns before listing lure the investors to create more demand for IPO.

### Promoter's holding

Promoters' stake means the number of shares held by the promoters out of the total number of shares in the company. According to recent regulations, a minimum threshold level of public holding will be 25% for all listed companies. That means the promoters' stake can be a maximum of 75%. If a promoter raises his stake, it is perceived that he is doing so as he has high confidence in the business and feels that the stock is significantly undervalued. This means that they actually believe in the future path that the company is expected to take and want to benefit from that.

### Industry performance

The growth of a particular industry in which the issuing company belongs to is ascertained. The performance of an industry is likely to influence investors to invest in a company performing under that industry.

## RESULTS

The empirical results are obtained by using the SPSS 16.0. The multiple regression analysis is carried out in order to realize the suitable equation that may predict determinants of listing gain. The results are explained below at 0.05 (5 percent) level of significant.

Table 4 indicates that subscription times have positive effect on listing gains at 5 percent significant level. The promoters' holding, index return, industry performance don't have any significant impact on listing gains.  $R^2$  (coefficient of determination) interprets the proportion of total variability which is explained by regression equation. The result of this regression model provides goodness of fit with the value of  $R^2$  0.775.

The co-efficient of multiple correlation (R) is a measure of how well a given variable can

be predicted using a linear function of a set of other variables. Thus, R provides a measure of how well Y can be predicted from the set of X scores. Table 4 indicates that R value is quite high (.794) enough to predict listing gains. The model provides F value of 43.271. The estimation of coefficient of parameters of this regression results can be expressed in the equation as below:

$$L\_gain_i = 9.056 + .406Sub_i + (-.075P\_Hold) + .376Indx_i + .206Ind_i$$

### FINDINGS OF MULTIPLE REGRESSION ANALYSIS

The following paragraphs describe how the co-efficient follow the expected relationship with listing gains in detail. It is also attempted to provide discussion about the results.

#### Subscription times

The result established that when the demand for an IPO's shares is greater than the number of shares issued or oversubscription then it has a positive significant effect on listing gains. Although significant oversubscription is a good indicator but, it does not guarantee post-listing performance.

#### Index returns (Nifty)

The Nifty returns during last 7 days preceding the listing date of the share does not influence significantly to the listing gains. It depicts that inner strength of the stock and market sentiments acts as stimulus to drive post listing performance.

#### Promoter's holding

The promoter's holding in issuing company can't influence significantly post listing performance of IPO. Despite the fact it indicates confidence of promoters on the issuing company. Still it can't influence investors' decision to create demand for the company.

#### Industry performance

The results indicate that the industry performance in which issuing company

belongs to does not influence the listing gains significantly.

### CONCLUSION

The paper analyses listing gain aimed for professional traders only and not for long-term investors whose aim for long-term returns and possessing a piece of ownership in a company that was not available earlier. Listing gains may be unrelated to long-term returns. It was tried to capture the factors that might influence listing gains for IPO. The paper reveals that none of the factors are significant, except only oversubscription i.e. significant demand for the issue which leads to listing gains. It can be inferred for an IPO investor that other than the image, performance and profile of the issuing company is important. Due to data unavailability the performance of the issuing (unlisted) company can't be factored in the study as independent variable. If this limitation can be kept aside, better insights are expected from the findings to the study.

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## ANNEXURES

Table 1: IPOs in Gain on Listing Date in 2018

Company	Listed on	Issue Price	Listing day close	Listing day gain	Current Price	Gain/loss
Yasho Industries Limited	2/4/2018	100	100.25	0.25	110	10
Varroc Engineering Limited	6/7/2018	967	1,040.55	73.55	713.7	-253.3
Taylormade Renewables Limited	6/4/2018	35	37.8	2.8	24.75	-10.25
Tasty Dairy Specialities Limited	21-02-2018	45	48.35	3.35	23.25	-21.75
Shreeshay Engineers Limited	21-03-2018	15	15.23	0.23	22	7
RITES Limited	2/7/2018	185	212.7	27.7	270.7	85.7
Ridings Consulting Engineers India Limited	26-03-2018	18	18	0	19	1
Raw Edge Industrial Solutions Limited	18-07-2018	72	72.4	0.4	69	-3
Rajnish Wellness Limited	9/7/2018	95	100.15	5.15	135.5	40.5
Palm Jewels Limited	12/6/2018	30	35.85	5.85	30	0
Orissa Bengal Carrier Limited	5/4/2018	30	33.45	3.45	50.8	20.8
Newgen Software Technologies Limited	29-01-2018	245	253	8	319.6	74.6
Nakoda Group of Industries Limited	6/6/2018	35	35.25	0.25	28.7	-6.3
Mishra Dhatu Nigam Limited	4/4/2018	90	90	0	115.4	25.4
Megastar Foods Limited	24-05-2018	30	31	1	53	23
Lemon Tree Hotels Limited	9/4/2018	56	71.6	15.6	68.3	12.3
Kenvi Jewels Limited	16-02-2018	36	39.1	3.1	11	-25
Jhandewalas Foods Limited	12/1/2018	55	66	11	39	-16
Innovators Facade Systems Limited	24-05-2018	72	75.6	3.6	54.4	-17.6

IndoStar Capital Finance Limited	21-05-2018	572	585.5	13.5	339.05	-232.95
Indo US Bio-Tech Limited	11/5/2018	51	57.8	6.8	58	7
H.G. Infra Engineering Limited	9/3/2018	270	270.05	0.05	219	-51
Gujarat Hy-Spin Limited	8/2/2018	10	10.81	0.81	6.04	-3.96
Garv Industries Limited	25-04-2018	10	10	0	6	-4
Galaxy Surfactants Limited	8/2/2018	1,480.00	1,698.10	218.1	1,170.75	-309.25
Focus Suites Solutions & Services Limited	9/2/2018	18	21.6	3.6	8.38	-9.62
Fine Organic Industries Limited	2/7/2018	783	822.8	39.8	1,133.95	350.95
East India Securities Limited	13-03-2018	920	930	10	940	20
Dhruv Consultancy Services Limited	10/5/2018	54	56.05	2.05	37.5	-16.5
Bhatia Communications & Retail (India) Limited	21-02-2018	150	150.1	0.1	80.55	-69.45
Bandhan Bank Limited	27-03-2018	375	477.2	102.2	481	106
Apollo Micro Systems Limited	22-01-2018	275	454.1	179.1	125.8	-149.2
Angel Fibers Limited	6/3/2018	27	27.1	0.1	27	0
Amber Enterprises India Limited	30-01-2018	859	1,237.25	378.25	913.7	54.7
Affordable Robotic & Automation Limited	4/6/2018	85	94.55	9.55	105.2	20.2
Advitiya Trade India Limited	26-03-2018	15	15.76	0.76	30.5	15.5
Active Clothing Co Limited	26-03-2018	65	65.65	0.65	30	-35

(Source: bseindia)

**Table 2: IPOs in Loss on Listing Date in 2018**

<b>Company</b>	<b>Listed on</b>	<b>Issue Price</b>	<b>Listing day close</b>	<b>Listing day gain</b>	<b>Current Price</b>	<b>Gain/loss</b>
Akshar Spintex Limited	11/5/2018	40	38	-2	20.95	-19.05
Arihant Institute Limited	5/6/2018	30	29.25	-0.75	25.3	-4.7
Ashoka Metcast Limited	5/2/2018	20	16	-4	3.8	-16.2
Aster DM Healthcare Limited	26-02-2018	190	179.85	-10.15	149.25	-40.75
Benara Bearings and Pistons Limited	3/4/2018	63	61.95	-1.05	54.45	-8.55
Bharat Dynamics Limited	23-03-2018	428	390.7	-37.3	279.9	-148.1
CRP Risk Management Limited	31-01-2018	60	49.7	-10.3	32	-28
Dr Lalchandani Labs Limited	9/5/2018	30	28.5	-1.5	25.75	-4.25
Gautam Gems Limited	7/2/2018	36	34.6	-1.4	74.95	38.95
Hindustan Aeronautics Limited	28-03-2018	1,215.00	1,128.35	-86.65	777.4	-437.6
ICICI Securities Limited	4/4/2018	520	445.05	-74.95	261.6	-258.4
Inflame Appliances Limited	16-03-2018	54	50.7	-3.3	70	16
Karda Constructions Limited	2/4/2018	180	142.8	-37.2	186.2	6.2
Lex Nimble Solutions Limited	4/4/2018	57	55.35	-1.65	50	-7
Lorenzini Apparels Limited	15-02-2018	10	9.25	-0.75	4.75	-5.25
Medico Remedies Limited	8/2/2018	100	97.15	-2.85	92	-8
Milestone Furniture Limited	21-05-2018	45	44.45	-0.55	18.9	-26.1



Rithwik Facility Management Services Limited	11/1/2018	50	45.45	-4.55	36	-14
Sandhar Technologies Limited	2/4/2018	332	322.55	-9.45	314.5	-17.5
U. H. Zaveri Limited	22-05-2018	36	25.65	-10.35	10.95	-25.05
Waa Solar Limited	12/6/2018	161	153.15	-7.85	54	-107

(Source: bseindia)

**Table 3: Correlation Matrix**

	<i>L_gain</i>	<i>Sub</i>	<i>Indx</i>	<i>P_Hold</i>	<i>Ind</i>
<i>L_gain</i>	1				
<i>Sub</i>	0.885639	1			
<i>Indx</i>	0.6185	0.213676	1		
<i>P_Hold</i>	-0.54628	-0.10576	-0.1727	1	
<i>Ind</i>	0.719294	0.161711	0.056795	0.001554	1

Source: Own calculation

**Table 4: Regression Results**

<b>Variables</b>	<b>Co-efficient</b>	<b>t-value</b>	<b>p values</b>
Constant	9.056	1.061	.294
Subscription times (Sub)	.406*	12.270	.000
Promoters' holding (P_Hold)	-.075	-.748	.459
NIFTY returns (Indx)	.376	.295	.769
Industry performance (Ind)	.206	1.145	.258
Goodness of fit:			
R	0.794		
R <sup>2</sup>	0.775		
F value	43.271		

Source: Multiple Regression Analysis

## EFFECT OF HRM BUNDLES ON ORGANIZATIONAL PERFORMANCE : A REVIEW

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*Human resource is the most valuable resource in every organization /institute they contribute immensely to organizations the world over. For educational institutions most valuable human resource are lecturers and researchers, who primarily realize the strategic and operational objectives, the holders of human assets and applied knowledge. Without staff possessing proper qualifications, educational and research experience and the right attitude, institutions in higher education cannot operate. Teachers are the back bone of any nation and play an important role in the nation building. Higher and technical education is a big challenge for the policy makers, thus it is important to have competent and effective teaching system. Thus, success and effectiveness of teaching system is depending upon the quality of its teachers. In this changing scenario of education, an attempt has been made to review the relationship between HRM bundle and organizational performance.*

**Keyword:** -HRM Bundle, Higher Education Faculty.

### INTRODUCTION

Human Resource Management (HRM) is a relatively new approach to managing people in any organisation. People are considered the key resource in this approach, it is concerned with the people dimension in management of an organisation. Since an organisation is a body of people, their acquisition, development of skills, motivation for higher levels of attainments, as well as ensuring maintenance of their level of commitment are all significant activities. These activities fall in the domain of HRM and HRM bundles. Human resources are a core determinant of quality in higher education and research. Universities/institutes must therefore work to enhance their human potential, both qualitatively and quantitatively, by attracting, developing and keeping talent in the teaching/research career. Excellence can only emerge from a favourable professional environment based in particular on open transparent and competitive procedure (European Commission 2005).

All institutions emphasize the importance of human resource bundles, the educational

institutions have no exception in this regard. In Higher Education Institutes (HEI's), it is the work of teachers that determines the degree of success or failure. It is the teacher who gives the institutes its credibility and determines its character. It is necessary for the educational administration to focus on HRM Bundles for the quality education. Quality education will remain a dream without the quality teachers. In this competitive world, educational administration should attract and select teachers who are the most competent and skilled in their relevant fields. They should hone their skills through proper training and development, appraise their performance by using some standardized appraising tools. HRM Bundles helps Management Faculty/Teacher to play a significant role in managing daily Academic activities. The study will be dealing with Effect of HRM Bundles on organizational performance.

HRM Bundle is interrelated and internally consistent human resource practices, complementary to each other, or the most important human resource practices and elements and its human resource

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management activities. HR activities are commonly called “bundles”. Many researchers have confirmed that when HR practices are considered and practiced as “bundles”, those provide more direct and stronger synergic effects on companies’ performances.

## **REVIEW OF LITERATURE**

Ichniowski et al. (1993) beautifully define the impact of cooperative and innovative HRM practices on organizational productivity. It was revealed that “bundles” of internally consistent HRM practices were associated with higher productivity and quality. Study concluded that perceptions of job security, compensation level, job satisfaction, organizational tenure, demographic variables such as age, gender, education, and number of dependents, organizational commitment, whether a job meets an individual’s expectations, and the expressed intention to search for another job were all predictors of employees’ leaving the organization Sheridan (1992) also found that perceptions of organizational culture influences turnover.

Kumari (2014) in her study revealed that soft skills are a very important personal attribute and interpersonal skill which help in sustained growth of individual, student and society. Soft skills are psychological skill which help to develop self-awareness, self-esteem, critical thinking skill, problem solving skill, empathy (to see the word other eyes or understand other situation), decision making skill. Soft skill enhance Individual job performance, social interactions and career prospects. Soft skill has been gaining importance in the field of education also. The study revealed the positive relationship between soft skill and teacher performance developing various soft skill training programme will give the strength to teacher directly or indirectly.

Tang Keow (2018) found that soft skill is very important tool for effective and purposeful

Teaching. Soft skill helps in delivering of effective and quality teaching which is the essential motive of teaching, Career development and enrichment to student skill. In higher education soft skill is a instrument for the development and growth of teacher and student as well.

Pachauri and Yadav (2014) examined the significance of communication skill which is the most important soft skill essential for effective teaching. It is also through communication skill that a creative and effective solutions to the problems of the students. In order to address the challenges of globalization the communication soft skills acquisition of lectures can definitely affect and improve the quality of teaching and student achievements.

Bateman and Snell (2002) define employee empowerment as the process of sharing power with employee and enhancing their confidence and ability to perform in jobs and their belief so that they are influential contributions to the organization. Empowerment motivates employee to give their honest opinion which is very beneficial for organization. Ostroff and Bowen (2000) found that skill enhancing bundles are combination of HRM practices primarily related to training and staffing that totally focus on enhancing the knowledge, skill levels of human capital, ability of workplace. Balakrishnan and Raju (2015); have stated that communication skill are backbone of faculty personality and It is essential trait for career development.

For the purpose of this study, the works of past researchers have been analysed to generate the understanding of the receptivity of HRM bundles experts have undergone systematic studies related to the area and explored the varied phases of the receptivity. Studies have been conducted in terms of factors influencing the HRM bundles, understanding the teacher attitude towards HRM Bundles and organizational

performance. Researchers have performed several experiments with respect to different age groups, gender, etc. This study is an attempt to identify the effect of HRM bundle on organizational performance.

## CONCLUSION

HRM Bundles helps management faculty/teacher to play a significant role in managing daily academic activities. The study will be dealing with effect of HRM bundles on organizational performance. Teachers are the back bone of any nation and play an important role in nation building. Higher and technical education is a big challenge for the policy makers, thus it is important to have competent and effective teaching system. Thus, success and effectiveness of teaching system is depending upon the quality of its teachers. In this changing scenario of education, it will be interesting to bring out the relationship between HRM bundle and organizational performance. There is positive relationship between HRM Bundles and organizational performance.

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## EMPIRICAL RESEARCH TO STUDY IMPACT OF BSE AND BANK NIFTY ON NSE

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*In this research paper an attempt is made to explain the behavior of National Stock Exchange with respect to Bank Nifty & BSE. This paper also examines the inter relationship between NSE and Bank Nifty & BSE. This paper examined the various research studied conducted with reference to Indian or International stock exchange context. This paper tried to find out the important factors that affect the NSE directly or indirectly. In this research two major factors have been considered were Bank Nifty & BSE. Correlation and Regression been used for analysis. SPSS software was used for analyzing data.*

**Key Words:** Regression, Bank Nifty, BSE, NSE, Stock Market.

### INTRODUCTION

This study is undertaken to find out factors affecting National stock exchange. The correlation and Multiple Regression among NSE, Bank Nifty, and BSE. National Stock exchange is a largest stock exchange in India because it has largest turnover and number of trades in the context of derivative and equities market. National Stock exchange has market capitalization of around US\$1.41 trillion. Nifty Bank Index contains most powerful and strong banking stocks. Nifty bank index represents the movement in banking stocks it determines the direction of banking stocks. It consist total 12 stocks from the banking sector which may change during time to time, in the basis of their trade on the National Stock Exchange. The Nifty Bank Index has 15.6% total share in National Stock Exchange.

The BSE SENSEX (Bombay Stock Exchange Sensitive Index), also called the BSE 30 (BOMBAY STOCK EXCHANGE) or simply the SENSEX, is a free-float market capitalization-weighted stock market index of 30 well-established and financially sound companies listed on Bombay Stock Exchange (BSE). The 30 component companies are

selected from the largest and most actively traded stocks and are representative of various industrial sectors of the Indian economy. From 1986 BSE is treated as the pulse of Indian stock market.

### REVIEW OF LITERATURE

William and Vimala (2016) examined the five private sector banks and taken equity share price of these banks listed in the National Stock Exchange. It was concluded that banking sector plays an important role in NSE. It was also concluded that movement in the closing prices was similar for all the five banks those were selected for the study.

Anbukarasi and Nithya (2014) considered metal, pharma, bank and reality stocks and find out the correlation between selected stock indices and the NIFTY. In research it was concluded that there was a significant correlation of all the selected indices. It was also concluded that the Pharma and Bank indices have a strong impact on NIFTY movements.

Swarna Lakshmi (2013) used the ARCH model to measure the volatility in NIFTY and other 11 select sectoral indices in India for the period 2008 to 2013. A conclusion was

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made on the 11 sectors volatility in comparison with the NIFTY and it was found that among the 11 sectors, the realty sector was the most volatile than any other sector. The paper also had discussions on the reasons for the same. Bhowmik. D. (2013) evaluated the framework of stock market volatility at the country level. According to the study volatility would be spurred by political turmoil or instability and high volatility reduces growth rate of the economy. Volatility also influences the volume of international trade and increases current account deficits.

Rajamohan and Muthukamu (2014) investigated the inter - relationships between stock prices and important macroeconomic variables, viz., exchange rate of rupee vis - a - vis the dollar, prime lending rate, narrow money supply, and index of industrial production. The analysis and discussion are situated in the context of macroeconomic changes, especially in the financial sector, that have been taking place in India since the early 1990s.

Pan and Lui (1999) used daily market data to study the causal relationship between stock prices and exchange rates and found that the exchange rates Granger-cause stock prices with less significant causal relations from stock prices to exchange rate. They also found that the causal relationship had been stronger after the Asian crisis.

## OBJECTIVE

- The primary objective of this paper is to study causality among NSE, Bank Nifty, and BSE.

## METHODOLOGY

**The Study:** This study is undertaken to find out factors affecting National stock exchanges. In this paper the author is presenting the correlation and Multiple Regression among NSE, Bank Nifty, and BSE. National Stock exchange is a largest

stock exchange in India because it has largest turnover and largest number of trades in the context of derivative and equities market.

**Sample and Tools for Data Collection:** Day wise data were collected from the website of NSE and BSE for a period of three years i.e. from 1st December 2014 to 1st December 2017.

**Tools for Data Analysis:** The analysis was done on SPSS software. Multiple Regression correlation and were performed to test the hypothesis.

## HYPOTHESES

$H_{01}$ : BNIFTY does not affect NIFTY

$H_{02}$ : BSE does not affect NIFTY

$H_{03}$ : Independent Variables jointly do not affect the dependent variables

## RESULTS AND DISCUSSION

$H_{01}$ : BNIFTY does not affect NIFTY

**Hypothesis is rejected.** Thus, BNIFTY does have significant impact on NIFTY. The coefficient table-4 shows that the BNIFTY does affect NIFTY. The Probability value of BNIFTY is 0.00 which is less than 0.05. Therefore BNIFTY has a significant impact on NIFTY.

$H_{02}$ : BSE does not affect NIFTY

**Hypothesis is rejected.** Thus, BSE does have significant impact on NIFTY. The Coefficient table shows that the BSE does affect NIFTY. The Probability value of BSE is 0.00 which is below 0.05. Therefore, BSE has a significant impact on NIFTY.

$H_{03}$ : Independent Variables jointly do not affect the dependent variable

**Hypothesis is rejected.** Thus BNIFTY and BSE do have a joint significant impact on NSE. The model summary table suggests that these two variables joint varies the values of NIFTY by 98.6 percent. The probability value

in ANOVA Table-4 is 0.00 which is less than 0.05, therefore, the hypothesis is rejected.

The unstandardized coefficients are the coefficients of the estimated regression model. The regression equation for this study is as follows:

$$\text{NIFTY} = (3004.031) + (.104)*\text{BSE} + (237)*\text{BNIFTY}$$

Using the above equation the value of NIFTY will be predicted on the basis of BSE and BNIFTY.

The correlation table shows correlation among NIFTY, BNIFTY and BSE over a period of time. Correlation is statistical tool which measures the degree of relationship between two and more variable. Here, by term relationship, we mean the tendency of variable to move together. The Correlation of NIFTY with BNIFTY is .992. The Correlation of NIFTY with BSE is .962. The Correlation of BNIFTY with BSE is .958. We can see that both the variables are highly correlated with NIFTY.

## CONCLUSION

In this paper, Correlation and Regression analysis is used to test relationship among the NIFTY, BNIFTY and BSE. The

corresponding day wise data have been considered. The result showed that the NIFTY is regressed by BNIFTY and BSE. BNIFTY and BSE both affects NIFTY. Result also showed that BNIFTY and BSE are highly correlated with NIFTY means that any movement in NIFTY also guarantee that there will be movement in both the independent variables.

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ANNEXURES

**Table 1: Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	BSE, BNIFTY	.	Enter

a. Dependent Variable: NIFTY  
 b. All requested variables entered.

**Table 2: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.993 <sup>a</sup>	.986	.986	102.13522

a. Predictors: (Constant), BNIFTY, BSE

**Table 3: ANOVA<sup>a</sup>**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	341339158.944	2	170669579.472	16360.819	.000 <sup>b</sup>
Residual	4923717.040	472	10431.604		
Total	346262875.984	474			

a. Dependent Variable: NIFTY  
 b. Predictors: (Constant), BNIFTY, BSE

**Table 4: Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	3004.031	46.755		64.251	.000
BSE	.104	.014	.139	7.272	.000
BNIFTY	.237	.005	.859	44.890	.000

a. Dependent Variable: NIFTY

**Table 5: Correlation**

		NIFTY	BNIFTY	BSE
NIFTY	Pearson Correlation	1	.992**	.962**
	Sig. (2-tailed)		.000	.000
	N	475	475	475
BNIFTY	Pearson Correlation	.992**	1	.958**
	Sig. (2-tailed)	.000		.000
	N	475	475	475
BSE	Pearson Correlation	.962**	.958**	1
	Sig. (2-tailed)	.000	.000	
	N	475	475	475



## EXCHANGE RATES MOVEMENT AND STOCK MARKET RETURNS: A STUDY OF INDIAN STOCK MARKET

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*The study analyzes the dynamism of exchange rates movements and stock market returns. S&P CNX Nifty Index were used to represent the Indian Stock Market. Daily closing values of S&P CNX Nifty and Exchange Rates were used for a period of 5 years 8 months from 1 April 2013 to 30<sup>th</sup> November, 2018. Natural returns were calculated by taking log difference changes in the values of the variables under study. Correlation Analysis, Regression Analysis, Johansen Co-integration Test and Granger Causality Test were used to find short run and long run relationship between the selected variables.*

**Key Words:** Exchange Rate; Indian Stock Market; S&P CNX Nifty.

### INTRODUCTION

The recent economic reforms, financial liberalization and globalization in India have fetched a good deal of changes in the financial functioning of Indian economy. The advent of floating exchange rates, liberalization of capital account, capital account convertibility, reduction in customs duties, opening up of current account, 24-hour screen based global trading and innovated internationally traded financial products led to the global integration of domestic and foreign financial markets. It has opened up new opportunities but simultaneously exposed the financial system, especially the stock market to different significant risks. The gradual abolition of foreign exchange controls in emerging economies like, India has opened the possibility of international investments and portfolio diversifications. At the same time adoption of more flexible exchange rate regimes has increased the volatility of foreign exchange markets and the risk associated with such investments.

The foreign exchange market and the stock market are vital for the financial system of any country. Exchange rate plays a vital role

for the economic development of the nation. It is the source of external funds and act as a channel between risk and investment. The fluctuation of exchange rate between currencies may be assigned with the economic principle of demand and supply. Speculations of foreign exchange traders about the futures of particular currency decide the demand for a specific currency. Exchange rate fluctuations may have an impact on the investment in related stock market. So, the present study analyses the dynamic relationship between exchange rates movements and stock market returns. The study explores the long-run and short-run causal relationship between the exchange rates and stock market returns. As US Dollar is a prominent currency for foreign trade, the exchange rate of rupee and US Dollar has been taken for the study. S&P CNX Nifty Index is a bench marking index hence it is used to measure the stock market returns.

### Foreign Exchange Market

The Foreign Exchange Market (FOREX Market) is a world wide isolated marketplace for the swapping of currencies. FOREX market includes all facets of buying, selling

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and swapping currencies at recent or determined prices. The foreign exchange market does not regulate the relative morals of different currencies, but sets the present market price as the worth of one currency against another.

### S&P CNX Nifty Index

Standard & Poor's CRISIL NSE Index 50 or S&P CNX Nifty nicknamed Nifty 50 or simply Nifty is the leading index for large companies on the National Stock Exchange. It comprises of 50 stocks of large companies accounting for 23 sectors of the Indian economy. Nifty is used for variety of purposes such as benchmarking fund portfolios, index funds and index based derivatives ([www.nseindia.com](http://www.nseindia.com)).

## REVIEW OF LITERATURE

In order to investigate the dynamic relationship between stock and exchange rate for six Asian countries a study was conducted over the period 1989 to 2003. The result explained that financial variables were not co-integrated. Granger Causality Test showed the bi-directional causality between the series in Indonesia, Korea, Malaysia and Thailand. The study also revealed a significant negative relation between the stock returns and the exchange rate for all the countries except Thailand (Doong, et., al., 2005). Dynamic linkage between exchange rate and stock price of seven East Asian Countries was investigated for year 1988 to 1998. Study found that before the Asian crisis, there was a bi-directional causal relationship for Hong Kong and a uni-directional causal relationship from exchange rates and stock prices for Japan, Malaysia and Thailand and from stock price to exchange rate for Korea and Singapore (Pan, et al., 2007).

Relationship between stock market volatility and exchange rate in Pakistan was researched. Variables used were US \$ Exchange Rate and KSE 100 Index. A

negative correlation between PKR-USD and KSE- 100 index was observed. Granger Causality Test revealed that there exist a relationship between KSE 100 and The US \$ Exchange Rate (Waseem, 2014). The return relationship between the Indian stock market and foreign exchange rates was studied by Kumarasamy and Chellasamy (2017). The study was based on secondary data collected for the period of five year from January 2011 to December 2015, covering 1203 available harmonized days with closing prices of each variable. It was found that both the time series, stock and exchange rate returns, were stationary at the level form itself and correlation confirmed that there was an inverse relationship between Indian stock market returns and FOREX rate returns during the studied tenure.

## OBJECTIVES

The objectives of the study are as follows:

- To check the normality of exchange rates and S&P CNX nifty returns.
- To study the relationship between exchange rate and S&P CNX nifty returns.
- To study the impact of exchange rates changes on S&P CNX nifty returns.
- To check the Co-integration among exchange rates and S&P CNX nifty returns.
- To study cause and affect Relationship between exchange rate and S&P CNX nifty returns.

## HYPOTHESES

To test the above objectives following null hypotheses were made:

- $H_{01}$ : Daily returns of exchange rate and S&P CNX nifty returns are not normally distributed.
- $H_{02}$ : There exist no significant

relationship between returns of exchange rate and S&P CNX nifty returns.

- $H_{03}$ : Daily returns of exchange rate have no significant impact on S&P CNX nifty returns.
- $H_{04}$ : There exists no co-integration among daily returns of exchange rate and S&P CNX nifty returns.
- $H_{05}$ : Daily returns of exchange rate do not granger cause S&P CNX nifty returns.
- $H_{06}$ : S&P CNX nifty returns do not granger cause daily returns of exchange rate.

## METHODOLOGY

**The Study:** The study empirically tested dynamism of relationship between exchange rate returns or movements and S&P CNX Nifty returns in equity cash segment. The exchange rate of rupee and US Dollar was taken for the study. S&P CNX Nifty Index is a bench mark index that was used to measure the stock market returns.

**The Sample:** The present study is based on secondary data. Data of exchange rates and S&P CNX Nifty returns in cash segment were used. The data were collected from websites like <http://www.nseindia.com>, <http://www.sebi.com>, and [yahoofinnc.com](http://yahoofinnc.com). Daily closing values of exchange rates and S&P CNX Nifty Index in cash segment were taken from 1<sup>st</sup> April 2013 to 30<sup>th</sup> November, 2018 for the study.

**Tools for Data Analysis:** Descriptive statistics was used to check the normality of the data series. Correlation Analysis was carried out to find and study the relationship between exchange rate returns and S&P CNX nifty returns. Regression analysis was used to study the impact of exchange rate returns on S&P CNX nifty returns. Johansen Co-integration Test was carried on to analyze

long term relationship between the variables involved and granger causality Test was applied to determine the directional relationship between the variables.

## RESULTS

### Descriptive Statistics

The descriptive statistics can be interpreted to examine the normal distribution of returns. Values for Skewness at 0 and Kurtosis at 3 revealed that the observed distribution is normally distributed. Jarque-Bera Test is also a statistics for testing whether a series is normally distributed or not. Under the normality in distribution, the Jarque-Bera was equal to 0. Table- 1, showed that on application of descriptive statistics on daily returns of exchange rate and S&P CNX nifty index returns. It was found that the value of Skewness and Kurtosis were not equal to 0 and 3 respectively. The value of Jarque-Bera was not equal to 0. So, the null hypothesis,  $H_{01}$ : Daily returns of exchange rate returns and S&P CNX nifty returns are not normally distributed was accepted. It indicates that the daily returns of exchange rate and S&P CNX nifty index returns were not normally distributed during the study period.

### Correlation Analysis

Karl Pearson coefficient of correlation was being applied to study the relationship between exchange rate and S&P CNX Nifty returns at 5% level of significance. As per Table-2 and analysis, it was conferred that, exchange rate returns had negative correlation ( $-0.3945 < -0.5$ ) with S&P CNX Nifty Returns. Thus, the null hypothesis, i.e.,  $H_{02}$ : There exist no significant relationship between returns of exchange rate and S&P CNX nifty returns was rejected.

### Regression Analysis

The regression analysis studies the impact of exchange rate returns on S&P CNX Nifty index returns as shown in Table-3 below. It was observed that the value of  $r^2$  was

0.155685, indicating 15.56 percent variations in S&P CNX Nifty Index were due to changes in exchange rates. S&P CNX nifty index when studied as dependent and exchange rates as independent variable then the p value being  $< 0.05$  indicated that there was an impact of independent variables on dependent variables and thus the null hypothesis i.e.,  $H_{03}$ : Daily returns of exchange rate have no significant impact on S&P CNX nifty returns is rejected on the basis of P value. The regression model needs to be improved by incorporating further other macroeconomic variables as its present good fit ( $r^2 = 0.155685$ ) is low.

### Johansen Co-integration Test

Tables 4.a. and 4.b. present results of Johansen Co-integration Test. Unrestricted Co-integration Rank Test (Trace) stated that, the studied variables had p values  $< 0.05$  in all the cases of Co-integration equations. Unrestricted Co-integration Rank Test (Maximum Eigen Value) also stated that the all studied variables had p values  $< 0.05$  in all the cases of Co-integration equations. Hence, the null hypothesis,  $H_{04}$ : There exists no Co-integration among daily returns of exchange rate and S&P CNX nifty returns was accepted. It means that the variables were not co-integrated with each other i.e., among daily returns of exchange rate and S&P CNX nifty returns. So, it clarified that exchange rate returns and S&P CNX nifty returns had no long term relationship and equilibrium with each other and they moved independently in long run.

### Granger Causality Test

Granger Causality Test, as shown in Table-5, indicated the directional bilateral relationship among the studied variables. The study inferred that the p value was  $< 0.05$  in the case 1 at lags ranging from 1 to 20. This proved that in the null hypothesis:  $H_{05}$ : Daily returns of exchange rate do not granger cause S&P CNX Nifty returns was rejected.

It showed that returns of exchange rate granger cause S&P CNX Nifty returns. On the other hand, in case 2, p value  $> 0.05$ , at lags ranging from 1 to 20. This proved that in the null hypothesis:  $H_{06}$ : S&P CNX Nifty returns do not granger cause daily returns of exchange rate was accepted. It showed that S&P CNX Nifty Returns do not granger cause Returns of Exchange Rate.

### DISCUSSION

Non-existence of positive co-relationship may also be because of Indian markets not yet being highly sensitive to the new set of information. Also the Indian companies comparatively may not be exposed to a lot of FOREX exposure, like companies in developed countries are. In reality, stock prices and exchange rate are affected by a myriad of factors such as fiscal and monetary policy, interest rates, inflation, money supply, political factors, international events, fundamental performance, FOREX reserves, BOP, exchange control, etc. Probably that is why regression model appeared to be low fit. High volatility introduced in the exchange market due to floating rate regime sometimes nurtures the speculative activities in short run makes it difficult to pinpoint the precise effect of exchange rates on stock prices in long term. It was found that Indian stocks are highly sentiment driven and stocks of certain companies may change for no reason. There are few qualitative factors that influence stock prices like speculation and investor confidence level. So, S&P CNX Nifty returns do not Granger cause returns of exchange rate seems to be justified.

### CONCLUSION

Descriptive statistics indicated that the daily returns of exchange rate and S&P CNX Nifty Index returns were not normally distributed. Correlation analysis indicated negative correlation between returns of exchange rate and S&P CNX nifty returns; regression Analysis depicted that daily returns of

exchange rate have significant impact on S&P CNX nifty returns on the basis of p value; Johansen Co-integration test exhibited no Co-integration among daily returns of exchange rate and S&P CNX nifty returns; Granger causality test revealed daily returns of exchange rate Granger cause S&P CNX nifty returns but S&P CNX nifty returns do not granger cause returns of exchange rate.

### SUGGESTIONS

On the basis of existence of negative correlation between returns of exchange rate and S&P CNX nifty returns, investors may take note while investing either in stock market or foreign currency. For academicians it is suggested to find new variables or intervening variables to improve the regression model holistically. For long term investments a note of non existence of long term relations between the two variables i.e., returns of exchange rates and S&P CNX nifty returns. Hence in long term portfolio, both types of investments may be put together. One directional causality i.e. returns of exchange rates Granger cause S&P CNX Nifty returns is observed probably because stock market returns is an internal variable of the economy and exchange rate is an external variable to the economy that works

more on powerful external variables of the other countries.

### IMPLICATIONS

It is implicated that there is an existence of very low but negative correlation between exchange rate and S&P CNX Nifty. This may be used while shifting or changing investment portfolio. The regression model needs an improvement, opening new vistas for research. In long run exchange rate and S&P CNX Nifty works independently. Exchange rate may affect stock market, but stock market does not affect exchange rate.

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## ANNEXURE

**Table 1: Results of Descriptive Statistics**

Variables	EXCHANGE_RATE	NIFTY_INDEX
Skewness	0.465053	-0.390506
Kurtosis	13.34362	5.750197
Jarque-Bera	6246.638	473.3856
Probability	0	0
Observations	1390	1390

**Table 2: Results of Correlation Analysis**

Variables	EXCHANGE_RATE(USD)	NIFTY_INDEX
EXCHANGE_RATE(USD)	1	-0.394569481
NIFTY_INDEX	-0.394569481	1

**Table 3: Results of Regression Analysis**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.00061	0.000225	2.713165	0.0067
EXCHANGE_RATE(USD)	-0.807529	0.050477	-15.99801	0
R-squared	0.155685	Mean dependent var		0.000464
Adjusted R-squared	0.155077	S.D. dependent var		0.009117
S.E. of regression	0.00838	Akaike info criterion		-6.724508
Sum squared residuals	0.097471	Schwarz criterion		-6.716973
Log likelihood	4675.533	Hannan-Quinn criter.		-6.72169
F-statistic	255.9364	Durbin-Watson stat		1.962875
Prob. (F-statistic)	0			

**Table 4: Results of Johansen Co-integration Test****Table 4.a.: Unrestricted Co-integration Rank Test (Trace)**

Hypothesized No. of CE(s)	Eigen Value	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.192419	514.0795	15.49471	0.0001
At most 1 *	0.145693	218.088	3.841466	0
At most 2 *	0.192419	514.0795	15.49471	0.0001

Trace test indicates 2 Co-integrating equation(s) at the 0.05 level

\* denotes acceptance of the null hypothesis at the 0.05 level.

\*\*MacKinnon-Haug-Michelis (1999) p-values.

**Table 4.b.: Unrestricted Co-integration Rank Test (Maximum Eigen Value)**

Hypothesized No. of CE(s)	Eigen Value	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.192419	295.9915	14.2646	0.0001
At most 1 *	0.145693	218.088	3.841466	0

Max-Eigen Value test indicates 1 co-integrating equation at the 0.05 level

\* denotes acceptance of the null hypothesis at the 0.05 level.

\*\*MacKinnon-Haug-Michelis (1999) p-values.

**Table 5: Results of Granger Causality Test**

Null Hypothesis:	Obs.	F-Statistic	Prob.	Lag	Accepted/Rejected
Case 1: EXCHANGE_RATE does not Granger Cause NIFTY_INDEX	1380	4.23239	0.0003	06	Rejected
Case 2: NIFTY_INDEX does not Granger Cause EXCHANGE_RATE		1.93886	0.0715	10	Accepted



## FACTORS AFFECTING THE BUYER'S ONLINE SHOPPING DECISION: AN EMPIRICAL ANALYSIS

Riddhi Agrawal\*, Siddhi Agrawal\*\*

*This paper is trying to identify the factors affecting the online shopping decisions of the buyers. The factors may be in form of buyer's desire from the specific shopping sites. Generally the variables like preference and choice, availability of resources, location, comfort of website, purchase options, payment options, security while performing online transactions and many more were measured on five point Likert scale. Four different factor were extracted. The main objective of the study is to know the influencing factors for online shopping for the people of North Gujarat. The study examines whether any single factor affect shopping. Through this study researchers attempt to know consumer's online buying perception and whether it is affected by some specific factors.*

**Key Words:** Online Shopping, Buying Perception, North Gujrat.

### INTRODUCTION

Online shopping is performed under the influence of many factors. There are many factors like preference, choice, rate (price), discounting, variety of option, comparison between the options, etc. that affect buying decisions during online shopping. This study is undertaken to know the online buying perception that is affected by some specific factors. The study is conducted in North Gujarat region. In a North Gujrat region of India, buyers are doing online shopping generally with the past experience and influenced by online buying performed by their relatives and friends. The study took an individual's opinion about the online shopping to explore factor affecting this online act. It also tried to know about the safety precautions of buyers, their payment methods, choice upon particular website, reliability of the transaction regarding fraud, etc. The study also focused to know about the policy of e-commerce companies for the online transactions, customer services and about the return policy.

### REVIEW OF LITERATURE

Bhagat (2015) studied that factors influencing purchase and non-purchase behaviour in online shopping. Due to retail shopping mindset of purchasing, person attracts towards the non-purchasing behavior. Another factor of non-purchasing is logistic. Other purchase factors were same price, promotional scheme, etc. The study said that if companies plan to develop an online market then they should try to provide the comfort of offline retail shopping. Liu (2004) has spotted dropout purchaser for the first time in research. People are having a common tendency of buying online by first checking for all available options, then comparing prices and then after applying promotional codes or offer, they make purchase. Thus, online shopping websites need to compete with offline retailers by keeping people tendencies in mind.

According to Shergill et al. (2005) buyers of New Zealand are having different buying perception where mainly four factors are affecting. First factor is 'Website reliability/

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fulfillment' which has the highest score. Second one is 'Customer service'. Third is 'Website design' i.e. its aesthetic appeal and fourth is 'Website security' with a lowest rank. The study of Park (2007) is focused with customer loyalty, although there is no certain style or pattern for online shopping found. The shopping is not conceptualized but it is more personalized so, it is being difficult to draw any favoring or identification of perception for online buying. The study also showed the micro-environmental change in style as in an emerging market, collectiveness of all together is being out of reach.

According to Wani et al. (2013) as a basic comparison, 75 percent of the British respondents had shopped online as compared to 46 percent of the Indian respondents. This shows the very less participation of Indian in online shopping in comparison to British. Indian consumers showed higher perceived risks in all the constructs, however only financial/privacy and time/convenience risks were significantly higher. This implies that Indian consumers perceived higher risks towards online shopping as compared to UK counterparts. Delone et al. (2004) said that information technology and internet has large scope to make effective business operations and for that companies are even investing large. So in the article it is suggested to adopt DeLone and McLean information system to be successful in online transactions and to measure challenges of the new business over Internet.

## OBJECTIVE

The objective of the study is to explore factors affecting buyer's online shopping decision in North Gujarat.

## METHODOLOGY

**The Study:** The present study is exploratory in nature and undertaken for collecting more online buyer's information in limited time from North Gujarat region.

**The Sample:** In the present study, the researcher has selected the online buyers of North Gujarat as its population. Sample size for the present research work was 1060. The researcher has covered the villages, talukas and districts of the Mahesana, Patan, Banaskantha and Sabarkantha. Data were collected from the said districts and from different age groups, different income groups and different gender.

**Tools for Data Collection:** The present research is based on primary data. The researcher has used structured-questionnaire for collecting information from the respondents by visiting personally. The researcher has also interviewed the respondents personally. The questionnaire included 38 items which were measured on 5-point Likert scale.

**Tools for Data Analysis:** Factor analysis were used for analyzing the collected data using SPSS software. Two basic reasons using factor analysis are (i) to simplify a set of data by reducing a large number of measures (in which some may be interrelated causing multicollinearity) for set of respondents to a smaller manageable number of factors (which are not interrelated) that still retain most of the information found in the original data set and (ii) to identify the underlying structure of the data in which a large number of variables may really be measuring a small number of basic characteristics of the sample.

**Bartlett Test of Sphericity:** Bartlett's test of Sphericity is a test statistic used to examine the hypothesis that the variables are uncorrelated in the population. In other words, the population correlation matrix is an identity matrix; each variable correlates perfectly with itself but has no correlation with the other variables under the study.

**Kaiser-Meyer-Olkin Test for Sampling Adequacy:** The Kaiser-Meyer-Olkin (KMO) measure for sampling adequacy is an index used to examine the appropriateness of

factors analysis. It compares the magnitudes of observed correlation coefficients to magnitude of partial correlation coefficients. The KMO value varies from 0 to 1. High value (between 0.5 to 1.0) indicates factor analysis is appropriate. Small values of KMO Statistic indicate that correlations between pairs of variables cannot be explained by other variables, and hence, factor analysis is not suitable.

**Communalities:** Communality is the amount of variance a variable explain with all the factors being considered. This is also the percentage of total variance explained by the common factors. The method selected for conducting factor analysis here is Principal Component Analysis. In this method, the total variance in the data is considered. The initial communalities for Principal Component Analysis are 1. However, the primary concern is the extracted communalities, which are achieved after extraction of factors. The communalities can be found mathematically by squaring the factor loading of a variable across all factors and then summing these figures. This term may be interpreted as a measure of uniqueness. If the communalities value of a particular variable found less than 0.5 (i.e. 50%) then it was removed and remaining variables were consider for the factor analysis.

**Variance Explained:** It is required that the scale constructed and the components extracted should be able to explain maximum variance in the data. For this study, an analysis of the Eigen values is required. Eigen value represents the total variance explained by each factor. However, it is required that the maximum amount of variance should be explained in minimum number of components – for this reason extraction of the components is required. Only those factors are extracted for which Eigen values are greater than one.

## RESULTS OF FACTOR ANALYSIS

On the basis of data collected from the 1060 respondents on 38 different variables, researcher gone through the communalities and revised communalities. Based on the result where each variable was having independent strength means the variable with communalities extraction value more than 0.5 is considered for factor analysis. The extraction value of five variables found less than 0.5 (i.e. 50%) and therefore they were removed and remaining 33 variables were finally considered for the factor analysis. The researcher has finally came out with four factors named as Factor-1: Risk Perception, Factor-2: Website orientation, Factor-3: Value Orientation, and Factor-4: Online Shopping Orientation (Table 5). These factors are explained below:

### Factor-1: Risk Perception

Total ten variables were clubbed under the factor-1. These are 'Online Shopping is not safe' (0.765), 'It is risk for me to give identifying and credit card information' (0.705), 'The product may come different from the website' (0.646), 'Delivery of the product might be not ever' (0.720), 'I don't have enough information about purchasing over the internet' (0.694), 'I prefer going shopping with someone rather than alone' (0.574), 'I don't have enough access to internet' (0.766), 'I do not need to buy over the internet' (0.737), 'I don't want to wait for the product' (0.663), and 'Repair/maintenance/Installation is difficult' (0.543). The group of these variables is named as 'Risk Perception' as each individual variable shows inbuilt risk toward buying online. Each buyer is having their own perception toward shopping which involves influence of many different parameters related to risks which are covered in this factor-1 of the analysis. The extracted factor explains 19.47 percent of variance which is highest among the factors.

### Factor 2: Website Orientation

The nine variables were identified under the factor-2. These are 'Functional design' (0.702), 'Visual and auditory content' (0.768), 'Communication with the company' (0.778), 'Communication with other users' (0.741), 'Links to other websites' (0.719), 'Products and services sold' (0.693), 'Website security (Financial Security)' (0.785), 'Popup chat window for help' (0.723), and 'Aesthetic appeal' (0.723). The group of these variables is named as 'Website Orientation' as each individual variable shows separate characteristics of website. With user friendly website layouts/orientation, the buyers attracted towards the shopping site. The extracted factor explains 17.50 percent of variance which is second highest among factor.

### Factor 3: Value Orientation

The eight variables were identified under the factor-3. These are 'Give full product description' (0.647), 'Comparison between options is easy' (0.711), 'Provide security assurance (document)' (0.644), 'Grater customer service' (0.581), 'Clarity on terms and conditions' (0.614), 'Satisfaction on speed of product delivery' (0.692), 'Availability of product at cheaper rate' (0.616), and 'Options of choice' (0.597). The group of these variables is named as 'Value Orientation' as it is directly co-related with the customer's value on the ground of their satisfaction/customer's service. The extracted factor explain 14.87 percent of variance which is good number to indicate consumers are concern with surety of product.

### Factor 4: Online Shopping Orientation

The six variables were identified under the factor-4. These are 'I love shopping online' (0.446), 'Product options can be compared more easily' (0.585), 'Online shopping is safe' (0.570), 'Cyber laws are strong enough' (0.437), 'Satisfied with return policy' (0.660), and 'Availability of your location Pin code'

(0.475). The group of these variables are named as 'Online Shopping Orientation' as here parameter indicating orientation toward online shopping among buyers. The extracted factor explains 8.72 percent of variable which shows the preference of online shopping.

## DISCUSSION AND CONCLUSION

Ten variables were grouped under Factor-1: Risk Perception. The most common risk found was unavailability of internet excess all the time (may be with poor internet connectivity and data loss). Another risk was a general belief on cyber safety during online shopping especially related to online payment safety. It has also found that in North Gujarat region buyers usually trend to shop together rather than alone which attracts fewer buyers towards online shopping. And buyers are not getting proper response by shopkeepers for installation or repair or maintenance although it is a part of the online shopping condition. So, these are the major risk factors that affect online shoppers.

Nine variables were grouped into 'Website Orientation' as factor-2. The e-commerce sites must be proper designed with strong safety measures. For online financial transactions, many companies have started using secure sources. Another important feature of the website orientation is availability of chat box which help customers during their shopping by solving the queries and provide proper guidance towards the product which may or may not be there on the product configuration and other useful information. Once the product sold, companies are not taking much interest in the customer's service hence buyers are often feeling trouble after purchasing online. It is also found in website orientation that user-friendly design also affects the most on the buyer's decision.

Eight variables were grouped into 'Value Orientation' as factor-3. Online shopping

provides a value orientation advantage, as one can easily compare among the price, product features, and other configuration while doing online shopping. Even there are many specific websites who provides the comparison between available options. Also it was found that in the promised time duration product which is purchased online is delivered at the given address without any hassle. During shopping online customers often not get the variety of option as per choice and for that they need to make keen search to satisfy their demands. As online shopping gives an option to select available products from variety of online platforms. The customer service is also one of the important issue in online shopping.

Six variables were grouped into the fourth factor named as 'Online Shopping Orientation'. Online shopping buyers seems to be satisfied with the return policies of online purchased products. Various competitive websites are offering variety of products, so now the buyers may have more options to choose. In North Gujarat still buyers are not much comfortable to shop online. So here buyers are not actually much liking to shop online but they use online shopping just as an option for unavailable products in the market. Another most important threat is a threat of cyber crimes as our cyber laws are not much strong.

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## ANNEXURES

**Table 1: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.960
Bartlett's Test of Sphericity	Approx. Chi-Square	2.476E4
	Df	703
	Sig.	.000

**Table 2: Case Processing Summary**

		N	percent
Cases	Valid	1060	100.0
	Excluded <sup>a</sup>	0	.0
	Total	1060	100.0

a. List wise deletion based on all variables in the procedure.

**Table 3: Reliability Statistics**

Cronbach's Alpha	N of Items
.870	4

**Table 4: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	percent of Variance	Cumulative percent	Total	percent of Variance	Cumulative percent	Total	percent of Variance	Cumulative percent
1	14.164	42.921	42.921	14.164	42.921	42.921	6.426	19.473	19.473
2	3.234	9.801	52.721	3.234	9.801	52.721	5.776	17.502	36.974
3	1.587	4.810	57.532	1.587	4.810	57.532	4.909	14.876	51.850
4	1.005	3.045	60.577	1.005	3.045	60.577	2.880	8.727	60.577
5	.804	2.437	63.013						
6	.734	2.224	65.238						
7	.702	2.128	67.366						
8	.677	2.052	69.418						
9	.640	1.939	71.357						
10	.623	1.887	73.244						
11	.595	1.803	75.047						

12	.569	1.723	76.770						
13	.557	1.687	78.457						
14	.535	1.622	80.079						
15	.513	1.554	81.633						
16	.486	1.471	83.105						
17	.469	1.420	84.524						
18	.424	1.284	85.809						
19	.419	1.269	87.078						
20	.410	1.243	88.321						
21	.398	1.206	89.527						
22	.385	1.166	90.694						
23	.353	1.071	91.765						
24	.339	1.027	92.792						
25	.329	.997	93.788						
26	.312	.947	94.735						
27	.295	.895	95.630						
28	.283	.857	96.486						
29	.258	.782	97.269						
30	.249	.754	98.022						
31	.229	.694	98.717						
32	.227	.687	99.404						
33	.197	.596	100.000						
Extraction Method: Principal Component Analysis.									

After Communalities there was variance explained and afterwards with rotated component matrix

Table 5: Composition of each Factor Identified in Factor Analysis

Factor	Items (Code)	Factor Loading
Factor 1 Risk Perception	Online Shopping is not safe (A 12)	.765
	Its rist for me give identifying and credit card information (A 14)	.705
	The product may come different from the website (A 15)	.646
	Delivery of the product might be not ever (A 16)	.720
	I don't have enogh information about purchacing over the internet (A 17)	.694
	I prefer going shopping with someone rather than alone (A 19)	.574
	I don't have enough access to interent (A 20)	.766
	I do not need by buy over the interent (A 21)	.737
	I don't want to wait for the interent (A 22)	.663
	Repair/ Maintenance/ Installation is difficult (A 28)	.543
Factor 2 Website Orientation	Functional design (A 30)	.702
	Visual and auditory copntent (A 31)	.763
	Communication with the company (A 32)	.778
	Communication with other users (A 33)	.741
	Links to other websites (A 34)	.719
	Products and services sold (A 35)	.693
	Web Site security (Financial Security) ( A 36)	.785
	Popup chat window for help (A 37)	.723
	Aesthetic appeal (A 38)	.723
Factor 3 Value Orientation	Give full product description (A 4)	.647
	Comparison between options is easy (A 5)	.711
	Provide security assurance (document) (A 6)	.644
	Greater Customer service (A 7)	.581
	Clarity on terms & Conidtions (A 8)	.641
	Satisfaction on speed of product delivery (A 9)	.692
	Availability of product at cheaper rate (A 10)	.616
	Options of choice (A 11)	.597
Factor 4 Online Shopping Orientation	I love shopping online (A 18)	.446
	Product options can be comapred more easily (A 24)	.585
	Online shopping is safe (A 25)	.570
	Cyber laws are strong enough (A 26)	.437
	Satisfied with return Policy (A 27)	.660
	Availability of your location pin code (A 29)	.475

## FACTORS RESPONSIBLE FOR THE IMPACT OF POST PARTUM DEPRESSION ON THE PRODUCTIVITY OF FEMALE EMPLOYEES

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*Current research work is a pervasive concept as each woman on every level and in every organization faces issues related to postpartum depression sooner or later. The impact of postpartum depression can be really severe not only for an individual but as well as for the complete organization. As in most of the cases related to depression the impact is too chronic and irreplaceable. So if some resolution can be provided for the same it can still be controlled to some extent. It was an attempt to analysis the impact of postpartum depression on productivity of female employees. Regression model was applied to confirm the relationship and the findings of the research has exposed that postpartum depression significantly affects the productivity of female employees in Indian context.*

**Key words:** Post Partum Depression, Productivity, Baby Blues, Female Employees, India.

### INTRODUCTION

Post partum depression (PPD) is gaining wide attention nowadays due to the fact that although it is intangible in nature but its impact can be seen and felt in women around the globe. By the help of prior studies three classes of postpartum disorders have been identified: post-partum psychoses, non-psychotic postpartum depression and transitory "Post partum blues". The common symptoms of this disorder include; higher anxiety and anger, crying and restlessness, depression and fear, lack of concentration and unwanted thoughts, insomnia and fatigue. Postpartum depression affects about 15 percent of the women around childbirth. Postpartum depression is a disorder followed by childbirth where a female may feel very stressful in order to navigate new role, balancing care for herself and an infant, it can be filled up with mixed emotions as it can be overwhelming as well as exhausting, in this medical condition a female may also feel guilty or ashamed. It is also termed as "baby blues" that usually begins within the first two or three days after delivery, and may last for up to two weeks.

The contributing factors may include physical, environmental factors and emotional factors. The physical factors may include hormonal changes that occur while giving birth to a baby. Sleep deprivation is also considered as a prominent physical factor. Apart from physical factors emotional factors also play a major role in PPD. These factors may include stress and anxiety due to the new responsibilities and a completely new and different role. The environmental factors may include the level of education of a new mother, the quality of physical environment provided to that female, the kind of social environment, whether the female is provided the, power or choice to decide the routine and major decisions of her life and the kind of communication that is done by the female.

Postpartum depression is a non-psychotic depressive experience. It is believed that by 2020 depression will become the second leading cause of disability worldwide. In recent years this concept has received a great attention in medical literature and other streams is now the subject of discussion in state legislatures. It is a step by step process

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and it follows different stages. According to Kubler-Ross, the six stages of postpartum depression are: Denial, Anger, Bargaining, Depression, Acceptance and PTSD. These stages are explained as follows:

1. **Denial:** In this stage a lady might think that life makes no sense and has no meaning. It is common in this stage to wonder how life goes on in this different state and a lady is usually in a shock because life has changed in an instant. In some cases one might also feel that the news is incorrect. For example, if you receive news on the death of a loved one perhaps you cling to the false hope that they identified the wrong person. In this stage you are not living in the “actual reality” rather you are living in the “preferable reality”. It is the denial and shock in which you cope up and survive the grief event.
2. **Anger:** Everyone wonders why it is happening with me. Nobody understanding what I am going through. I don't deserve this. I don't want to have medication. I don't want to go for any therapy. I don't want to visit a doctor that often.
3. **Bargaining:** In this stage the lady tries to compromise with the situation. She thinks that if I will exercise more and eat better I will be fine. If I will pray more this fear will definitely go.
4. **Depression:** I should leave my family. I am bringing everyone down. “My baby doesn't deserve a mother like me “such thoughts start haunting a lady.
5. **Acceptance:** In this stage a lady finally realise that whatever is happening to her is not normal and she cannot ignore it anymore. She starts realising that she can take medication or go to therapy or do whatever is necessary

for her health and of her family. She finally accepts the fact that Post partum depression and anxiety are temporary and treatable with professional help.

6. **PTSD:** In this stage a lady feels that postpartum depression will return. She starts feeling that she has lost confidence in herself.

Each woman brings with her a complex history of relationships filled with hardships, misunderstandings, mistaken beliefs, and possible unintentional mistakes. Each mothers' experience is a novel story of how this child or children were conceived. And when this story creates a dilemma in her mind that whether she is really ready for this new responsibility or whether she can cope up with this new phase of life, all that she encounter is a number of questions and the presence of these questions is called as Post-Partum Depression (PPD). It is not just a phenomenon or just a medical condition, it can rather be a major emotional as well as psychological trauma for a female.

Medically or clinically it can be classified in the following manner, The first stage is called as “Baby Blues” which occurs few days after the birth of the baby and is characterised by sadness, tearfulness and irritability. Research has estimated that approximately 6.5 percent to 13 percent of women develop depressive symptoms within the first postpartum year. Signs and symptoms of baby blues — which last only a few days to a week or two after your baby is born may include: Mood swings, Anxiety, Sadness, Irritability, Feeling overwhelmed, Crying, Reduced concentration, Appetite problems, Trouble sleeping, etc.

The second stage is termed as post-partum psychoses: which is a rare condition that typically develops within the first week after delivery — the signs and symptoms are severe. Signs and symptoms may include:

Confusion and disorientation, Obsessive thoughts about your baby, Hallucinations and delusions, Sleep disturbances, Excessive energy and agitation, Paranoia, Attempts to harm yourself or your baby. Postpartum psychosis may lead to life-threatening thoughts or behaviours and requires immediate treatment.

The third stage is referred as non-psychotic post-partum depression. People with this type of depression may get angry for no apparent reason. Or they may spend a lot of time by themselves or in bed, sleeping during the day and staying awake at night. A person with this depression may neglect appearance by not bathing or changing clothes. Or that person may be hard to talk to. Perhaps he or she barely talks or else says things that make no sense.

People with other mental illnesses, such as schizophrenia, also experience psychosis. But those with psychotic depression usually have delusions or hallucinations that are consistent with themes about depression (such as worthlessness or failure), whereas psychotic symptoms in schizophrenia are more often bizarre or implausible and have no obvious connection to a mood state (for example, thinking strangers are following them for no reason other than to harass them). People with psychotic depression also may be humiliated or ashamed of the thoughts and try to hide them. Doing so makes this type of depression very difficult to diagnose. The most important thing about Post-partum depression is that it is intangible in nature. But its impact can be seen and felt on the women around the globe.

### **Conceptual Development:**

#### **Factors affecting post partum depression:**

Although post partum depression is framed by a collection of enormous factors, but the following factors can be considered as important:

**Emotional Factors:** These factors affect the self esteem of a woman. A new mother usually requires a high level of support and post partum depression occurs due to lack of social support. A new mother is usually vulnerable to high level of anxiety and stress. Specially in the cases of cesarean delivery, a new mother requires more attention and love. The amount of time a mother is in the hospital also affects her emotional well being. The new mother is not used to all these changes and thus, it affects the emotional well being of a new mother.

**Physical Factors:** The physical factors may include physical pain from the delivery or the deprivation of sleep. Sometimes a new mother is also conscious about the physical attractiveness after the delivery.

**Environmental Factors:** Environmental factors may include any happening or event that may critically affect the new mother. It may include death of a loved one, loss of the baby, financial troubles of high stress situations.

#### **Post Partum Depression (PPD):**

Each woman brings with her a complex history of relationships filled with hardships, misunderstandings, mistaken beliefs, and possible unintentional mistakes. Each mothers' experience is a novel story of how this child or children were conceived. And when this story creates a dilemma in her mind that whether she is really ready for this new responsibility or whether she can cope up with this new phase of life then she encounters a number of questions and the presence of these questions is called as Post Partum Depression. It is not just a phenomenon or just a medical condition it can rather be a major emotional as well as psychological trauma for a female.

#### **Productivity:**

Productivity in simple terms means a measure of efficiency. Productivity can be

measured by the number of units produced or the number of hours spent on the job or by the feedback of the clients but when it comes to any organization the main objective is to enhance the overall productivity of the organization.

## **LITERATURE REVIEW**

Postpartum non-psychotic depression is the most common issue while a woman is expecting a baby and data shows that it affects approximately 10-15 percent of women and as such represents a considerable public health problem affecting women and their families (Warner et al., 1996). The effects of postnatal depression on the mother, her marital relationship, and her children make it an important condition to diagnose, treat and prevent (Robinson and Stewart, 2001). With a few notable exceptions, most of the relevant research into psychiatric disorders associated with childbearing has been confined to developed countries, mainly in Western Europe and North America (Kumar, 1994). Untreated postpartum depression can have adverse long-term effects. For the mother, the episode can be the precursor of chronic recurrent depression. For her children, a mother's ongoing depression can contribute to emotional, behavioral, cognitive and interpersonal problems in later life (Jacobsen, 1999).

The physiology of human pregnancy and childbirth is the same all over the world, but the event is conceptualized and structured, and hence, experienced by the mother and by her social group very differently (Kumar, 1994). It has been purported that postpartum depression simply does not exist within certain cultures. Stern and Kruckman (1983) wrote that a review of the anthropological literature revealed surprisingly little evidence of the phenomenon identified in Western diagnoses as postnatal depression. This conclusion was lent some support by

anecdotal observations in Nigeria (Kelly, 1967), South Africa (Chalmers, 1988) and India (Gautam, et al., 1982) that non-psychotic depression after childbirth is rare in such societies. However, higher maternal morbidity rates may result in under-reporting. It should be noted that these conclusions were based on observational data, and not all studies combined ethnographic field observations with formal diagnostic testing. One should also be aware of the danger of cultural stereotyping, and of the possibility that the presence of disorders such as postpartum depression in particular cultures may go unrecognized (Kumar, 1994).

Stern and Kruckman (1983) draw attention to the fact that the defining criteria for depression may vary greatly across different cultural settings, so the problem cannot simply be resolved by applying a Western concept of depression to other cultures. One of the primary aims of cross-cultural comparative research is to examine whether there are differences in clinical presentation in different settings. Cox (1999) discussed the presentation of 'Amikiro' in Ugandan women; where women express the urge to eat their baby. Whilst Western clinical interviews do not specifically question women about their desire to eat their baby, through careful questioning, as in semi structured interviews, it would be possible to detect psychological dysfunction in cultural and ethnic settings in which it has been suggested that postpartum depression does not occur. Similarly, it is important to try to find out whether observed differences in childrearing practices have a mitigating or an exacerbating influence on the possible adverse effects of maternal postnatal illness on the child's psychological development.

Large scale studies comparing rates of postnatal depression across cultures have found similar rates to those reported in Western Europe and North America. Cox's

(1983) Ugandan study has shown that African mothers become depressed at a similar rate to those in developed nations. Dennerstein et al. (1989) and Thorpe et al. (1992) have found similar rates of depression after childbirth in comparisons of Australian, Italian and Dutch mothers and of Greek and English mothers, respectively. Jadresic et al. (1992) reported similar prevalence rates in Chilean women, and Shah et al. (1971) found that a quarter of women attending a well baby clinic in India were diagnosed as suffering from “neurotic disorders with a post-partum onset” (and hence likely to be depressive disorders). One does need to consider the possible limitations of using existing assessment tools within different ethnic groups. For example, Watson and Evans (1986) compared three ethnically different groups of childbearing women using the General Health Questionnaire (GHQ). They found that some questions e.g. ‘have you ever felt that life isn’t worth living’ were perceived as meaningless by Bengali mothers who could not conceive of such a possibility.

It is well established that there are marked cultural differences in the way that psychiatric symptoms are presented to health professionals (Kleinman, 1996) with some groups more likely to somatize symptoms. Upadhyaya et al. (1989) found no marked differences in rates of depression or level of somatic and psychological symptoms between groups of indigenous white and Asian women presenting to clinics in India. However, when their reasons for consulting their doctors were examined, the Asian women consulted exclusively for somatic symptoms whereas the white mothers were more likely to present with depression. This may be linked into women’s reluctance to admit to symptoms of depression because of cultural expectations of motherhood. The rituals adopted within some cultures following childbirth have been purported to protect against the

development of postpartum depression. For example, Okano et al. (1992) have drawn attention to the Japanese custom of Satogaeri Bunben in which the new mother stays with her own mother for several weeks after giving birth. They have suggested that there may be a link between the onset of depression and having to leave the maternal home. Therefore, a perceived or actual lack of social support may contribute to the onset of the illness.

Five of the eight women with a history of postpartum depression developed significant symptoms during the withdrawal period; none of the eight women who did not have a history of postnatal depression experienced any mood symptoms during the withdrawal period. The authors concluded that these data provided support for the involvement of estrogen and progesterone in the development of postnatal depression in a subgroup of women.

O’Hara and Swain’s (1996) meta analyses included 14 studies of approximately 3000 subjects which examined the mother’s previous psychiatric history and postpartum depression. Beck’s (2001) meta analyses included 11 studies which examined approximately 1000 subjects. The results of both meta-analyses found that a previous history of depression was a moderate to strong predictor of subsequent postpartum depression. Subsequent studies consistently report that women with a previous history of postpartum depression are at increased risk of developing postpartum depression (Johnstone et al., 2001; Josefsson et al., 2002).

According to a study conducted by Wood, et al. (1997), the emotions did not include just depression and sadness but women covertly suffered through infinite emotions such as anger, guilt, being overwhelmed, anxiety and loneliness. Some mothers also experienced obsessive thoughts or cognitive impairment and contemplated harming themselves or

their infants, which led to increased feelings of anxiety and guilt. The women who admitted to thoughts of self harm and suicide spoke about how suicide provided a glimmer of hope 'to the end of the nightmare' and 'the blackness'.

Women consistently talked about a profound sense of isolation and loneliness. They frequently felt discomfort at being around others and their belief that no one really understood what they were experiencing (Beck, 1992). They socially withdrew to escape a potentially critical world (Semprevivo, 1996). Social factors appeared to modify the sense of isolation. Primiparas felt physically isolated from other mothers, but multiparas had already developed a network of other mothers from their previous children (Mauthner, 1995). Depending on the reaction of their coworkers to the mothers' return to employment, the mothers' sense of isolation could be increased or decreased. Some mothers valued the companionship of their work colleagues but at the same time felt they were missing out on the network of mothers who stayed at home. Others felt an increased sense of isolation because their colleagues disapproved of working mothers

Women lived with the burden of guilt for many different reasons: being a bad mother (Mauthner, 1995; Mauthner, 1999; Mauthner, 1998) failure to be the perfect mother (Wood et al., 1997), and lack of an emotional connection with their baby (Beck, 1996b; Sluckin, 1990). The mothers who thought about harming their infants (Beck, 1992; Semprevivo, 1996) were so horrified by these thoughts that they were consumed by guilt.

Nicolson's (1999) study described how loss of autonomy and time were precursors to feeling out of control because the women no longer had time to consider themselves or process their daily experiences. This in turn led to a sense of loss of self, loss of their former self and a loss of identity. Women

discussed how the illness led to loss of relationships, with their partners, children and family members (Morgan et al., 1997). Some women wanted their partners 'to be able to read their minds' and take some initiative in helping them, whilst others felt that admitting their feelings was a sign of personal inadequacy and failure as a mother (McIntosh, 1993). If they did admit to their feelings the women also risked being misunderstood, rejected or morally condemned by their loved ones. Because women with postpartum depression felt 'different' and 'abnormal' compared to other mothers, they withdrew from these relationships and spoke of the difficulty about being surrounded by other mothers (Mauthner, 1995).

Adjusting the unrealistic expectations that the mothers had for themselves was cited by most women in Berggren-Clive's study (1998) as one means of freeing themselves from the constraints they had imposed on themselves. The women shifted expectations with respect to themselves as mothers, partners and family members which was necessary in rebuilding self. The mothers began to regain control of their lives as they recognized their needs and found ways of meeting them. It was a slow, unpredictable process however and as the depression lifted, the women began to mourn the lost time that they would not be able to recapture with their infants. Many of the women described an increased sense of strength following their experience of postpartum depression, as recovery involved acceptance or resolution of the conflicts they had experienced during their transition to motherhood (Mauthner, 1998).

A Meta analysis study was conducted by O'Hara and Swain in 1996 in which they compared maternal personality characteristics within studies to examine whether they were associated with postpartum depression. They identified that there are some disorders that contribute to

the emotions of a female in this stage and also affects her emotions. A few are explained as follows:

**Neuroticism:** Neurotic disorders can be defined as psychological disorders that are usually distressing but allow one to think rationally and function socially. The neurotic disorders are usually viewed as ways of dealing with anxiety. The term 'neurotic' is no longer used within psychiatric classification systems, although it is commonly included in personality questionnaires as a measure of psychological distress cognitive attributional style.

**Cognitive attributional style** was also measured as a predictor of postpartum depression. Barnett and Gotlib (1988) discuss how negative cognitions are good indicators of depression, and that depressive attributions coincide with a depressed mood. O'Hara and Swain analyzed 13 studies of over 1300 women and found that a negative cognitive attribution style was weakly related to postpartum depression

Paykel et al. (1980), using a retrospective design, found that negative life events classified as moderate to severe were associated with increased probability of being diagnosed as clinically depressed. O'Hara, Rehm and Campbell found that high levels of life events from the beginning of pregnancy until about 11 weeks postpartum were associated with higher levels of depressive symptomatology and a greater likelihood of being diagnosed with postpartum depression (O'Hara, Rehm, & Campbell, 1982; O'Hara, Rehm, & Campbell, 1983). Hopkins, Campbell and Marcus (1987) found no association between life events and postpartum depression. At least two other large studies have not found an association between life events and postpartum depression (Holmes et al., 1967; Kumar et al., 1984). One of the difficulties of assessing a possible relationship between life events and the onset of depression postpartum is the

study design. Retrospective collection of data may lead to over reporting of life events as subjects (perhaps subconsciously) try to link a stressful event as a possible cause of the illness. The prospective collection of data eliminates this source of bias

Receiving social support through friends and relatives during stressful times is thought to be a protective factor against developing depression (Brugha et. al., 1998) and several earlier studies have evaluated the role of social support in reducing postpartum depression. **Social support** is a multidimensional concept. Sources of support can be a spouse, relatives, friends or associates. There are also different types of social support, for example informational support (where advice and guidance is given), instrumental support (practical help in terms of material aid or assistance with tasks) and emotional support (expressions of caring and esteem). Researchers have also examined the effects of perceived support (a person's general perception or belief that people in their social network would provide assistance in times of need) and received support (where supportive exchanges may be directly observed or measured by asking people). Received support is complex and multidimensional, as one needs to measure both the quantity of support given (i.e. the frequency of supportive acts, number of network members) and also the quality of the support received (Collins et al., 1993; Dunkel-Schetter and Bennett, 1990; House and Kahn, 1985; Neter, et al., 1995).

Studies have consistently shown a negative correlation between postpartum depression and emotional and instrumental support (Beck, 1996a; Menaghann, 1990; Richman, et al., 1991; Seguin, et al., 1999). Two recent studies have found that perceived social isolation (or lack of social support) was a strong risk factor for depressive symptoms postpartum (Forman, et al., 2000; Seguin, et al., 1999). However, there may be differences

between perceived and received social support. Logsdon et al (2000) studied social support among African-American low income pregnant women. Although she found a significant relationship between perceived support and depressive symptomatology following delivery, there was no relationship between received support and postpartum depression. This confirmed the findings of earlier studies.

Cutrona (1984) found that several dimensions of perceived social support assessed during pregnancy were predictive of the level of postpartum depressive symptoms. Surprisingly, the strongest predictor concerned the availability of companionship and feeling of belonging to a group of similar others, rather than the quality of intimacy with the husband. Pedersen et al., (1993) determinate that the presence of postpartum depression is due to these possible physical causes namely anemia, diabetes, and thyroid dysfunction. These all could potentially contribute to depressive symptoms. Postpartum alterations in body weight are highly variable and it is important to ask about a woman's 'desire for food' and 'whether food tastes good'. The issue of libido should be expanded to include the acceptance of affection. It is difficult to assess sleep disturbance in new mothers, the clinician may ask about the mother's ability to easily rest or sleep when given the opportunity. Many women with postpartum depression often have such high levels of anxiety that they are unable to rest or return to sleep after getting up with the infant at night. Women who have experienced postpartum depression are at risk of suffering further episodes of illness, both following subsequent deliveries and also unrelated to childbirth (Kumar, et al., 1984; Philipps and O'Hara, 1991; Nott, 1987; Warner et al., 1996).

The effects of parenthood on all aspects of the mother's psychosocial functioning

should not be underestimated. Robinson and Stewart (2001) discuss how, in many cases, the family system must be reorganized, and many couples adopt more traditional roles. The mother usually tends to do the greater share of parenting tasks, and the parents must decide how their new roles will affect their previous work patterns and implement the necessary changes. With the added burden of childcare, the relationship between the partners often suffers, and there is less time for socializing. A supportive relationship with the father can help mitigate the stresses of being a new mother. These stresses should be borne in mind when evaluating the role of factors in the development of postpartum depression.

Several well designed studies (Braverman and Roux, 1978; Kumar et al., 1984) have reported an increased risk of postpartum depression in women who experience marital problems during pregnancy. Hopkins et al. (1987) however failed to confirm this finding. It has been mentioned previously that women with postpartum depression perceived their husbands to be less supportive than women who were not depressed, but these differences were apparent only postpartum and not during pregnancy (O'Hara, 1986; O'Hara et al., 1983). Marital relationship was measured between studies using a variety of different instruments, the limitations of which need to be briefly discussed. The range of measurement went from a simple Likert scale on which women indicate their level of satisfaction with the relationship, to standardized measures such as the Dyadic Adjustment Scale (DYAS) (Spanier, 1976). The assessment could take place during an interview or via a self-report design. It was previously found that women with postpartum depression rated their husbands as less supportive, however it is difficult to know whether their depressive symptomatology negatively influenced their perceptions of their relationship. These

results are free from such bias as the measures were taken pre-partum.

The role of socioeconomic status in the etiology of mental health disorders and depression has received much attention. Socioeconomic deprivation indicators such as unemployment, low income and low education have been cited as risk factors in mental health disorders (Bartley, 1994; Jenkins, 1985; Patel et al., 1999; Weich et al., 1997; World Health Organization, 2001). Recent studies from North America, Latin America and Europe reported that depression is more common among poorer countries (World Health Organization, 2001). Lee (2000), Patel (2002) and Seguin (1999) specifically studied low income populations within India, China and Canada respectively and found that financial strain was an important risk factor in postpartum depression within these populations.

## OBJECTIVE

The prime objective of this study is to analyze the relationship of post partum depression with the productivity of female employees. All the antecedents affecting post partum depression are being evaluated and analyzed in order to provide a framework where the organizations can understand its critical nature and as well as they can plan those activities that may reduce its impact on women so that hyper efficient organizations can be built.

## METHODOLOGY

Based upon the extensive literature review, the instrument used for the collection of data has been self-administered questionnaire. The degree of agreement or disagreement of the respondents for each of the statements were captured on a five-point likert scale, from strongly agree to strongly disagree. Reliability and validity of the instrument was also tested. The sample size was 100 and multiple regression was used.

The study highlighted upon three main factors of postpartum depression represented by physical factors, emotional factors and environmental factors. From the literature review it was found that there is a high probability of such factors in creating a medical condition called as Post partum depression. The study further emphasized that postpartum depression usually results in lack of concentration and lower productivity. Postpartum Depression contributes to various other issues like higher attrition rate and higher absenteeism in the organizations.

## RESULTS

### Reliability Analysis

Cronbach's Alpha was used for determining the reliability of all items in the questionnaire. Reliability test applied out was using IBM SPSS STATISTICS- 24 software and reliability test was measured separately for every individual variable of the study.

It is considered that the reliability value more than 0.7 is good and it can be seen that all the Cronbach's Alpha reliability values are higher than the standard value, thus all the items in the questionnaire are highly reliable. (Table 1).

### Regression Test:

**H<sub>0</sub>:** There is no significant impact of Post partum Depression on productivity.

a. Predictors: (Constant), efact, pfact, enfact

b. Dependent Variable: productivity

This table 2 provides the R and R<sup>2</sup> value. The R Value is 0.41 a positive correlation between both variables. The R<sup>2</sup> indicate how much of the dependent variable, "productivity", is explained by the independent variable, "efact, pfact and enfact", is 46.8%.

a. Dependent Variable: productivity

b. Predictors: (Constant), Predictors: (Constant), efact, pfact, enfact.



This table 3 indicate that the regression model predict that the outcome variable significantly well. Here  $P < 0.000$  and indicates that, overall, the model applied is statistically significantly predict the outcome variable. The P Value of F statistics (.000) < Standard value 0.05, hence  $H_0$  is rejected.

a. Dependent Variable: productivity

The outcome of regression model has shown that the Prob. value of T-statistic of independent variables; *efact* (0.0000), *pfact* (0.0467) and *enfact* (0.0493) respectively is less than to 0.05 Thus,  $H_0$  is rejected so *efact*, *pfact*, and *enfact* (Post Partum Depression) have a significant impact on productivity (Table-4).

## DISCUSSIONS

Stern and Kruckman, 1983; suggested that post partum depression may vary crossways different cultural settings, so the problem cannot simply be resolved by applying a western concept of depression to other cultures of the world society. They have profoundly discussed that difference in clinical presentation in different settings and other environmental factors play a crucial role in the variation of post partum depression of working women at cross-cultural comparative research. The gap is clearly traced in our study that physical factors and emotional factors are also significantly affecting the post partum depression along with environmental factors. Kumar, 1994; carried out his research on the context of post partum depression and define it as psychiatric disorders allied with childbearing. He conducted his research in Western Europe and North America and found psychiatric disorders are reason to lower efficiency in working women. Stern and Kruckman 1983, described that a review of the anthropological literature exposed surprisingly little support of the phenomenon identified in Western diagnoses as postnatal depression and this conclusion was lent some support by

subjective interpretations in Nigeria (Kelly, 1967), South Africa (Chalmers, 1988) that non-psychotic depression after childbirth is rare in such societies may cause to work effectiveness. Similarly, current research is performed in Indian context where societal influence, traditional norms and organizational environment are entirely poles apart. Current study confirms that physical factors, emotional factors and environmental factors are most considerable determinants to post partum depression and its effect on work efficiency. Present study is strongly supported by Cox's (1983), performed his study on African mothers in Uganda and found that they feel postnatal depression at a comparable rate to the women of developed nations. Dennerstein et al. (1989) and Thorpe et al. (1992) also informed the same fact in their studies that depression after childbirth is equally affects the work performance of women in their research population; Australian, Italian and Dutch mothers and of Greek and English mothers, respectively.

## CONCLUSION

As per the evidence from empirical analysis of current research postpartum depression has a significant impact in reference of physical factors, emotional factors, and environmental factors on productivity of female employees. It may also affect the key issues in the organization as well as major managerial decisions due to the fact that many females are handling a key role in the organization and thus creating a major concern for the organizations. Postpartum depression also affects the environment of the organization because a female may become really hostile in this medical condition which may hamper the relationships between the employees. It also affects the attrition rate as well as absenteeism in the organization thus creating a major threat for an organization. On the basis of extensive literature review current

research is also recommend that some other factors may also contribute to the post partum depression and such factors may also be analyzed in the future researches, these factors may include heredity, lack of communication with the partner, intake of any chemical substances, lack of family support and a history of medical health issues.

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## ANNEXURES

Table 1 : Reliability Test

Variable Name	Cronbach's Alpha	Number of Item
Physical factors	.854	06
Emotional factors	.803	06
Environmental factors	.863	12
Productivity	.827	10

Table 2 : Model Summary

Model	R	R Square	Adjusted R Square	Durbin-Watson
1	0.41	0.489	0.468	1.048376

Table 3 : ANOVA\*

Model	Sum of Squares	DF	Mean Square	F	Sig.
Regression	16.946	1	16.946	22.81356	0.00000
Residual	41.443	99	3.188		
Total	58.389	100			

Table 4 : Coefficients\*

Variable	Coefficient	Std. error	T statistic	Prob.
C	-21.09630	8.287490	-2.545560	0.0125
Efact	0.446913	0.063982	6.984926	0.0000
Pfact	-1.045136	0.518538	-2.015545	0.0467
Enfact	0.770967	0.389529	1.979230	0.0493

## FINANCIAL SOCIALIZATION: A LITERATURE REVIEW

Pooja Ravi Malaviya\*, Harsha Jariwala\*\*

*Young people learn a wide range of financial beliefs, attitudes, and behaviors from their families, and suggest that family communication about money is a key ingredient in raising competent adult money managers. However, less is known about intimate family-based processes by which socialization occurs. The current study is focusing on the importance of financial socialization, financial beliefs and financial management. Parents have more influence over their children's financial knowledge, attitudes, and behaviors. Financial socialization provides a more inclusive lens for understanding the various individual factors and relational processes leading to financial behavior. Researches on the issues of financial socialization and other financial aspects of day to day life have not yet done with population of India. It is to be explored in the countries like India where family plays a significant role. This study has provided an in-depth literature review on financial socialization and provided a research gap for the further research in the context of India.*

**Key Words:** Financial Socialization, Financial Behavior, Youth.

### INTRODUCTION

The financial practices either it is constructive or unconstructive which form during the young age are used to persist throughout the life. The financial knowledge, approach and behaviors acquired throughout this stage and, consequently, the financial freedom that youngsters ascertain may influence their lives in profound ways, not only in the financial and economic terms, but also have an effect on the relations with family members, friends, and associates. The college years are important intermediary stage of development as usually the collegians are not yet financially independent but are passionately learning the capability needed to be financially independent. Additionally, they are taking this freedom as key to get maturity status.

College students are at a significant period in their lives because they transit from financial dependence to financial independence. "For most young adults, college marks the beginning of financial independence from their parents and greater

responsibility for making sound financial decisions" (Gutter, et. al., 2010). College may be the first opportunity for many young adults to make important financial decisions while living on their own.

Young adults who are beginning to make more complex financial decisions are finding themselves in a downward financial spiral of debt that they will not easily repay while in college or after they have gained fulltime employment in the workplace (Joo et. al., 2001). The financial knowledge, attitudes, and behaviors acquired during the transition to adulthood may affect students' lives in the realm of financial and economic well-being and in regards to their ongoing relations with family, friends, and associates (Shim et. al., 2009).

Parents have more influence over their children's financial knowledge, attitudes, and behaviors than work experience than work experience and high school education gained (Shim, 2010). Parents play important roles in preparing their children to live independent lives. They teach their children

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how to manage financial resources not only by directly instructing them (Danes 1994; Moschis, 1987), but also by modeling appropriate behavior (Hayhoe et. al., 1999, Joo et. al., 2009).

### **Financial Socialization**

Financial socialization has its roots in consumer socialization which was defined by Ward (1974) as “processes by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace”. Though Ward intentionally limited his definition to the socialization that occurs during childhood, he noted it would be naive to believe that consumer socialization did not continue into later stages of life. More recent definitions of consumer socialization have become more inclusive to development after childhood. Consumer socialization as “the whole process by which a child will develop an understanding of the economic world. Furthermore, it refers to the adult’s evolving outlook on the economy as his/ her role in life changes in line with various economic events such as getting his/her first job, being unemployed or retiring”.

Researchers in the field of financial socialization expanded these definitions to include more psychological and relational elements, seeking to move beyond simply the skills and knowledge necessary to be an informed consumer (Gudmunson and Danes, 2011; Xiao et. al., 2011). Danes (1994) captured these qualities in her definition of financial socialization as “much more inclusive as learning to effectively function in the marketplace. It is the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors that contribute to the financial viability and well-being of the individual”.

Financial socialization is the process by which individuals obtain and advance their knowledge, beliefs, values, attitudes, skills,

and norms that influence their subsequent financial practices/ behaviour (Danes, 1994). Literature documented that individuals acquire financial knowledge and shape financial behavior through interaction with socialization agents like parents, peers, teachers, etc. during their childhood (Moschis 1987).

Financial behavior is a multi-faceted construct that can include any behavior within the diverse domains of the financial market. Gudmunson and Danes (2011) described two general types of financial behavior that appear in the literature. One type includes behaviors that represent a “pattern of actions over time such as earning, saving, spending, and gifting”. The other type includes financial behavior processes that are event-like rather than immediate financial transactions. Such behaviors include opening or closing retirement or college savings accounts. The current study includes spending, saving and checking a credit report.

### **REVIEW OF LITERATURE**

Shim, et. al. (2009) has developed a conceptual financial socialization model that would help to explain the socialization process that young adults may undergo as they acquire financial knowledge, attitude, and behaviors. A total of 2,098 first-year college students (61.9 percent females) participated in the survey, representing a diverse ethnic group (32.6 percent minority participation: Hispanic 14.9 percent, Asian/Asian American 9 percent, Black 3.4 percent, Native American 1.8 percent and other 3.5 percent). Data were collected from first-year students enrolled fulltime at the university over an 8-week period during spring 2008. The survey questionnaire was posted online throughout the entire 8-week period of data collection. Also, during the final weeks of data collection, a pencil and-paper survey was administered in classrooms and freshman residential halls as a means of including

students who had not responded to email recruiting efforts. In order to help young adults achieve this success, parents, schools and entrepreneurs should form partnerships dedicated to teaching sound financial practices. Parents should be informed about the lessons that their own financial behaviors impart and also about the importance of direct teaching.

Scott et. al. (2013) examined how materialistic and religious family Socialization processes were linked with retirement preparation financial behaviors through financial strain or capability. 334 married couples were sampled. The participants for this study were taken from wave 1 of the Flourishing Families Project (FFP). The FFP is a study of family life involving families with a child between the ages of 10 and 14. Most participant families were randomly selected from targeted census tracts in a large northwestern city using a national telephone database and were administered questionnaires in their homes. Findings indicated direct relationships between materialism and financial strain, between religiosity and determination of needs, and between financial strain and saving for retirement. Indirect relationships were found between materialism and saving for retirement through financial strain.

Gina et. al. (2013) explored the influence of parental financial socialization on youth's financial behavior in Ghana. The objective of the study was to empower youth through financial education and inclusion programs and to consider how to involve parents and family members in programs and capitalize on opportunities for youth to have some earned income while they learn how to manage money. 100 schools were randomly selected from 8 of Ghana's 10 regions. In each school, 60 students were randomly selected resulting in a total baseline sample of 6,252 youth and 4,576 Parents. Multivariate analysis using propensity scores as sampling

weights was used to assess three levels (no, low, and high) of parent-perceived parental financial socialization on respondents' financial behaviors using an observational study. This study found that both parent and youth perceived parental financial socialization were strong and consistent predictors of youth financial behaviors.

Gutter et. al. (2010) studied to explore the difference of financial social learning opportunities among male and female university students in Turkey and in Florida. The research was conducted at two public universities, one in Ankara, Turkey and other in Gainesville, Florida. The Turkish survey included 3983 students (2199 female and 1726 male), with an average age of 20.4. The Florida survey included 3320 students (1058 female and 2236 male), with an average age of 20.8. The research used web survey questionnaire to assess students' financial behaviors. The questionnaire was originally developed in English and translated into Turkish. Both the surveys found that anticipatory parental influence plays an important role in financial socialization process.

Sabri and Leila (2011) assessed the university students' financial management skills and to determine students' financial education needs. Samples were selected using multi stage stratified sampling techniques. A total of 11 universities were randomly selected for the study and 350 students were taken as a sample. 350 questionnaires (300 for in campus and 50 for off-campus students) were distributed to students through the student affairs divisions of the respective universities. Perceived financial management skills were measured using a 5-point Likert scale from 1 (no skill at all) to 5 (very skilful) on 11 management related items: daily expenses, debt, future needs, time, savings, use of education loan, social interaction, stress, decision making, problem solving and career planning. This study found that even

though students have wide access to financial services, such as education loans and credit, they lack the financial management knowledge and experience to manage money, which may lead to financial problems.

In another study, they studied the gender differences in financial well-being, financial socialization and financial knowledge among college students. The objective of the study is to determine the gender differences in the financial well-being, financial socialization and financial knowledge among college students. The sample comprised 2,430 students in six public and five private universities across Malaysia, which were randomly selected for the study. A self-administered questionnaire was used as the data collection method. The perceived financial well-being was measured by asking students to rate their level of satisfaction on a scale of one (not satisfied at all) to ten (very satisfied) on six items including the amount of savings, financial situation, ability to purchase, savings for emergency expenses, skills to manage money. Female students are more satisfied with their current financial status, ability to meet wants, savings for emergency needs, affordability to spend, while there are no differences between males and females in satisfaction with the amount of savings and financial management skills.

The financial behavior of emerging adults through a family financial socialization approach was studied by Schweichler (2013). The objective of the study was to examine the role of attachment insecurity, locus of control, and parental financial communication in the financial behavior of emerging adults from a family financial socialization theory perspective. The sample consisted of 348 emerging adult college students (226 female) from a large southeastern university. The current study utilized data gathered as part of the Emerging Adult Financial Capability Study

(EAFCS). A convenience sample was recruited from a large public university in the southeastern United States during the 2012 fall semester. The findings supported that the inclusion of attachment as an important family relationship variable in the financial socialization process.

Garrison and Gutter (2010) explored the gender differences in financial socialization and willingness to take financial risks. The objective of this study was to determine the effect of gender and financial social learning opportunities on varying levels of willingness to take financial risks while controlling for marital status, race, income, and prior financial education. A stratified random sampling technique was used to conduct a web-based survey of 15,797 students from 15 universities across the United State. Data for this study were collected as part of a larger study on the impact of financial education policies on financial behaviors during the spring and fall terms of 2008. A web based survey was completed by 15,797 students from 15 universities across the United States.

Soo et. al. (2012) studied the effect of socialization and information source on financial management behaviors among low- and moderate-income adults. The objective of the study is to examine the effect of financial socialization on the financial behaviors of adults. The sample of 1,000 between the age of 24-66 years and income of < \$80,000 was obtained by using the firm Survey Sampling International LLC. Total 1,000 households in their program complete web-based survey. The findings supported that demographic variables (such as age, gender, family size, net worth, race, education, and income) and financial socialization variables (parental influence and the source of information) have significant effects on financial management behaviors on adults from this low and moderate-income sample. The findings supported that

Demographic variables (such as age, gender, family size, net worth, race, education, and income) and financial socialization variables (parental influence and the source of information) have significant effects on financial management behaviors on adults from this low and moderate-income sample.

Alhabeeb (2001) described a conceptual scheme of the economic socialization of youth, and characterizes the underlying logic and dynamics of the process of socialization as it applies to children and youth. The findings supported that socialization, as a progressive process, is dynamic, systematic, and vigorous. It progresses with age and maturity of the subject. Copur (2010) explored the relationship between financial socialization, perceived norms and materialism of college students when controlling for socioeconomic characteristics. It has taken a sample of 3983 students (2199 female and 1726 male) who were mostly of traditional college age (mean = 20.4 years,  $SD = 2.47$ ). Data was collected during spring of 2010 using a web survey of college students. The research was conducted at a state university in Ankara. The findings supported that Students who perceived negative credit card usage behavior by parents and peers would be more materialistic. Students who communicate with parents related to financial matters would be less materialistic however; students who perceive a higher peer influence would be more materialistic.

Danes (2011) attempted to criticize and to initiate a theoretical discussion regarding family financial socialization—what it is; why it is important; and how its tenets could help advance understanding of individual differences in financial literacy. It presents an overview of 100 selected empirical studies from six journals on the topic of personal finance from the past 40 years. The research originated from at least 11 different disciplines, with major contributions from

family and consumer sciences (23%), family studies (20%), marketing (18%), and psychology (17%). Harrison (2014) attempted to conceptualize financial socialization model. The objective of her study was to develop a discussion regarding the processes via which children develop and become financially literate through process of financial socialization. Bryan (2001) examined the impact of the early family financial experiences on the current financial behavior of college students — including gambling behavior. This study is based on a survey that was mailed to the students with the use of a random sampling method. Student names were randomly selected from a list generated by the student records office at the university. This study is based on a survey that was mailed to 2000 undergraduate college students at a large mid-western university in the spring of 1997.

Kim et. al. (2011) has studied effect of family processes and adolescents' financial behaviors. The objective of the study is to examine the contribution of family processes (parental warmth, parental financial monitoring, and parent-child interactions about money) to explain cognitive and behavioral aspects of adolescents' financial behaviors. A national sample of adolescent age 12–18 and their families ( $N = 1,471$ ). Data came from the 2002/2003 Child Development Supplement to the Panel Study of Income Dynamics and it was concluded that children and adolescents may need additional guidance and education on banking and savings. It was found that parent discussion of financial practices within a context of warmth and encouragement was associated with positive financial outcomes for children.

Catherine et. al. (2011) identified what college students' narratives revealed about what they learned from their families about finances. Data were collected from a total of 217 students over three semesters. Approximately 80 percent of the students are



female; 95 percent are of traditional college age between 19 and 24 years old. Students are socioeconomically, racially, and ethnically diverse - about one-third are Somali, Hmong, Laotian, Filipino, Ethiopian, Cambodian, Vietnamese, and Latino - many from first-generation immigrant families. Data for this study were from an undergraduate assignment in a financial management course at a large Midwest university. The semester course enrolls upper-level students majoring in family science, business, or psychology. Assignment questions were used for this study. The findings supported that saving was the most reported financial concept that students learned from their families. Many college students in this study expressed the importance of savings as a key financial concept learned in childhood.

Ryan (2014) explored relationships between Parental/ guardian socioeconomic status, socialization, and college student financial behaviors. A simple random sampling technique was adopted to collect primary data. The survey is of 530 students, or 16 percent of the target population. The survey respondent demographics by year and gender were as follows: 30 percent (55 students) were 1st years, 27 percent (51) were Sophomores, 21 percent (39) were Juniors and 22 percent (41) were Seniors. 73 percent (138) of the respondents were Women, and 27 percent (50) were Men. Data is collected using an anonymous online survey which used a combination of Likert--type scales along with both multiple choice and open-ended questions. The findings supported that Parents and guardians can have some impact on their children's' financial futures and willingness to openly discuss finances and modeling positive financial behaviors can potentially improve financial behaviors.

Danes (1994) described the parental perceptions relative to what age they feel it is appropriate or important to share selected kinds of financial information or involve

children in selected financial activities. These exploratory data were collected from 182 parents through several sources in order to obtain a sample that reflected the distribution of demographic characteristics across the state. (All of the respondents had children, although not all of the children were currently living in the respondents' homes.). The respondents were asked to complete a questionnaire that had a series of demographic questions and family financial education questions. Most respondents (58 percent) were part of financial education seminars, and 11 percent of the survey responses were obtained through individual financial counseling, both of which were performed by an independent financial educator/ counselor. Over a fifth (21.4 percent) was solicited through early childhood and family education groups and another 9.3 percent of the respondents answered the questionnaire through their participation in a social service agency.

### **A Scope of Further Research:**

It came into view at the time of reviewing the financial socialization literature that there has been a considerable amount of research conducted on this issue in other countries. Still researches on the issues of financial socialization and other financial aspects of day to day life have not yet done with population of India, specifically, in the countries where family structure plays a very important role in defining a social system of the country.

### **CONCLUSION**

Financial socialization is a process by which people acquire and develop values, attitudes, standards, norms, knowledge, and behaviors that contribute to their financial skills and understanding. This suggests that socialization opportunities come from individual, organizational, or institutional agents with whom young adults come into contact or maintain a relationship. Spending

behaviors can be transmitted by parents and other influential individuals, and can be taught from generation to generation, according to social learning theory.

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## IMPACT OF DIGITAL PAYMENT ON TEXTILE RETAIL INDUSTRY WITH SPECIAL REFERENCE TO INDORE CITY

**Nidhi Sharma\*, Raksha Thakur\*, Raksha Chouhan\***

*Indian citizens have been using digital payment modes for many years. Digital payment system is considered to be secure and convenient way of cashless payment. Recent government initiatives and policies have encouraged the use of digital platforms to bring transparency and security in business operations. However, cash transactions are still prevalent in retail industry and payment via electronic media is still considered at its budding stage in India. The present research attempts to identify factors that measure the impact of digital payment on textile retail with special reference to Indore city. The sample size consists of 154 respondents of Indore City. The purpose of the study is to provide significant inputs to textile retailers that enable them to formulate relative strategies and hence increase their market share.*

**Keywords:** Digital Payment, Indian Textile Industry, Retailers.

### INTRODUCTION

#### Indian Textile Industry

The Indian textile industry is one of the leading industries in the globe with a massive availability of raw materials and textiles manufacturing base. There is a great contribution of textile manufacturing industries and trade in boosting the Indian economy. Textile industry in India contributes about 20% of the total industrial production. It provides employment to around 20 million people. Textile is considered to be one of the oldest industries of India and has a significant presence in the national economy Dhanabhakyaam (2017).

#### Indian Retail Industry

According to IBEF (Indian Brand Equity Foundation), the Indian retail industry is growing at a very fast pace. India is considered to be at number five in terms of preferred retail destination in the whole world. Retail in India is witnessing augmented expansion resulting in retail development not only in metropolitan and cosmopolitan cities, but in smaller and budding cities as well. Indian population has

started accepting online retail a latest and convenient way of purchasing products.

#### Digital Payment System in India

Consumer behavior of making payment through cash is transformed into cashless or digital payment. Being Cashless refers to the scenario where entire business transactions are done through electronic modes of payment. Arun Jaitley, finance minister in 2016, emphasized on building Indian economy a cashless economy and hence contributing towards curbing black money. Reserve Bank of India supported this idea and hence unveiled a document in this regard as – “Payments and Settlements Systems in India: Vision 2018”.

Cashless transaction system presents number of benefits to the society like reduction in production costs of coins and paper currency, reduction in the chances of tax avoidance and generation of black money, discourages the circulation of fake currency, convenient and easy to use and also discourages robbery. In addition to this, it provides safety and security, reduces issues of damage as if faced with paper

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money, saves time, promotes transparency and accountability, and drives the development and modernization of the payment system.

### Modes of Cashless Payments

1.1.1. **Banking Cards** - Banking cards are one of the most used cashless mode of payment that give power to the people to purchase items in different types of stores through different machines provided by the banks. They provide ease of transaction to both the buyers and sellers.

1.1.2. **USSD** - It is known as Unstructured Supplementary Service Data channel. This service allows mobile banking transactions through basic cell phones without any internet data facility and provides financial deepening and inclusion of under banked society in the mainstream banking services.

1.1.3. **AEPS** - Aadhaar Enabled Payment System (AEPS) is a bank led model which allows online interoperable financial transaction at Point of Sale or Micro ATM through the Business Correspondent or Bank Mitra of any bank using Aadhaar.

1.1.4. **UPI**- Unified Payments Interface (UPI) is a system that powers multiple bank accounts into single cellular phone application (of any participating bank), integrating different banking features,

flawless routing of funds & merchant payments all under single cover.

1.1.5. **Mobile Wallets** - It is the best way to carry cash in digital format. One can connect his/her credit or debit card information in mobile phone to mobile wallet application or one can also transmit money online to mobile wallet. Companies offering e-wallets are: Paytm, Freecharge, Mobikwik, SBI Buddy, Citrus Pay, Axis Bank Lime, ICICI Pockets etc.

1.1.6. **Point of Sale (PoS)** - PoS is the place where sales take place. PoS may be a mall, a market, a city or an area where a customer completes a transaction. It is also known as checkout counter.

1.1.7. **Mobile Banking** - Mobile banking is getting very popular nowadays. Banks and other financial institutions offer its customers to conduct variety of financial transactions distantly using a cell phone or tablet.

1.1.8. **Internet Banking** - It is also known as online banking, e-banking or virtual banking. Financial institutions like Banks allow customers to conduct a range of financial transactions online.

1.1.9. **Micro ATMs** - It is a device which is used by Business Correspondents to deliver basic banking services. It enables Business Correspondents to carry out immediate transactions.

### REVIEW OF LITERATURE

The review of related literature on the topic of the study is given below:

Year of Study	Author (s)	Excerpts
2010	Das A. and Agarwal R.	The study found that the Government considers cash as a costly mode of payment. Hence policies are designed in such a manner that encourage people to prefer cashless payment system rather than cash-based payment system which will eventually reduce cost of managing currency, make tracking of transactions easy, prevent frauds.
2014	Subram-anian S.	The author highlighted that the banks and other financial institutions must work towards encouraging different paper free modes of electronic payment that will ultimately shape

		the spine of sustainable economic development.
2015	Kumar P.	Author stated that the cashless transactions are growing on daily basis. Various factors are responsible for the same like growth of online retail industry, safe and convenient business transactions without the nuisance of carrying and maintenance of paper money.
2016	Garg P. and Panchal M.	This study opined that many people support the steps taken by the government to promote of cashless economy as it helps in fighting various serious issues like terrorism, corruption and money laundering. But cashless economy is not totally safe and is endangered by various challenges like cybercrime and illegal access to data. Hence it is imperative to reinforce Internet Security to prevent increasing online frauds.
2016	Kumari D.	The study discovered that after demonetization, Government is trying to generate awareness among people for cashless transactions by promoting through different ways but still many people are clueless about how to shift to cashless transaction.
2017	Khatoon S.	Author analyzed that the small textile traders are not accepting cashless payment system. The reason behind their refusal to accept cashless payments is that they do not have faith in cyber security, some of them do not want to disclose their total income in order to avoid taxes, and the most important reason is they need ready cash in their hands.
2017	Patil V.S. and Mishra J.	Authors discussed various pros and cons of building India a cashless economy. For making India a cashless economy, administration must guarantee availability of quality telecom network throughout the nation. Banks and other financial institutions will have to persistently improvise on technology and other related services to enhance safety and convenience to their customers.

## OBJECTIVES

The Objectives of the study are as follows:

- To study the most popular mode of digital payment in textile retail sector.
- To analyze the factors affecting digital payment in textile retail sector.
- To provide suggestions to retailers which can help them formulate strategies to enhance their sales by using cashless modes of payment.

## METHODOLOGY

**The Study:** The study is exploratory in nature where factors affecting Digital Payment by consumers in Textile Retail Industry were explored.

**The Sample:** Non-probability convenient sampling method was used to collect the data. Data has been collected from 154 respondents from Indore City.

**Tools for Data Collection:** Primary data collection was done through self designed questionnaire containing 16 statements. Responses on statements were collected through Five point likert scale ranging from strongly agree to strongly disagree.

**Tools for Data Analysis:** Reliability test was performed through SPSS 20.0 software. Analysis of data was also done by applying KMO and factor analysis for results, through SPSS 20.0 software.

## RESULTS, DISCUSSION AND FINDINGS

On applying the reliability test, the cronbach alpha was found to be 0.704 which shows that the scale developed is a good instrument to collect data as per Nunnally (1988). After the completion of reliability check KMO test was applied and the value of KMO test was found to be 0.616 (table-1) which is greater than the recommended value of 0.5. So it shows that sample size is sufficient to conduct factor Analysis. The value of

extraction in communalities table is above 0.5 (table-3). As per table-4, value of Total variance explained is 73.936 percent.

Six factors were identified after applying exploratory factor analysis as shown in table-2. First factor is 'Acceptability of digital payment' with total factor load of 2.477. It focuses on the market acceptance for digital payment while shopping through unorganized retail. Customers are using digital modes of payment for small transactions as well. Second factor is 'Comfy and friendly' with a total factor load of 1.813. It stressed on the fact that it has become easy for the customers to make big transactions with the usage of digital modes of payment. Big transactions get easier due to digital payment which leads to increase in spending of consumers.

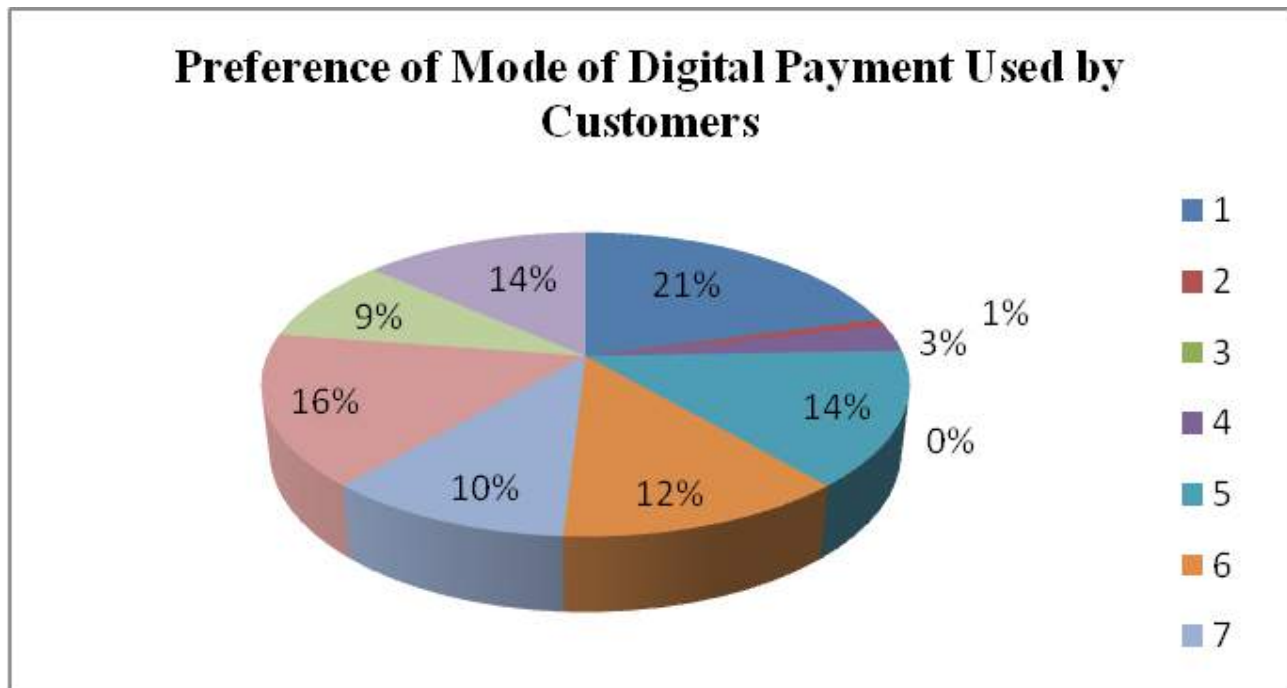
Third factor is 'Hassle free shopping' with total factor load of 2.057. It described that digital mode of payment reduces the cost and trouble of damage of paper currency which also enhances the shopping in organized retail. Fourth factor is 'Safety and Security' with total factor load of 2.164. It explained that despite governmental rules and regulations to control cyber crime, customers are still worried about the security of online transactions. Secondly due to lack of proper infrastructure and internet connectivity, customers may find online transactions quite time consuming. So these issues must be considered legitimately.

Another factor is 'transparency' with total factor load of 0.909. Online payment makes the payment system quite transparent and hence reduces the chances of tax avoidance among users. Final factor with a total factor load of 1.432 is 'socially beneficial'. Awareness of digital payment modes among consumers can help in reduction of black money generation and make transactions transparent. Retailers must focus on the above factors to increase sales transactions, make transactions convenient as well as



support the government initiatives to spread digitalization among all the consumers of the country. Preferential digital mode of payment can be explained by the following pie chart. It shows that maximum 21 percent of customers prefer debit cards for making digital payments followed by internet

banking (16 percent), Micro ATMs and mobile wallets (14 percent) and credit cards (12 percent). Many customers are still not aware or not very comfortable with many new digital modes launched by the government.



## SUGGESTIONS

Government must launch suitable programs to generate awareness among people about different modes and instruments available for digital payment. Government must make strict laws against cyber crime. Easy, convenient and time saving processes of digital payment should be introduced for less educated people. Government should provide some incentives to consumers so that digital payment is more preferred over cash payment by consumers for transactions. Internet or Wi-Fi facility should be provided at low cost with no halts. Government should encourage easy acceptability of digital payment.

## CONCLUSION

This research studied consumer's response on the digital modes of payment in textile

industry in Indore city. It can be encapsulated that consumers mostly prefer debit cards and mobile wallet for digital payments. This study also stated that people do not have trust on cyber safety and security. Lack of awareness amongst the consumers about different modes of digital payment is one of the important reasons for less digitalization. Government should take some steps for generating awareness among the customers and should provide incentives to make digital payment more preferable over cash payment. Sellers should also be encouraged to enhance the acceptability of digital payment.

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## ANNEXURES

Table-1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.616
Bartlett's Test of Sphericity	Approx. Chi-Square	587.055
	Df	91
	Sig.	.000

Table 2: Identified Factors with Factor and Item Loads

Sr. No.	Factors Identified		Factor Load	Total Factor Load
1.	<i>Acceptability of digital payment</i>	acceptability	.950	2.477
		unorganized retail	.944	
		small transactions	.583	
2.	<i>Comfy &amp; friendly</i>	big transaction	.907	1.813
		increase spending	.906	
3.	<i>Hassle free shopping</i>	reduces cost	.805	2.057
		reduces trouble	.649	
		organized shopping	.603	
4.	<i>Safety and Security</i>	promotes cyber crime	.826	2.164
		time consuming	.729	
		safe and secure	-.609	
5.	<i>Transparency</i>	reduce tax avoidance	.909	.909
6.	<i>Socially beneficial</i>	halts black money generation	.807	1.432
		Awareness	-.625	

Table - 3 Communalities

	Initial	Extraction
Safe and Secure	1.000	.651
Reduce Tax Avoidance	1.000	.837
Halts Black Money Generation	1.000	.760
Big Transaction	1.000	.895
Small Transaction	1.000	.599
Organized Shopping	1.000	.567
Unorganized Shopping	1.000	.929
Reduces Cost	1.000	.667
Reduces Trouble	1.000	.543
Time Consuming	1.000	.657
Awareness	1.000	.695
Promotes Cyber Crime	1.000	.746
Increase Spending	1.000	.884
Acceptability	1.000	.922

Extraction Method: Principal Component Analysis.

**Table 4: Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.382	24.159	24.159	3.382	24.159	24.159	2.304	16.454	16.454
2	2.049	14.635	38.794	2.049	14.635	38.794	2.040	14.569	31.023
3	1.458	10.418	49.212	1.458	10.418	49.212	1.933	13.805	44.828
4	1.276	9.113	58.325	1.276	9.113	58.325	1.718	12.268	57.096
5	1.111	7.937	66.262	1.111	7.937	66.262	1.190	8.501	65.597
6	1.074	7.674	73.936	1.074	7.674	73.936	1.168	8.339	73.936
7	.744	5.311	79.247						
8	.692	4.944	84.192						
9	.572	4.083	88.274						
10	.556	3.969	92.243						
11	.523	3.734	95.977						
12	.404	2.887	98.863						
13	.125	.891	99.754						
14	.034	.246	100.000						

Extraction Method: Principal Component Analysis.

## **IMPACT OF DIGITALISATION ON BANKING BUSINESS IN INDIA : A STUDY WITH SPECIAL REFERENCE TO USE OF ELECTRONIC CARDS AND MONEY TRANSFERS BY CUSTOMERS**

**Vidya Telang\***

*For the banking sector use of technology in the form of digitalization is of utmost importance because it can have a direct impact on the productivity and profitability of the whole organization. Digitalisation in the banking system of India has changed the way banking business is conducted from mere traditional operations to digital relationship operations with internet and mobile banking. With technology at the tip of a finger there has also been a huge change in the speed, quality as well as quantity of services rendered by the banking personal to the customers. The current paper is an attempt to know the impact of technology adoption and digitalization by customers and its impact on banking business.*

**Key words:** Banking Sector, Banking Business, Technology, Digitalization, Customers, Electronic Cards.

### **INTRODUCTION**

Banking business in India has undergone a huge transformation during recent times. Use of technology is today regarded as one of the most important resources by every organization. The banking sector in India which is the epicenter of the entire financial system of the country is no exception. Use of technology is of utmost importance because it can have a direct impact on the productivity and profitability of the whole organization. Digitalisation in the banking system of our country has changed the way banking business is conducted from mere traditional operations to digital relationship operations without too much human intervention.

### **REVIEW OF LITERATURE**

According to Jagtap (2018), digitalization has changed the way customers deal with their finances. It has helped to reduce the costs in a drastic way and has helped to generate revenue through various channels. Today banks in India are poised for a rapid growth and are in the process of transiting from 'conventional banking' to 'convenient

banking' ([www.forbesindia.com](http://www.forbesindia.com)). At the same time digitalization is not only helping the banks to get more customers but also delivering efficient services. Thyaga (2016) in his study observes that information technology has enabled the banks to develop better and sophisticated banking products, better risk management practices and create a customer base by reaching out to even far and distant places. The financial sector and banking sector in India have hugely benefitted from information technology and making them relatable to international banking trends.

In an analytical study conducted by Lal and Saluja (2012) on E-banking in India for the period 2006-07 to 2011-12, they opine that technology has a big role to play in improving the customer services in the banking sector. According to them e-banking today offers services and products like Automated Teller machines (ATMs), Credit and Debit cards, Electronic fund transfers, Internet banking, Mobile banking, Electronic Clearing services (ECS) etc. Although the e-banking services and adoption of information technology was still in a nascent stage, efforts were being

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made by the banking sector to spread its use. According to Khan and Fozia (2013), banks in India should leverage technology to increase penetration, cost-effectiveness and enhance convenience and effectiveness. Use and adoption of technology can have a multiplier effect on development of banking sector. Focus on adoption of technology will not only help banks to improve their internal processes but also help in delivery of better services to their consumers.

### **Productivity, Banking Business and Digitalisation**

Productivity can be defined as the ratio of input and output. Every productive system works on an input output relationship. All the resources used by a firm to generate output and their interrelationship can be defined as the productivity of the firm. It is a term which basically explains as to how efficiently are the resources being utilized to maximize the output. Traditionally the primary inputs in any sector can be categorized as land, labour, capital and entrepreneurship. However in today's modern world no sector and no industry can be thought of as an efficient industry without the aid of technology. The information technology (which in banking parlance can also be called as use of computers, internet and digitalization) has literally gripped the banking sector all over the world. Technology can be regarded as a very important input and almost indispensable tool in the hands of enterprises to increase the efficiency and productivity of its operations in modern context.

In India too there has been an advent of use of technology in rendering banking services. Efforts are being made to transform the way banking services are delivered today. In banking sector being a service industry, the use of computers and internet can be seen almost at every bank branch especially in the scheduled commercial banks. In banking industry the use of technology is primarily

in the hands of its employees and secondly in the hands of customers at the other end. It is therefore, the technology aided services which can have a direct impact on the productivity and banking business. Digital banking combines the benefits of two worlds: a new customer experience on the outside and an efficient, effective operating model on the inside—both enabled by digitalization and the underlying technologies, processes, and structures. It is available twenty four hours and three sixty five days of the year which makes it readily accessible and increases the customer base thus adding to banking business ([www.happiestminds.com](http://www.happiestminds.com)).

Also technology has helped the banking sector to transit from traditional banking to relationship banking. Digitalisation and globalisation have permanently changed the financial sector and its operating environment. Financial services are already provided in digital platforms, which have evolved outside of the sector itself. As of yet, these services mostly consist of relatively simple services, such as payments. However, growing digital platforms attract service developers from among innovative internet companies, who specialise in the analysis of customer data. This in turn will attract and bind consumers as customers to these platforms. The most successful companies of the future will hence be those able to combine people, digital platforms, efficient working methods and global business, while responding to the needs of the digital native customer. Every company aiming for growth therefore needs a digital strategy ([www.finanssiala.fi](http://www.finanssiala.fi)).

### **Types of Digitalized Services being Rendered**

RBI at the helm of Indian Banking System is committed towards encouraging more and more use of Electronic Payments and Settlements systems (Payment and Settlement systems in India Vision 2018 RBI)

to make India into a less-cash society. Digitalisation is the call of the day and without it banking in the global world is almost unimaginable. The various electronic modes and channels of payment and settlement majorly include Electronic Clearing Service (ECS), Credit cards and Debit cards, Real Time Gross Settlement (RTGS) for big money payments, National Electronic Fund Transfer (NEFT) for retail payments and use of Automated Teller Machines popularly known as ATMs.

### **OBJECTIVES AND METHODOLOGY**

The present study has been conducted to know the impact of digitalization and use of electronic cards and money transfers and the efforts being made for a less cash society on banking business.

The study is being conducted on all the nationalized banks including IDBI Bank. The cross section data of 21 banks for the year 2017 are given in Table-1. To study the impact of digitalization, the dependent variable being used is banking business which is the sum of deposits and advances of the bank. Accepting deposits and giving advances are the primary functions of any bank. Thus, the aggregate of the two has been taken as the variable for banking business.

The independent variable comprises of the total value of digital transactions being conducted through the use of Debit and Credit cards and the money transfers through the use of NEFT and RTGS. The data is secondary in nature and is collected from RBI website and recompiled to suit the purpose of study. It is sought to study the impact of electronic business conducted through the use of technology and above mentioned transactions on the Banking Business of the banks. For this purpose Regression analysis has been used. The descriptive statistics of Electronic Business and Banking Business are given in Table-1.

### **Descriptive Statistics: Discussion**

The Table-1 shows the Electronic Business (EB) and Banking Business (BB) for the 21 banks under study for the year 2017. The total value of business conducted through electronic mode includes debit and credit cards money receipts and payments and money transfers through NEFT and RTGS. The table shows that the maximum EB is being generated by State Bank of India with Rs. 8635337 million followed by Bank of India at Rs. 2409034 million and Punjab National Bank at Rs.2020453 million. It is the least for Punjab and Sind Bank at Rs.113013 million. The average EB for the banks under study amounts to Rs.1145836 million for the year 2017 with a standard deviation of Rs.1819298 million and coefficient of variation of 1.59.

Similarly the average BB amounts to Rs. 6092990 million with a standard deviation of Rs. 7394789 million and coefficient of variation of 1.21. It means that the dispersion in EB among the banks is quite high as compared to BB. It again reveals that the spread of digitalisation is less in some public sector banks. The reason for this can be the different sizes of the banks. The banks which have a high electronic business are also larger in size. We can also see that State Bank of India is having maximum EB as well as BB. Syndicate Bank and Bank of Baroda are also ranks high for BB.

### **Use of log Value**

Since the values of both the predictor and the dependent variable are in money terms and very huge, the log of values has been taken for estimating the relationship. Log values are usually used when the figures are very high as in case of money values. Also the influence of outliers in the dependent and independent variables can be reduced with the help of log transformations. This will also help to reduce heteroscedasticity. A log model helps to determine the elasticity between the variables. It helps to know the

percentage change in the dependent variable due to a percentage change in the independent variable (www.quora.com).

### Hypothesis Formulation

#### The Hypothesis being formulated is

$H_0 =$  There is a positive impact of digitalisation on the banking business in India.

The following empirical model has been used to study the impact of technology on banking business

$$\text{Log}(Y) = B_0 + B_1 \text{Log}(X) + u$$

Where,

Y= Banking Business

X= Electronic Business

### ANALYSIS AND DISCUSSION

From the Regression Table-2 it is clear see that the Coefficient of determination  $R^2$  for the model is 0.31 i.e. 31 percent. It means that the independent variable in the model is able to explain the variations in the banking business to the extent of 31 percent. The regression results also show that there is a positive impact of Electronic Business of the banks with the positive coefficient being 0.42. Which means that a 1 percent increase in EB would lead to 0.42 percent increase in BB. Thus, higher the Electronic Business higher is the business of public sector banks. It reflects that the usage of digital technology in banking has impacted the banking business in a favourable way. The results are also highly statistically significant. A moderate positive correlation of 0.56 is also observed between the two variables under study. The hypotheses thus stands accepted that adoption of technology and electronic mode of banking had a positive effect on the banking business.

### CONCLUSION

From the above discussion it can be seen that the impact of technology and digitalization

through the use of debit and credit cards and electronic money transgers has big role to play of the increase in banking business. Use of technology not only improves the speed of work but also helps to cater to a wider geographical area. Higher use of technology by the customers in the form of debit and credit cards and money transfers through NEFT and RTGS is having a positive impact on banking business. Making use of technology is the need of the hour and its use in financial services is manifold. The success, growth and spread of banking business and financial services sector are highly dependent on effective use and implementation of technology tools. In case of India digital banking is not fully mature and therefore, the use of technology has a major role to play in its development.

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## ANNEXURES

Table 1: (Calculation of Total Business and Descriptive Statistics)

Sr. No.	Bank Name	Debit Card + Credit Card + NEFT + RTGS (Rs. Million)	Deposits (Rs. Million)	Advances (Rs. Million)	Total (Deposits + Advances) (Rs. Million)
1	Allahabad Bank	419700	2018702	1507527	3526229
2	Andhra Bank	454878	1954412	1368463	3322876
3	Bank Of Baroda	1468317	6016752	3832592	9849344
4	Bank Of India	2409034	5400320	3664817	9065137
5	Bank Of Maharashtra	319079	1390528	955152	2345681
6	Canara Bank	1278937	4952752	3420088	8372840
7	Central Bank Of India	868788	2966712	1393988	4360700
8	Corporation Bank	667401	2205596	1403568	3609164
9	Dena Bank	221756	1139428	725746	1865174
10	Indian Bank	422095	2685381	1908259	4593640
11	Indian Overseas Bank	401455	1825093	1276993	3102086
12	Oriental Bank Of Commerce	425928	2113426	1404586	3518012
13	Punjab And Sind Bank	113013	2193394	1577060	3770454
14	Punjab National Bank	2020453	855402	583345	1438747
15	Syndicate Bank	602847	6217040	4194931	10411972
16	UCO Bank	634761	2605609	1996694	4602302
17	Union Bank Of India	959727	2012845	1197245	3210090
18	United Bank Of India	251471	3758990	2864666	6623656
19	Vijaya Bank	298025	1269393	661393	1930785
20	IDBI Ltd	1189554	1330120	945489	2275608
21	State Bank Of India	8635337	20447514	15710784	36158298
	Arithmetic Mean	1145836	3588543	2504447	6092990
	Standard Deviation	1819298	4182774	3217556	7394789
	Coefficient of Variation	1.59	1.17	1.28	1.21

Source: RBI Website (Self Compiled and computed)

**Table 2: Regression**

	<i>Coefficients</i>	<i>Standard Error</i>	<i>T Stat</i>	<i>P- Value</i>	<i>R Square</i>
Intercept	4.14	0.85	4.88	0.0001	0.31
EB	0.42	0.146	2.95	0.0083	

**Table 3: Correlation between Electronic Business and Banking Business**

	<i>Electronic Business</i>	<i>Banking Business</i>
<i>Electronic Business</i>	1	
<i>Banking Business</i>	0.56	1

**Table 4: Conversion into log values**

Sr. No.	Bank Name	Debit Card + Credit Card + NEFT + RTGS (Rs. Million)	Debit Card + Credit Card + NEFT + RTGS (Rs. Million)	Total (Deposits + Advances) (Rs. Million)	Total (Deposits + Advances) (Rs. Million)
			Log Value		Log Value
1	Allahabad Bank	419700	5.62	3526229	6.55
2	Andhra Bank	454878	5.66	3322876	6.52
3	Bank Of Baroda	1468317	6.17	9849344	6.99
4	Bank Of India	2409034	6.38	9065137	6.96
5	Bank Of Maharashtra	319079	5.50	2345681	6.37
6	Canara Bank	1278937	6.11	8372840	6.92
7	Central Bank Of India	868788	5.94	4360700	6.64
8	Corporation Bank	667401	5.82	3609164	6.56
9	Dena Bank	221756	5.35	1865174	6.27
10	Indian Bank	422095	5.63	4593640	6.66
11	Indian Overseas Bank	401455	5.60	3102086	6.49
12	Oriental Bank Of Commerce	425928	5.63	3518012	6.55
13	Punjab And Sind Bank	113013	5.05	3770454	6.58
14	Punjab National Bank	2020453	6.31	1438747	6.16
15	Syndicate Bank	602847	5.78	10411972	7.02
16	UCO Bank	634761	5.80	4602302	6.66
17	Union Bank Of India	959727	5.98	3210090	6.51
18	United Bank Of India	251471	5.40	6623656	6.82
19	Vijaya Bank	298025	5.47	1930785	6.29
20	IDBI Ltd	1189554	6.08	2275608	6.36
21	State Bank Of India	8635337	6.94	36158298	7.56

Source: RBI (log values are self computed)



## INFORMATION TECHNOLOGY ADAPTATION AND MANAGERIAL EFFECTIVENESS: A REVIEW

Simrat Tuteja\*, Parul Sharda\*\*, Anukool Manish Hyde\*\*\*

*Information technology is the use of any computer, storage, networking and other physical devices, infrastructure and processes to create, process, store, secure and exchange all forms of electronic data. Managerial effectiveness is how well manager applies his skills and ability in guiding and directing others to meet objectives. This paper aims to review research on the topic Information Technology Adaptation and managerial effectiveness to establish the current knowledge. In this regard, the researchers suggest some promising avenues for future research and this study consists of a systematic review of 102 referred articles on the impact of Information Technology Adaptation on managerial effectiveness. The findings contribute to a more holistic view of the topic and complement the study. Additionally, a conceptual framework is proposed that aims at guiding and informing future research activities. This study may not enable a complete coverage of all articles in the field of information technology adaptation and managerial effectiveness. However, based on the selected research methodology, it seems reasonable to assume that the review process covered a large share of studies available. Moreover to the best of author's knowledge, there is no systematic review on impact of information technology adaptation on managerial effectiveness previously published in academic journals.*

**Keywords:** Information Technology, Managerial Effectiveness, Systemic Literature Review.

### INTRODUCTION

Information technology is the automation of processes, controls and information production using computers, telecommunications, softwares and other gadget that ensure smooth and efficient running of all activities in an organization. It is a term that largely covers the coupling of electronic technology for the information needs of a business at all levels. Managerial effectiveness means how effectively managers utilize the resources available to them. This article review research on information technology adaptation and managerial effectiveness to establish the current body of knowledge and to suggest some avenues for further research activities.

### REVIEW OF LITERATURE

In the era of information, communication and technology, organization management

has changed. The present scenario is also known as the "digital era." Most of the human resource functions have rapidly been changing by involving information technologies. (Hendrickson, 2003. McCrindle, 2006. Maditheti, 2017). Whitten et. al. (2004) says that in recent years, high percentage of financial organizations are frequently using computer technology to facilitate services; and that the use of information technology adoption is expected to increase further as the technology expands. The impact of information technology has influenced almost every area of business and service prominent, among them is the banking sector. The introduction of e-banking has revolutionized and redefined the way banks were operating. Technology is now considered as the main contribution for the organizations success and as their core competencies. So the banks, be it domestic or foreign, are investing more

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on providing to the customers with the new technologies through internet banking. Monsuwe´ et. al. (2004) defined 'computer self-efficacy' as an individual's self-confidence in his or her ability to perform operations across multiple computer operation domains. Princhar and Cole (1997) defines IT as "which generally covers the harnessing of electronic technology for the information needs of business at all levels."

It is a computer based system as well as telecommunication technology for storage, processing and circulation of information. Casolaro and Gobbi (2007) studied, by taking a sample of more than 600 Italian Bank, the impact of information technology usage expansion on E-Banking or internet banking in Italian Banks. The study showed a significant affect of information technology use on the cost, profitability, performance and productivity in Italian banks. Mcphail and Fogarty (2004) conducted a study on Australian bank customers, to examine the impact of demographic variables and their usage of information technology based self-service banking. The study aimed at the four e-channels or online channels i.e. ATM, spoken bank, internet banks and POS. The study concluded that earlier clients had less convictions in using new electronic channel, especially for the spoken bank. It was found that age factor banking, along with electronic payment approaches, whereas, females chose using spoken bank. They also focus on other demographical variables, and found that income had an significant effect consumer with high wages were intensifying their access of e-banking. Whereas gender, marital status or qualification level have no impact on the e-banking expansion. The study also highlighted the obstacles that prevent E-banking use like the difficulty in using electronic channels and lack of knowledge regarding the benefits that clients gain through the use of electronic channels for various banking services.

accomplishment. The study resolved that the main impediment in respect to the service is the lack of privacy and security, and ease of use.

Nawafleh (2015) has also studied the relationship between demographic variables of customers such as age, gender, income and the sense of obstacle's degree. It has been concluded that high income increases the sense of obstacles. As well as for age is concurred getting older increases sense of obstacles. While the relationship between gender and sense of obstacles was less relevant. Jane and Jeanne (2004) however, has investigated new technological factors that influence American Banks customers' such as e-banking. The research focus on ATM, internet banks, money transfer and electronic payment. It also emphasize on demographic variables which play a significant role in client adoption of this technology. The study suggested that banks encourage customers to adopt the e-banking technology as it helps them in term of saving time and effort and also suggest banks to implement a strategy that helps to improve consumer confidence in e- banking technology with respect to the accessibility and security. EMahdi and Mehrdad, (2010) stated that financial services industry changed over the time and that can be termed as e-developments which is developing rapidly in all areas of financial intermediation and financial markets such as e-finance, e-money, e-banking, e-brokering, e-insurance, e-exchanges, and e-supervision. The information technology is turning into the most vital factor in the future development of banking, influencing banks marketing and business strategies. The adoption of e-banking began to occur quite extensively as a channel of distribution for financial services due to rapid advances in IT and intensive competitive banking markets. These factors make it complicated to design a bank's strategy, which process is threatened by unforeseen developments

and changes in the economic environment and therefore, strategies must be flexible to adjust to these changes.

Venkatesh et. al. (2003) has focused their research to study on the customer perception, customers attitude towards e-banking and their satisfaction level while using e-banking. Dabholkar (2009) has studied the advantages of technological developments. It avoids repetition, time consuming tasks, reduced human error and extended access to banking related facilities. Technology provides customer information easily as and when required rather than person-to-person basis. Telephone banking facilities allow non-cash transactions from anywhere, previously have required a visit to a branch earlier. Similarly, Internet banking allows customers to perform tasks as and when and from where he required. He suggests that direct contact with such technology also gives customers a feeling of satisfaction. To et. al. (2008) conducted study to understand the adoption of instant messaging in an enterprise, self-efficacy generated a positive response to an employee's perceived behavior control and behavioral intention. Berger (2003) studied that managers cannot ignore Information technology as they play a critical role in contemporary organization. The applications related to information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a fundamental importance and concerns to all banks and indeed a prerequisite for local and global competitiveness. ICT directly affects how managers take decision, how they plan to achieve goals and what products and services are offered in the banking industry. It has continued to change the way banks and their corporate relationships are organized worldwide and the variety of innovative devices available to enhance the speed and quality of service delivery.

Blili and Raymond (1993) studied that the strategic use of information technology can both threaten and benefit small and medium-sized enterprises (SMEs). In this paper, the strategic importance of information technology is analyzed. Planning approaches are then outlined, focusing on how SMEs can attain a information technology for competitive advantage. Chorafas, 2000 stated that Personal Computer Banking "PC-Banking" is a service which allows the bank's customers to access information about their accounts through a network, usually with the help of bank software installed on their personal computer". Once access is provided, the customer can perform a lot of retail banking functions. PC Banking virtually establishes a branch in the customers' home or office, and offers 24-hour service, seven days a week. It has the benefits of Telephone Banking and ATMs. He also focus on Electronic Funds Transfer at Point of Sale (EFTPoS) is an on-line system that allows customers to transfer funds immediately from their bank accounts to merchant accounts when making purchases (at purchase points). A POS uses a debit card to activate an Electronic Funds Transfer Process Increased banking productivity results from the use of EFTPoS to service customers shopping payment requirements instead of clerical duties in handling cheques and cash withdrawals for shopping.

According to Essinger (1999) The idea of internet banking is; "to give customers access to their bank accounts via a web site and to enable them to enact certain transactions on their account, given compliance with stringent security checks." Internet banking, by its nature offers more convenience and flexibility to customers coupled with a virtually absolute control over their banking. Service delivery is informational (informing customers on bank's products etc.) and transactional (conducting retail banking services). As an alternative delivery conduct

for retail banking, it has all the impact on productivity imputed to Telephone Banking and PC Banking. It is most cost-efficient technological mean of yielding higher productivity. It eliminates the barriers of distance, time and provides continual productivity for the bank to beyond belief distant customers. Pikkarainen et al. (2004) research focused on finding factors affecting internet banking by individual bank customers and how he perceived usefulness and website information on online banking. The major reasons for increasing usage of internet banking is ease of use and time saving. Tarafdar and Vaidya (2006) elaborated the tendency of organizations to use EC technologies and studied the associated aspects such as the role of top management, organization culture, characteristics of Information Systems professionals, and organization structure. Tarafdar and Vaidya (2006) also credited the success of the IT infrastructure to a developed the technical infrastructure plan, well-thought-out implementation plan and timely maintenance and upgrades and found a problem, non-availability of technical facilitation might unfavorably impact intention and usage, its presence alone was found to be insufficient.

Rose (1999) focused on Automated teller machines (ATMs); "An ATM combines a computer terminal record keeping system and cash vault in one unit, permitting customers to enter the bank's book keeping system with a plastic card containing a Personal Identification Number (PIN) or by punching a special code number into the computer terminal linked to the bank's computerizes records 24 hours a day" once access is done, it offers many retail banking services to customers. There are many ATM centers located outside of banks that allow customers to have access anytime of the day. ATMs are able to provide a wide range of services, such as making deposits, fund transfer between two accounts and bill

payments. Balachandher et al. (2001) focused on Telephone Banking also known as "Tele banking" which is in the form of remote or virtual banking, which is essentially the delivery of branch financial services via telecommunication devices where the bank customers can perform retail banking transactions by dialing a touch-tone telephone or mobile communication unit, which is connected to an automated system of the bank by utilizing "Automated Voice Response (AVR) technology".

A study was carried out by Singh et al. (2010) to study factors influencing the promotion of use of 3G network in India. Their study was based on the revised TAM (Technology Acceptance Model) model that included five variables: antecedents' perceived risks, cost of adoption, perceived service quality, subjective norms, and perceived lack of knowledge. Of these variables, antecedents' perceived risk and cost of adoption were major attitude influencers towards the use of 3G network services in India. Thyaga Raju N (July, 2016) has focused on recent developments of banking sector related to technology in India are Internet, Society for worldwide inter-bank financial telecommunications (SWIFT), Automated Teller Machine (ATM), Cash dispensers, Electronic clearing service, Bank Net, Chip card, Phone banking, Tele-banking, Internet banking, Mobile banking, Any where banking, Voice mail, E-banking Etc. The study concluded the benefits related to Information Technology that enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. Rupanjali Nath, Kanika T Bhal, and Geetika T Kapoor () also focused on the TAM model. They identified perceived usefulness (PU) and perceived ease of use (PEU) as impacting attitude towards IT and behavioral intention.

The model is extended by identifying social influence, computer self-efficacy, and technological facility as factors affecting perceived usefulness and perceived ease of use. Hernández, Jimenez, and Martin's (2008) focused on basic TAM model established how TAM could almost accurately predict the acceptance of technology for a particular business. Pan and JordanMarsh (2010) explored various variables that influenced the decision of Chinese older adults in adopting the Internet. They found perceived usefulness (PU), perceived ease of use (PEU), subjective norms (SN), and facilitating conditions (FC) as key value measures to be fulfilled especially by older adults than younger adults. Agarwal, Rastogi and Mehrotra (2009) took the Unified Theory of Acceptance and Use of Technology (UTAUT) model. UTAUT model theoretically views the evolution of intention and behavior over time. It comprises four core factors (performance expectancy, effort expectancy, social influence and facilitating conditions) of intention and usage and four demographic variables (gender, age, experience and voluntariness of use) of key relationships. This model established a direct link (facilitating condition) between these factors and IT usage or a link through behavioral intention (performance expectancy, effort expectancy, and social influence). Gupta, Dasgupta and Gupta (2008) have studied IT adoption among Indian government employees, extensively used UTAUT to study IT adoption behavior. Beccalli (2007) found a positive relationship between total IT investment and performance in a study of the European banking sector by taking a sample of 737 banks during the period 1994–2000. He used the SFA to estimate the efficiencies of costs and its benefits for European banks. His main focus was on to find whether IT investments improved the profitability and performance of banks, and whether banks could gain a competitive

advantage by investing in IT and obtain higher short- and long-term profits. The study concluded that the impact of IT investment on banks was negative on short-term profitability as measured by ROA and ROE ratios. IT had a positive contribution to the long-term costs (technological changes) for all European banks, thus reducing the actual annual costs of production by approximately 3.1 percent. The impact of technological changes on cost reductions consistently increased over the studied period. A final result of the study concluded that the impact of different types of IT (hardware, software and services) on the performance of European banks was heterogeneous. While investment in services was positively related to bank profitability, acquisitions of hardware and software had a negative impact on performance.

Kozak (2005) studied the impact of the development in IT on the profit and cost efficiencies of the US banking sector during the period of 1992-2003. The research concluded a positive correlation between the level of implemented IT and both profitability and cost savings. Lichtenberg (1995) concludes that there is significant benefits from investment in Information Technology adaptation especially in the Banking Industry. Some limitations found by few researchers. Thomas and Hunger (2012) has studied that the banks, as a result of the fluctuations in the wholesale operations, expanded toward their retail customers with profitability opportunities. If the infrastructure of hardware, software and other integrated, the development in this area will continue in order to achieve integration in the relationship with customers using various channels, through 24\*7 hours of the day, including regular branches, remote financial services, telephone, ATM, the Internet and personal computers and then re-designing the banks system in order to achieve that. Arabs have insignificant contribution on the scientific and

global technological production level. They still are receiving these developments through its open markets and their needs for it. These developing countries are not immune to the effects of these global developments. There are many indicators that emphasize widen of a scientific and technological gap between developed and developing countries. The gap still exists with respect to information technology, particularly to items and zones of electronic banking which are the subject of this study. Chircu and Kauffman (2000) identified the limitation to acquire skill and expertise in new technologies. He found lack of training and education as the barriers to the adoption of EC.

### **Literature Review related to Managerial Effectiveness**

In 1974 Katz identified three major dimensions of managerial effectiveness – technical, conceptual, and human and their roles. Dhar (1978) describe a number of important features of an effective supervisor in Indian contexts. These features included physical courage, effective communication and influential talk, managing self-space, job knowledge, concern for their team members, and discipline and obedience of organizational codes. Margerison (1981) concluded that managers who are highly adaptable and flexible tend to achieve performance more effectively and efficiently. Atkinson and Gregory (1986) stated flexibility and adaptability as an attempt to neutralize the consequences of environmental contingencies and organizational requirements. This further suggestion employees to perform better. Gibson et al. (1988, p. 37) stated productivity of a person is his ability to satisfy environmental demand. In macro-term cities evidently vital in determining the longevity of organizations and improves the economic status of the nations. Bulkeley, (1994) stated that, productivity enhancement must be the

essential goal (Sheard and Kakabadse, 2004). Flexibility and adaptability have been identified as key techniques to cope with uncertainties and enable organizational members to adjust with environmental transition. Rheem, (1995), found that companies that used management effectiveness programs had greater profits, better cash flow, stronger stock market performance, and greater stock value than companies that did not. Companies with such programs had higher sales per employee or productivity- than those that did not; also their productivity and financial performance is higher as compare other companies in their industries. In the same study, they also compared companies before- and- after implementing the program. They found that after implementing management effectiveness, total shareholder return increased by 24.8 percent and productivity increased by 94.2 percent. Jain P. (1999) found three dimensions to measure the effectiveness of Indian executives or managers, namely, functional, interpersonal, and personal effectiveness. Senand Saxsena (1999) enriched the list by adding these features: “do the right things”, “focus on self-contribution”, “time-handling”, “motivational aspect”, “management of change”, “value system”, and “ethics” as some vital traits of an effective manager. After this Analoui (1995, 1997, 1999, 2007) in his four different paper identified eight parameters of managerial effectiveness incorporating: managerial perception; skills and knowledge; organizational criteria; motivation; constraints and difficulties; choices and opportunities; inter-organizational relationships; and dominant managerial philosophy and proposed that personal, organizational and environmental factors influence these parameters significantly. Chan (2003) defines efficiency of management as utilization of resources (Labor, Machine, Capacity, and Energy). He studied that, using the available resources at

best, it saves cost and time, and leads to improve company's performance. Performing act is often pertained to efficiency which has stated in the literature of management as well. It is also known as ratio among consuming resources in expected consumed and actual consumed.

Chauhan et al., (2005). has indicated productivity, adaptability, and flexibility as significant constructs of managerial effectiveness. This in turn gives rise to the first of a number of propositions. Drucker (2006) further identified eight factors: need identification, familiarity with organization culture and climate, development of action plans, responsiveness towards decisions, effective communication, taking advantage of opportunity, productive meetings, and teamwork. He suggested that these factors are corporate with environments and enable the executive in conjunction with required content knowledge (and the translation of this knowledge) to produce desirable outputs. Hamlin and Serventi (2008) identified behavioral items which relate to individual effectiveness and condensed these into three dimensions, i.e. managing self, achieving outcomes, and managing and leading a team. Extensive work and debate have been conducted on effectiveness, however, while progress has been made, and a range of potentially significant factors have been identified, the possibility of identifying a select group of key factors of managerial effectiveness has been challenging. B. Sripirabaa, R. Krishnaveni, (2009) studied that partnering and financial support has a negative significant impact on: the functions of the performance management system and alignment. whereas the performance management system's overall function has a significant positive impact on alignment. Likewise, financial support has positive significant impact on the performance management system's functions Pathak et.al. (2010) found adaptability as a major constituent of effectiveness. The implication

of this work is that a manager has to produce consistently the results and that is only possible when he or she can easily adapt and remain flexible. In other words, it would seem that productivity, adaptability, and flexibility are the constant variables which have repeatedly differentiate performers from non-performers. Bhattacharjee and Sengupta, (2011) In their paper they studied the Key Factors affecting the Performance such as Ability, Motivation, Career Development, Feedback and Compensation which includes the Setting goals, mentoring, Reward and Recognition, Learning and Development and concluded that it is an important tool for Human resource Management and also for development of the employees. Nair and Pareek, (2011) in their paper they studied the most commonly used performance management system as per the survey was the 360 degree appraisal followed by TQM, and Activity Based Costing. This shows that organizations are more oriented towards employee appraisal than the whole performance of the organization. Pradhan and Chaudhary (2012) has found that performance management has link with individual objectives and organizational objectives in such a way as to give best possible environment to the employees to perform at the highest level and tries to develop skills of people to achieve their capability to satisfy their ambitiousness and also increase profit of a firm. Handling of performance management system helps OCL India ltd to retain its employee with improvement of productivity by achievement of financial aspects with the help of learning effect and retention of experienced employees. Bhatla (2012) the paper studied that organizations and employees share a symbiotic relation, where both are dependent on each other to satisfy their needs and objectives. Therefore employee involvement should not be a onetime exercise, but a continuous process of learning, improvement and action. Dong

Chen (2012), Performance management system provides advantage to the build the human resource and plays a valuable role in process of achieving enterprise strategic objectives. Andrè O' Callaghan, (2012) defines "an effective performance management system is the center of an integrated HR System and the performance data feeds into a variety of processes and systems." Creelman, (2013) in this research paper the author sought out case studies where performance management really had worked well and cases where it had made a significant difference to the people involved and the organizations they served. Mai, Ngoc Khuong and Bui Diem Tien, (2013). This paper concluded that the higher levels of satisfaction, supervisor support, fringe benefits teamwork, working environment and training were positively associated with higher level of organizational loyalty.

### **Literature Review related to Information Technology and Managerial Effectiveness:-**

Few research is done by taking both the aspects:

Argote and Ingram (2000) suggested that an information and communication infrastructure facilitate the communication within the organization would make information sharing easier, and this quality enhances organizational learning and organizational performance. Gold et al. (2001) argued that it is a challenging process to sudden change manual organizational structures with a long history, and that managers' unwillingness and information management in information-based organizations relate to the skill of managing information, and that information management infrastructure and information processing process are important, and that transformation to information-based organization structure would develop organizational skills and effectiveness. McEvily and Chakravarthy (2002) suggested that technological knowledge involved in the

information-based organizational performance helps to provide information in the global market of information age and integrate the knowledge in organization's main production development process might contribute to organizational efficiency and competitive advantage. Yeung et al. (2007) concluded that the impact of organizational development and innovativeness on organizational performance, and found that a proper management of the information is important, and that a significant relationship exists between the variables organizational learning and innovativeness, and organizational performance, and that the basic sustainable strategic resource for a company in 21st century is the skill to transform new discrete information and adapt it to the processes, and to transform itself into a constantly-learning organization. Bulbul (2007) concluded that businesses' "success of creating value" in digital economy of the information age depends on the relationship between all employees, customers, suppliers and shareholders, and the "knowledge" they derive from these relations, and that the businesses will provide more information or succeed in preserving the information and would increase their market value. Information management are what businesses need in the long run in order to enhance their organizational efficiency and performance, as well as achieving a sustainable competitive advantage. Johnson and Guental (2012) studied that HRIS can prevent the costly error that occurs in the matter of social benefits, and save the organization's cost and time.

## **RESULTS**

### **3.1.1 Date of Publication**

Among the 100 papers that formed the basis for our analysis, the oldest publication from 1974 and the most recent one are from 2016. The mass of research gap been



conducted after 2000. This clarifies that impact of Information technology adaptation on Managerial Effectiveness topic is still in its infancy.

### **3.1.2 Country of Authors' Institutions**

Our data show that authors from many countries have published articles about Information technology adaptation and Managerial Effectiveness, which indicates a global interest in the topic. So far, the study of the topics seems to be dominated by authors from the USA, followed by the UK, India, Australia, and many countries. We also observed many single contributions from individual countries, which suggests that the study of Information technology adaptation and Managerial Effectiveness is currently driven by individual actors or research groups / institutions.

### **3.1.3 Journal of Publication**

With regard to the journals that have published research on Information technology adaptation and Managerial Effectiveness, one can see a broad mix, i.e. journals can be assigned to the management, business management, information systems, as well as the other specializations journals. The majority of publications were found in the business management area, which stresses the critical importance of managing Managerial Effectiveness.

### **3.1.4 Theoretical Aim**

There are different ways to develop theory or to contribute to its further development. Our findings showed that the majority of papers (61 articles) had theory development focus. In addition to that empirical (50 article), awareness raising (25 articles), explore and case study based each 6 articles, normative based 4 articles and testing and implementation 3 articles. This underlines that the topic of human resource information system is still in its infancy, which calls for more testing and implementation to develop

the field. It also implies that the study of human resource information system is rather fragmented and influenced by those researchers; personal interest.

### **3.1.5. Research Methods**

This part will be explaining insights into the instruments used for designing of article related to Information technology adaptation and Managerial Effectiveness. The findings demonstrate that there are three dominating instruments which are interviewed (3 studies used them), 66 articles involved a survey and 75 articles used of theoretical background and the remaining articles that used instruments such as workshops, conferences. In the matter of research methodology, we found most of the papers were clear and specific of the methodology and rest of the articles done with clear observation is that findings presented should be taken with caution.

### **3.1.6. Number of Research Methods**

Additionally, the study coded for the number of data instruments applied. A total of 44 articles were based on mono method, and 19 articles used mixed method approach. Even though the latter is promising, as it provides more in-depth insights into human resource information systems, it also clarified that there is a potential for mono-methods studies to develop further understanding of human resource information system and their concepts.

### **3.1.7 Level of Analysis**

The study of human resource information systems offers the opportunity to approach it from many different levels of analysis. Our findings show that 47 articles were based on the industry level. This was followed by technology 44 articles, 30 articles national level, 29 articles employee level and rest of the articles inter-country level. We have noticed that the many of the articles not provided right analysis. Our data also left the

impression that a small number of papers addressed the consequences of human resource information system. From our point of view, however, it would be a promising perspective to get a more fine-grained understanding of human resource information system which is the outcome of industry that act in the organizational level between the organizations (micro and macro level), thus, the phenomenon's complexity is difficult to grasp.

### 3.1.8. Topics

Our analysis shows a significant interest in studying the consequences of Information technology adaptation and Managerial Effectiveness in organizations, e.g adoption of the information technology into organizational performance and other areas of function of both the topics

There are also papers that examined the impact of demographic variable, advantages, many technologies, impact on investment after adaptation of information technology and its limitation

The measuring of effectiveness of Management, employee participation into Information technology adaptation and Managerial Effectiveness, in the matter of government services Information technology adaptation contribution, Another topic that can be determined is the study of Information technology adaptation in the context of impact on Managerial Effectiveness,, in the area of implementation of Information technology adaptation and Managerial Effectiveness, Managerial effectiveness influence on organization,

## 4. Promising Future Research Avenues

The intent of this section is to provide concrete "food for thought" for researchers who are interested in conducting research in the area of Information technology adaptation and Managerial Effectiveness. The ideas are derived from the framework

outlined above and the other findings presented previously. We commence with the proposition of some research ideas of the other aspects before we turn ideas that were derived from the conceptual framework.

### 4.1.1 Research Methodologies and Methods

The findings have shown that there is a critical need to take a more rigorous research approach when getting the topic. The researchers should provide the necessary transparency regarding the research methodology and conceptual methodology chosen to demonstrate comprehensible research approach and process. We convinced that the study of Information technology adaptation and Managerial Effectiveness would contribute from application of different world views. By taking the possible research instruments, researchers may think of using different forms of data collection to get reliable and related information. Moreover, the future research should also design that follow the step-by-step approach. This would help the author to design new version of applications of Information technology adaptation and Managerial Effectiveness.

### 4.1.2 Disciplines

Researchers may also consider bringing additional disciplines to the study of Information technology adaptation and Managerial Effectiveness or bringing together different disciplines, e.g new online technologies / Wireless technology / Mobile based Apps. This would help to develop a more and deep understanding of the topic; even though the inclusion of additional sub domains/ disciplines can increase the risk of fragmentation of the topic.

### 4.1.3 Level of Analysis

This is another point we would like to draw the attention to. As mentioned above, with many Research papers, it was very difficult, to make out the level of analysis. This give

us idea and researcher should underline the need for better thought out and documented research approaches. As mentioned above, the addressing of the individual level of analysis and multiple level of analysis would be taken as approaches to a deeper understanding of the topic. One challenge will be to design best navigation and user friendly applications, as this require well-trained researchers.

#### **4.1.4 Research Avenues Derived from Conceptual Framework**

Given the possible positive and negative consequences of Information technology adaptation and Managerial Effectiveness, the advancement of the field would benefit from studies that look into the measurements and assessment of activities related to information technology in general and to specific activities such as information processing/ sharing. This research would help to better understanding the impact of Information technology adaptation and Managerial Effectiveness on organization success or failure and based on that more specific Information technology adaptation and Managerial Effectiveness updates strategies will be possible as well. The present study of Information technology adaptation and Managerial Effectiveness at the strategic and operative level would be beneficial as well. For example, at the strategic level or Top level, they need information in the report format to take decision and design strategies accordingly. At the operational level, they need information what is to be done to either share or protect different kinds of information/data. Thus, the focus would be on how information should flow internally?

The intersections between individual/groups/organizations and organizational structure may also provide how Information technology adaptation and Managerial Effectiveness system is working? Given fact that the individuals can be assigned to different forms of organizational structure e.g.

functional domains structure, security, networks managing of all these are very difficult task, which may call for alternative forms of integrated governance on the organizational structure and Information technology environment. Finally, the interactions of the different domains call for the quality in system, information and service to get into the strategic process, effective employee communications which helps in making decisions. Information technology adaptation and Managerial Effectiveness will develop security assurance for the mangers it will lead to the change of attitude in micro level and macro level they will come to know the legal and ethical awareness. It will help managers to contribute to the organization to reach to the next level in the competitive and global environment.

#### **CONCLUSION**

The starting point of the paper was to establish the existing body of knowledge regarding Information technology adaptation and Managerial Effectiveness. As, one should understand both the terms and its possible consequences before developing new design of Information technology adaptation and Managerial Effectiveness. We used the method of a systematic literature review to do so. Based on a final number of 80 articles, we determined the current body of knowledge regarding Information technology adaptation and Managerial Effectiveness. This contributes to a more holistic view of the topic and complements the study of Information technology adaptation and Managerial Effectiveness in general. Based on the systematic review, we have developed a framework that highlights conceptual domains of Information technology adaptation and Managerial Effectiveness that can help in organizing the study of the topic and in informing future research.. Additionally, we have highlighted a number of other areas that are regarded as worth to be addressed to further our

understanding of both the terms Information technology adaptation and Managerial Effectiveness.

Our results have implications for both theory and practice. From a theoretical point of view, this paper is more towards holistic study of Information technology adaptation and Managerial Effectiveness and practical point of view, the findings are based on possible consequences and how to cope with the challenge of managers with regard to Information technology adaptation and Managerial Effectiveness. The study wants to focus that organizations take a strategic approach to adapt Information technology and Managerial Effectiveness programs and have information system that help in information flow and distribute their quality information to the decision makers at all levels.

In conclusion, the study of information system is fruitful step for advancement of Information technology adaptation and Managerial Effectiveness and its practices. Having such an advanced understanding will make it possible to develop more research related to impact of Information technology adaptation on Managerial Effectiveness apps more comprehensible. The present study is not without limitations, as selecting research procedure, this study may not have enabled complete coverage of all the articles in the field of Information technology adaptation and Managerial Effectiveness. Yet, it seems reasonable to assume that the review process covered a large share of published studies available. Finally, this paper proposes some future research directions, which are not exhaustive but represent initial stages.

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## LAPSATION AND SUM ASSURED OF LIFE INSURANCE SECTOR IN INDIA

Sapna Solanki Parihar\*

*Sum assured and Lapse ratio are two important measures to evaluate the performance of any insurance company as sum assured shows the amount of money an insurance policy promises to pay up before any bonuses are added and the foremost trouble faced by insurance industry is lapsation rate. It is the number of policies that are not renewed compare to the number of policies that were active at the commencement of that same period. Therefore the present paper is an attempt to see the performance of public and private insurance sector in past three years through lapse ratio and sum assured. Normality of data has been tested using Shapiro-Wilk test. Two way ANOVA has been used to see the difference between public and private sector across the time. The result shows that sum assured value significantly differed in public and private insurance sector across the time span. Public sector insurance companies are paying higher amount then the private sector. Considering various time for the study, the same technique reveals that the guaranteed amount paid to the policyholder in various years is different throughout the time span. But at the same time lapse ratios do not show any significant difference in public and private sector across the time. Lapse ratios are same across the sectors and also across the various time.*

**Key Words:** Lapse Ratio, Insurance, Amount, Time, LIC, Sum Assured.

### INTRODUCTION

In the era of uncertainty where people want to insure their life and family's future in any unforeseen event, life insurance sector offers its services to deal with such situation. Life insurance is a contract between two parties. One party is the policyholder who gives a certain sum of money called premium and the other party is the insurer who gratified to give the monetary support for the policy holder in any contingency. Insurance has an extensive history in India. Life Insurance in its existing structure was introduced in 1818 when Oriental Life Insurance Company began its operations in India. The Life Insurance Corporation of India popularly known as "LIC of India" was integrated on September 01, 1956 by taking into the public sector 245 Indian as well as foreign players. It is the biggest life insurance company in India and at same time country's largest investor. Today, the LIC has eight zonal

offices, around 113 divisional offices, 2,048 branches and 992 satellite corporate offices. LIC has united with some banks and service providers to cater on-line premium collection facility in some of the selected cities. Apart from on-line kiosks and IVRS, info centers have been commissioned at Mumbai, Ahmedabad, Bangalore, Chennai, Hyderabad, Kolkata, New Delhi, Pune and many other cities. With visualization of providing easy access to its policyholders, LIC has launched its SATELLITE SAMPARK offices. The digitalized evidence of the satellite center will assist anywhere to serve and other convenience in the future. From its conception, the Life Insurance Corporation of India, which commands a monopoly of selling life insurance in India, created huge surpluses.

### Privatization of Insurance Sector

The progression of opening up the insurance sector was commenced against the

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background of economic reform process which commenced in 1991 in India. For this purpose Malhotra Committee was formed during this year which submitted its report in 1994 and Insurance Regulatory Development Act (IRDA) was passed in 1999 after that Indian insurance was opened for private sector and private insurance company effectively started operations from 2001. The private players were activated in the liberalized environment such as ICICI Prudential Life Insurance, HDFC Standard Life Insurance Company Ltd., Birla Sun Life, Max New York Life Insurance, Tata AIG Life Insurance Ltd. and many more. The insurance market has witnessed dynamic changes with the presence of private players with joint venture partnering well recognized foreign players across the globe. With such a huge population and the untouched market insurance happens to be a very big opportunity in India. The entry of the private players and the increased use of the new distribution are in the limelight today. The usage of modern distribution techniques and the IT tools has augmented the scope of the industry for long period. Top10 private life insurance companies in India are: Life Insurance Corporation of India, ICICI Prudential Life Insurance, Bajaj Allianz Life Insurance, HDFC Standard Life Insurance, Max Life Insurance, SBI Life Insurance, Kotak Life Insurance, Birla Sun Life Insurance, Star Union Dai-ichi Life Insurance Co. Ltd. and PNB Metlife Insurance.

### **Sum Assured and Lapse Ratio**

Two important factors to determine the performance of the insurance are sum assured and lapse ratio. Sum assured is the amount of cash an insurance policy promises to pay up before any bonuses are added. In other words, maturity value is the amount the insurance company has to pay an individual when the policy matures. This would include the sum assured and the bonuses. The beneficiary gets the sum

assured along with the bonus too (if any) if the policy holder passes away before the policy mature. If the policyholder is alive when the policy matures, he/ she will get assured amount as well as any bonuses declared during the tenure of the policy. On the other hand the foremost problem faced by insurance industry is the growth of lapsation rate. In Indian scenario people do not understand the importance of maintaining their insurance policies in force by paying regular premium. This has resulted in high rate of lapse. Lapse ratio is the number of policies that are not renewed compared to the number of policies that were active at the beginning of that same period. The lapse ratio characterizes the proportion of policies that were not renewed, and thus have lapsed in coverage. Insurance companies are struggling to keep laps ratio low by having their policyholders constantly renew their policies since policy renewals mean continued income. Sum assured and lapse ratio are two important measures to evaluate the performance of any insurance company therefore the present paper is an attempt to see the performance of public and private insurance sector in past three years through lapse ratio and sum assured.

### **OBJECTIVES**

#### **The objectives of the study are:**

- To compare the sum assured (in crore) of public sector insurance and private sector insurance at different point of time.
- To compare the lapse ratio (in %) of public sector insurance and private sector insurance at different point of time.

### **REVIEW OF LITERATURE**

Various studies have been conducted to analyze the performance of the sector and also addressing the issues facing by both



public and private sector. Regha and Kalawati (2018) identified the reasons of life insurance policy lapsation in Coimbtour. Factor analysis revealed that mis-selling of the product, loss of customers confidence due to bad word of mouth from others, high premium rate, lack of faith about company's past performance, poor customer service is provided, frequency change of customer address, financial burden for the policy holders, low awareness about protection of life, inadequate skills of sales person, improper training to the agents and delay in renewal notice are the causes for lapsation in private insurers.

Padmavathi (2013) also identified reasons of lapsation i.e. type of plan, sum assured, mode of payment, and services of agents are the main reasons of high rate of lapsation. Result of the study suggested that highest lapsation rates come from endowment and money-back plans, when compared with other plans. Monthly payment mode is another major factor of lapsation. Insurance companies usually give targets to their agents as result to meet those targets agents sell fake or bogus low sum assured policies. Another reason is sometime people want to please an agent who is a friend or relative and might take a low sum assured policy without having any real need for insurance or with no intention of continuing the policy in future.

Mall and Sahoo (2015) revealed sum insured, product type, outstanding premium, mode of payment, policy duration, and outstanding policy duration, and policyholder characteristics, like age of the policyholder, occupation, dependency, and marital status, are significant determinants of lapsation. Subashini and Velmurugan (2016) revealed that the lapsation of policies in life insurance sector is not only creating obstacles for the growth of the industry but also growth of the economy.

Chakraborty (2017) studied and compared the private and public sector insurance against the two performance variables i.e. 'Gross Premiums Written' and 'Investments' for 2006-2016 and found the considerable difference because of the firm size, customer base, and experience in the market. The state-owned LIC remain as the governing player with a vast-premium and investment base. Although private sector continuously introducing customized product, blend of fresh foreign capital, novel marketing strategies and technological know-how derived from their foreign partners on the contrast LIC has been largely banking upon its conventional insurance products that has been rolled over from the past years.

Sentikumar and Selvaman (2016) analyzed the performance of insurance and explored that life insurance industry plays an important role in improving national economy. The private life insurer offers various new policies to attract their policyholders. In contemporary competitive age people are suffering from many health issues. Life Insurance Corporation of India and IRDA must focus on initiating new plans for those who are facing health problem. Life Insurance Corporation of India should educate significance of insurance to general public through the agent and corporate social responsibility activity.

Balachandran (2001) in his book concluded that the insurance industry is fast growing and mostly becoming a customer-driven and customer-centric one and also suggested insurance industry flourish only after providing attractive product and also options for income generation. Kundu (2003) argued the transformation after the entry of new players in insurance sector. Despite of having huge population, India still has a low insurance penetration. Today, people were increasingly looking not just at products but at integrated financial solutions that can offer stability of returns alongwith total protection.

Technology will play an important role in aiding design and administration of products as well in efforts to build long customer relationships.

Kapse and Kodwani (2003) argued that in the changing scenario for the insurance sector there is going to be good opportunities for insurance sector to expand its market base. Therefore some new policies with improved features or short terms insurance plans may be introduced to attract customer. It is shown that although rewards implied by the insurance products particularly by the tax benefits were quite close to those observed in banks and small saving scheme of the governments. Raju and Gurupandi (2009) conducted a study and sample of the study consists of 300 policyholders residing in Ramanathapuram district. The factors like gender of the policyholders, occupation and patronage mentality of the policyholders did not influence the level of attitude.

### RESEARCH METHOD

To compare the sum assured and lapse ratio of public and private sector insurance company, a secondary data from www.indiastate.com has been extracted on 22 May 2018. LIC has been taken for public sector and Bajaj Allianz, Birla Sun Life, ICICI Prudential, Reliance Nippon were taken to represent private insurance sector. The sum assured (in crores) of public and private insurance companies for last three years 2014-15(T1), 2015-16(T2) and 2016-17(T3) are considered for the study. Normality of data has been tested using Shapiro-Wilk test and also confirmed through Box plot before administrating the statistical analysis. To compare the sum assured at different point of time of public and private sectors, Two Way Analysis of Variance has been used. Similarly lapse ratio is also compared with different sector at different point of time.

### HYPOTHESES

$H_{01}$ : Date is normally distributed.

$H_{02}$ : Sum assured of public and private insurance sector do not differ significantly.

$H_{03}$ : Sum assured at different time span considered for study do not differ significantly.

$H_{04}$ : No interaction occurs between sector and time span in the sum assured.

$H_{05}$ : Lapse ratio of public and private sector insurance sector do not differ significantly.

$H_{06}$ : Lapse ratios at different time span considered for study do not differ significantly.

$H_{07}$ : Interaction of lapse ratio in different sector across different time span do not differ significantly.

### RESULTS AND FINDINGS

The box plots of sum assured and lapse ratio of various companies shown from Fig. 1 to Fig. 12, where none of the figure shows any outlier therefore all the data points are within the IQR Inter Quartile which reveals that data may be considered to be normal. Further Table-3 shows the test of normality through Shapiro Wilk test where all the statistics are not significant as  $p > .05$  which confirms that the data is normal and other test may be administered.

Table-4 shows the descriptive statistics of sum assured of public and private insurance sector across the studied time span. Table-5 shows the result of two way ANOVA which reveals that sector has significant effect on sum assured as  $F = 1122.00$ ,  $P = .03 < .05$ . Similarly time span and interaction of sector and time span have significant effect as  $F = 23.85^*$ ,  $P = .01 < .05$  and  $30.53^*$ ,  $P = 0.00 < .05$  respectively.

Table-6 shows the descriptive statistics of lapse ratio of public and private insurance sector across the studied time span. Table 7 shows the result of two way ANOVA which reveals that sector has no significant effect

on lapse ratio as  $F=4.455$ ,  $P=.059 > .05$ . Similarly time span and interaction of sector and time span also have no significant effect as  $F=0.242$ ,  $P=0.78 > .05$  and  $F=.063$ ,  $P=0.93 > .05$  respectively.

## DISCUSSION AND CONCLUSION

Study aimed to analyze the performance of insurance sector by considering sum assured i.e. the amount of money an insurance policy guarantees to pay up before any bonuses are added. In other words, sum assured is the guaranteed amount the policyholder will receive. In the present study, sum assured is compared on sector wise i.e. public and private, also with different time spans i.e. 2014-15, 2015-16 and 2016-17. Two way ANOVA has been used to see the effect of these factors individually and concurrently. The result shows that guaranteed amount paid to the policyholder is differed in public and private sector. Public sector insurance companies are paying higher amount than the private sector. Considering various time for the study, the same technique reveals that the guaranteed amount paid to the policyholder in various years is different throughout the time span. The sum assured in private sector is decreasing as the time passed and observed highest in 2014-15 in private sector and then decreased in 2015-16 and 2016-17. But in public sector sum assured has increased from 2014-15 to 2015-16 with higher amount and then again decreased with smaller rate in 2016-17. This means that public sector is more promising for the policy holders than the private sector. The interaction of sector wise and various time spans also do differ significantly in the sum assured. Results are diagrammatically represented by Fig. 14 This shows the impact of sector and time span on sum assured through solid arrows.

The study is also trying to see the performance of insurance companies by considering the lapse ratio. Lapse ratio shows the number of policies that are not

renewed compared to the number of policies that were active at the beginning of that same period. It is important to see the lapse ratio while analyzing the performance of insurance sector because the lower lapse ratio means continuous renewal of the policy since policy renewals mean continued earnings of the insurance companies. Two way ANOVA has been used to see the lapse ratio for different sectors and different time spans. Results show that lapse ratios are same across the sectors and also across the various time i.e. 2014-15, 2015-16 and 2016-17. Results are diagrammatically represented by Fig. 16 this shows the no impact of sector and time span on lapse ratio through dotted arrows. Although while monitoring the data closely, it is observed that the lapse ratios are decreasing with time in both the sectors which is a good indication for both sector. This means that now insurance companies are trying hard to perform better and striving to keep laps ratio low by having their policyholders consistently renew their policies.

## LIMITATIONS

The study was focused on only two parameters sectors and time span, further parameters such as cost of claim, revenue per policy holder, time to settle a claim etc. may be considered for analyzing the performance of insurance sector. Time series analysis may also be administered to see the past performance and future predictions. Present study considered only life insurance sector where general insurance sector has been untouched, further analysis may be done with general insurance sector too.

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[www.indiastate.com](http://www.indiastate.com)

## ANNEXURES

Table 1: Sum Assured (Rs. In Crore)

Sectors	Timespan		
	2014-15	2015-16	2016-17
Public Insurance Sector	a	b	c
Private Insurance Sector	d	e	f

Table 2: Lapse Ratio (In %)

Sectors	Timespan		
	2014-15	2015-16	2016-17
Public Insurance Sector	g	h	i
Private Insurance Sector	j	k	l

Table 3: Tests of Normality - Shapiro-Wilk

	Sum Assured			Lapse Ratio		
	Statistic	df	Sig.	Statistic	df	Sig.
LIC	0.94028	3	0.52	0.9929	3	0.83
BAJAJALLIANZ	0.95329	3	0.58	0.9472	3	0.55
BIRLASUNLIFE	1	3	0.99	0.9998	3	0.97
ICICIPRU	0.87773	3	0.31	0.9032	3	0.39
RELIANCENIP	0.96023	3	0.61	0.977	3	0.7
SBILIFE	0.94839	3	0.56	0.8939	3	0.36

## Sum Assured Analysis

Table 4: Descriptive Statistics

Dependent Variable: Sum Assured (In Crores)				
Sector	Time span	Mean	Std. Deviation	N
Private	T1	19666	20600	5
	T2	12286	5541.6	5
	T3	9730.3	5177.3	5
	Total	13894	12518	15
Public	T1	202127	.	1
	T2	342174	.	1
	T3	302715	.	1
	Total	282339	72213	3
Total	T1	50076	76734	6
	T2	67268	134767	6
	T3	58561	119700	6
	Total	58635	106489	18

**Table 5: Tests of Between-Subjects Effects**

<b>Dependent Variable: Sumassured</b>					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	190900000000.00	5	38170000000.00	237.64	0.00
Intercept	219400000000.00	1	219400000000.00	1366	0.00
Sector	180200000000.00	1	180200000000.00	1122.00*	0.03
Timespan	7662000000.00	2	3831000000.00	23.85*	0.01
Sector * Timespan	9809000000.00	2	4904000000.00	30.53*	0.00
Total	254700000000.00	18			
Corrected Total	192800000000.00	17			

a. R Squared = .990 (Adjusted R Squared = .986)

**Table 6: Descriptive Statistics**

<b>Dependent Variable:Lapse Ratio</b>				
Sector	Timespan	Mean	Std. Deviation	N
Private	T1	22.948	15.1446	5
	T2	19.316	10.175	5
	T3	14.094	5.24948	5
	Total	18.786	10.8228	15
Public	T1	5.69	.	1
	T2	4.01	.	1
	T3	2.76	.	1
	Total	4.1533	1.47025	3
Total	T1	20.0717	15.2685	6
	T2	16.765	11.0394	6
	T3	12.205	6.59208	6
	Total	16.3472	11.3228	18

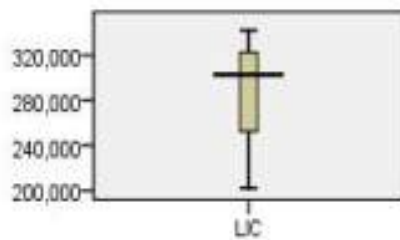
**Table 7: Tests of Between-Subjects Effects**

<b>Dependent Variable:Lapse Ratio</b>					
Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	737.701 <sup>a</sup>	5	147.54	1.228	0.355
Intercept	1315.533	1	1315.533	10.949	0.006
Sector	535.287	1	535.287	4.455	0.056
Time span	58.046	2	29.023	0.242	0.789
Sector * Time span	15.189	2	7.595	0.063	0.939
Total	6989.649	18			
Corrected Total	2179.479	17			

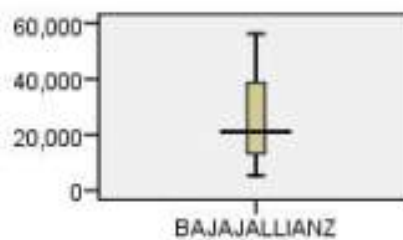
a. R Squared = .338 (Adjusted R Squared = .063)

**Normality of Data**

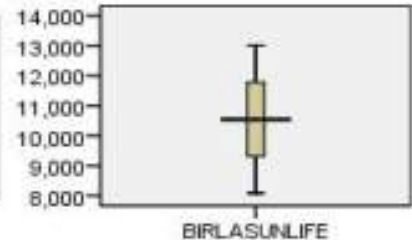
**Box Plots for Outliers (Sum Assured)**



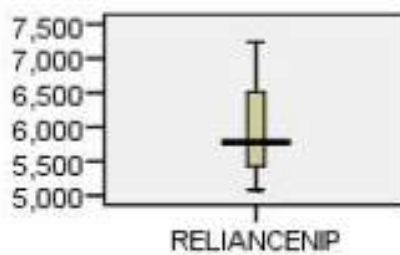
**Fig.1**



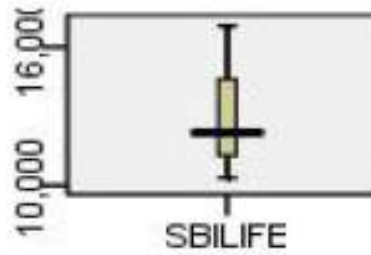
**Fig.2**



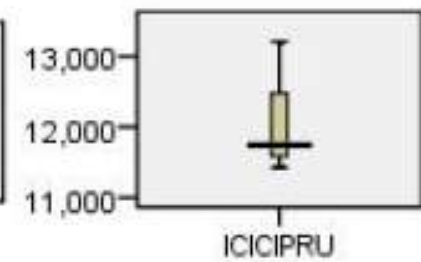
**Fig.3**



**Fig.4**

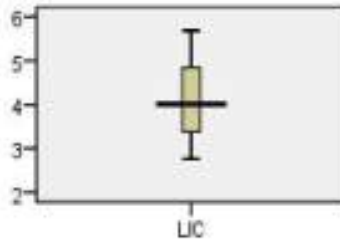


**Fig.5**

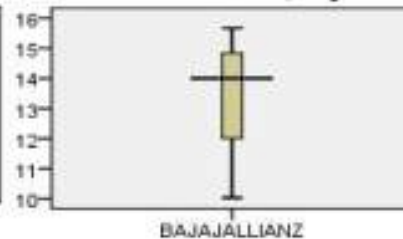


**Fig.6**

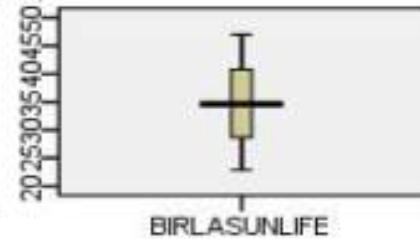
**Box Plots for Outliers (Lapse Ratio)**



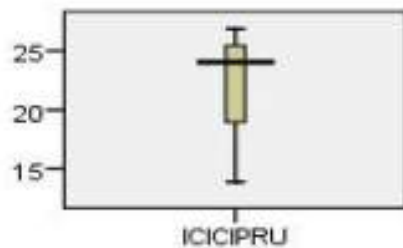
**Fig.7**



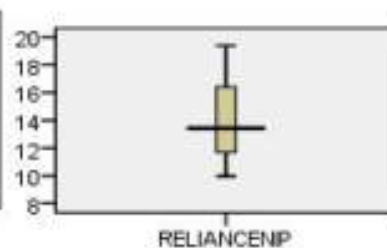
**Fig.8**



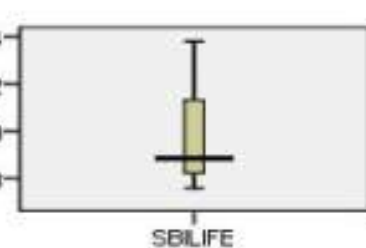
**Fig.9**



**Fig.10**



**Fig.11**



**Fig.12**

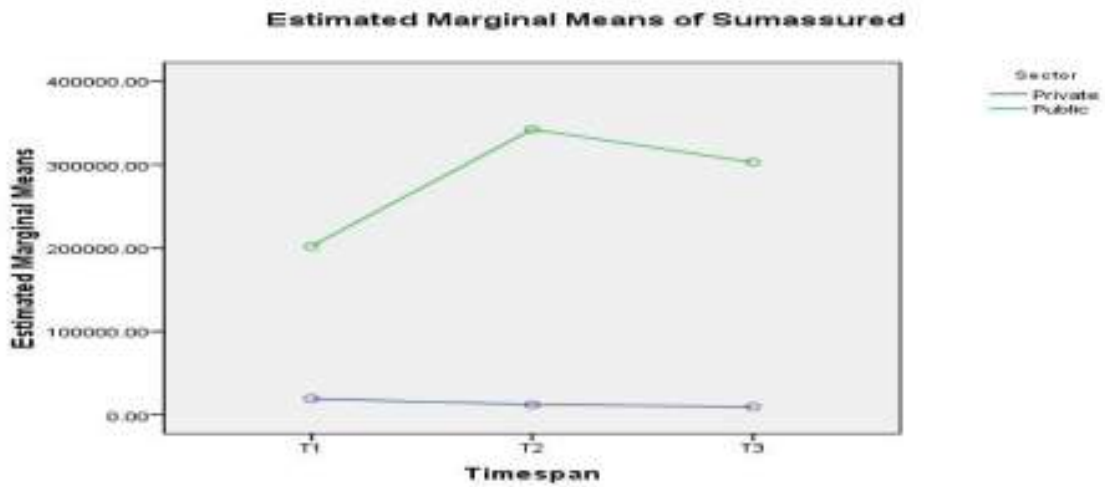


Figure 13:

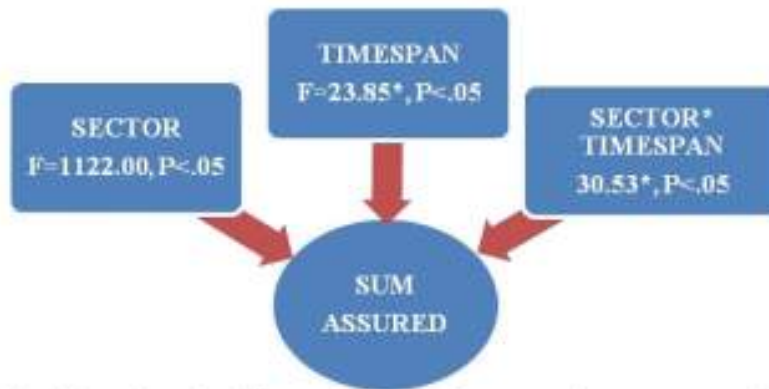


Figure 14: Showing significant impact of sector, time span and interaction Lapse Ratio Analysis

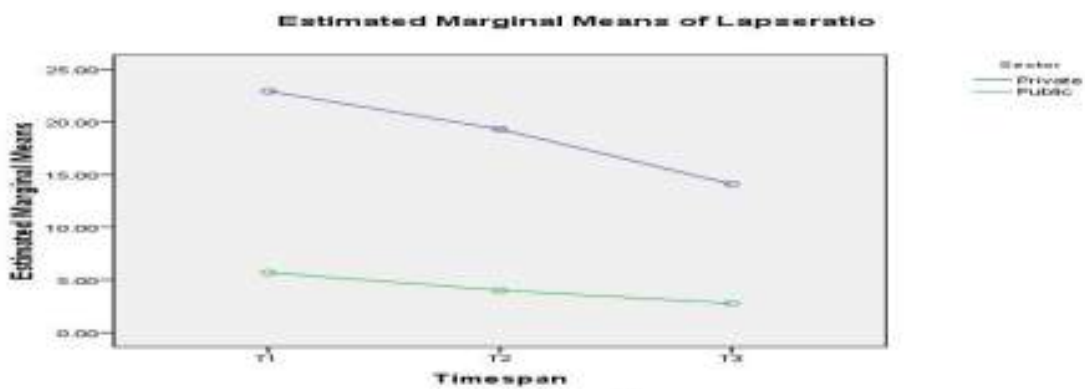
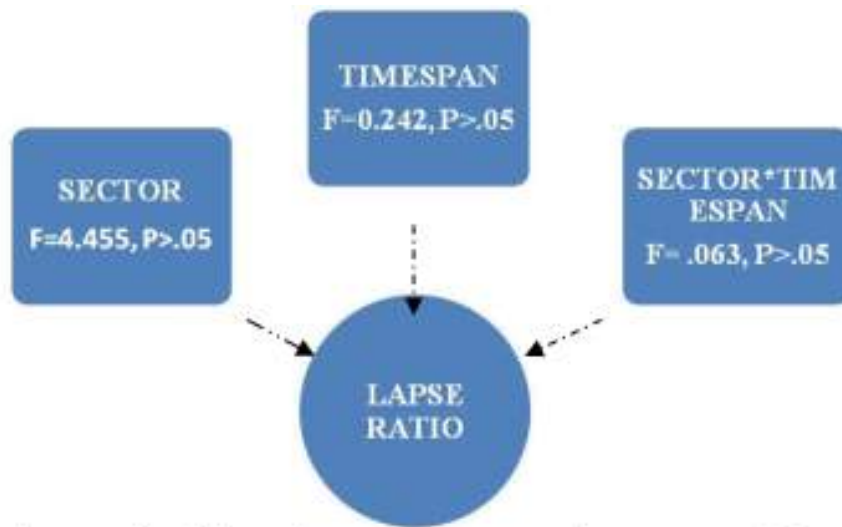


Figure 15:





**Figure 16: Showing no significant impact of sector, time span and interaction**

## PREDICTION OF EMPLOYEE TURNOVER IN ORGANIZATIONS USING MACHINE LEARNING ALGORITHMS

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*Employee turnover is one of the major issues for the organizations because it causes an adverse effect on the organizational performance, productivity and organizational strategies. With varied solutions for the employee turnover, organizations prefer the machine learning techniques to predict it. The more the prediction is accurate, the better actions organizations may take for the retention of employees in an organization. It also helps in the succession planning of the employees as well as helps the management to decide upon its strategic plans for the organizational growth. Human Resource Information System (HRIS) is one of the area from where the data can be fetched for the prediction of employees' turnover. One of the major focus of this paper is to avoid the inaccuracy in the prediction so that the prediction can be better validated. The data used in the study is taken from IBM communities' Watson Analytic Blog.*

**Keywords:** Employee Turnover, Machine Learning, Classification.

### INTRODUCTION

One of the major challenges for the organizations and the HR departments in all over the world has been the employee turnover ratio. It refers to the number or percentage of the employees who exit the organization and are replaced by recruiting and selecting new employees on the vacant positions. Predicting the employee turnover can be helpful for the human resource departments to estimate the cost-per-hire for budget purposes and to know the turnover ratio. Employee turnover negatively affect the organization like low workplace morale of the employees, organizational productivity and the long term growth strategies of the organization. Machine Learning can be one of the major tools to estimate the employee attrition and through the data produced, the management may decide retention planning and plan for succession. Various organizations now are taking steps and using machine learning programs to predict the attrition data owing to the availability of accurate machine learning programs and efficient algorithms

to predict the employee turnover. This paper represents the employee turnover and key machine learning techniques that can solve the issue.

### REVIEW OF LITERATURE

Korff et al. (2015) suggested that employee turnover in organizations has been a perennial problem. In organizational research, employee turnover, regarded as one of the consequences of work dissatisfaction has attracted considerable attention (Porter and Steers, 1973; Mitchell et al. 2001; Lee et al., 2004; Trevor and Nyberg, 2008; Allen et al. 2010; Grant et al. 2012; Parker, 2014). Johnston et al. (1987) investigated the problem of turnover within a sales force. They tested the relationship between organizational commitment, major facets of job satisfaction (pay, promotion, supervisor, work, and coworkers) and turnover among new sales people using cross-sectional and longitudinal data, and found that there was significant difference in organizational commitment between stayers and the leavers.

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Allen and Griffeth (2000) have argued that job performance has significant role to play in turnover. In a later study, Allen et al. (2010) argued that despite extensive research and organizational interest in turnover, there remains a gap between science and practice in this area. They have provided guidelines for evidence-based retention management strategies focused on shared understanding of turnover, knowledge of cause-and-effect relationships, and the ability to adapt this knowledge. Empirical evidence suggests that the establishment of well-defined organizational goals and objectives influence employee retention and job productivity. Kim et al. (2005) in their study on corporate orientation found that organizational direction and support had a significant impact on employee job satisfaction and overall commitment.

A study by the US Department of Labor (1993) on high performance work practices revealed that involving employees in decision-making, goals and the direction of an organization through participation in teams will help produce job satisfaction and reduce turnover. Cho et al. (2006) reported that organizations which incorporate such high-performance work practices are more likely to experience lower turnover rates for non-managerial employees. Huselid (1995) and Becker and Huselid (1999) argued that selective hiring procedures are necessary to ensure effective retention of the most qualified employees while lowering employee turnover in the long term.

A study by Kim et al. (2005) also revealed that employers with strong customer-centeredness and employee focus have a positive impact on employees' job satisfaction and overall organizational commitment, thus significantly reducing employee turnover. According to Shaw et al. (1998), organizations with substantial training opportunities should experience lower turnover rates. However, an interesting

finding by these researchers included a positive relationship between training and the discharge rate. They theorize that companies that provide more training are concerned about employee skills and performance, and thus experience a high percentage of employee terminations. Conversely, companies that experience a high discharge rate initiate training programs because of lower workforce skill levels (Shaw et al., 1998).

Cho et al. (2006) investigated the relationship between the use of human management practices and organizational performance. It found that companies providing incentive plans to employees are more likely to experience lower turnover rates among non-managerial employees. The authors theorize that a firm would further reduce its turnover rate if it applies reward systems in the form of incentive plans to more employees across the organization. Milman (2003) and Milman and Ricci (2004) concluded that the most significant retention predictors included intrinsic fulfillment and working conditions rather than monetary rewards. Similarly, the study by Walsh and Taylor (2007) revealed that although compensation and work-life balance are important, it is the absence of opportunity for professional growth and development that affects management retention and turnover (Walsh and Taylor, 2007).

Huselid (1995) reports that linking performance appraisals with incentive compensation are intended to align the interests of employees with those of shareholders (e.g. profit sharing plans). These linkages can create incentives which will align workers more closely with the long-interests of the firm resulting in better communication and increased tenure (Becker and Huselid, 1999; Delery and Doty, 1996; US Department of Labor, 1993). Huselid (1995) identified a link between organization-level outcomes and groups of high

performance work practices. Instead of focusing on a single practice (e.g. staffing), the simultaneous use of multiple sophisticated human resource practices was assessed. He concluded that the sophistication of those practices was significantly related to turnover, organizational productivity, and financial performance. Delery and Doty (1996) affirmed that the existence of formal or informal policies have many strategic implications that should affect employee retention.

## OBJECTIVES

The objectives of the study are given below:

- To understand the machine learning algorithms and implementation of algorithms to know the employee turnover in the organization.
- To compare the algorithms in machine learning to know the efficiency of it for prediction of the data.
- To understand various reasons of employee turnover in the organization.

## METHODOLOGY

Machine learning has two classifications of the data that is supervised learning and unsupervised learning. This research paper deals with supervised learning. The techniques used in the study are discussed below.

### Logistic Regression

Logistic regression is widely used model of statistics used to predict for binary or categorical dependent variable. It is a predictive analysis technique. It describes data and the relationship between one dependent binary variable and one or more ordinal, nominal, interval or ratio level independent variables.

## Naïve Bayes

Naïve Bayes is a classifier in the machine learning from the family of probabilistic classifiers based on the theorem of Bayes having strong independence assumptions between the features. Naïve Bayes classifier requires small amount of training data to estimate the necessary parameters. The underlying logic to use the Bayes' rule for machine learning is as follows: To train a target function  $f(X) \rightarrow Y$ , which is the same as,  $P(Y|X)$  one can use the training data to learn estimates of  $P(X|Y)$  and  $P(Y)$ . Using these estimated probability distributions and Bayes' rule new  $X$  samples could then be classified (Michael, 1997).

Formula for calculation

$$P(c|x) = \frac{P(x|c)P(c)}{P(x)}$$

$$P(c|X) = P(x_1|c) \times P(x_2|c) \times \dots \times P(x_n|c) \times P(c)$$

Above,

$P(c|x)$  is the posterior probability of class ( $c$ , target) given predictor ( $x$ , attributes).

$P(c)$  is the prior probability of class.

$P(x|c)$  is the likelihood which is the probability of predictor given class.

$P(x)$  is the prior probability of predictor.

### AdaBoost

AdaBoost is a practical boosting algorithm is an abbreviation for adaptive boosting. The equation for the calculation is

$$F(x) = \text{sign}\left(\sum_{m=1}^M \theta_m f_m(x)\right),$$

Where  $f_m$  stands for the  $m^{\text{th}}$  weak classifier and  $\theta_m$  is the corresponding weight. It is exactly the weighted combination of  $M$  weak classifiers. AdaBoost is used in conjunction with other algorithms of learning to improve performance. It is sensitive to noisy data. The individual learners may be weak, but as long as the performance of each one is slightly better than random guessing, the final model can be proven to converge to a strong learner.

### Random Forest

Random Forest algorithm is a popular tree based ensemble learning technique. The type of 'ensembling' used here is bagging. In bagging, successive trees do not depend on earlier trees — each is independently constructed using a different bootstrap sample of the data set. In the end, a simple majority vote is taken for prediction. Random forests are different from standard trees in that for the latter each node is split using the best split among all variables. In a random forest, each node is split using the best among a subset of predictors randomly chosen at that node (Liaw and Wiener, 2002). This additional layer of randomness makes it robust against over-fitting (Breiman, 2001).

### Support Vector Machine Application

A Support Vector Machine is defined by separating hyperplane. It is a discriminative classifier. These are supervised learning models. The output of the support vector machine algorithm is an optimal hyperplane which categorizes the examples. For a two dimensional data, hyperplane is a line dividing a plane in two parts where in each class lay in either side. For an unlabeled data, supervised learning is not possible.

### Experimental Design

The data is retrieved from the IBM communities' Watson Analytic Blog. This data is gathered for predicting the HR employee attrition and performance in the organizations. Weka, one of the data mining software is used for the analysis of the data.

### RESULTS AND COMPARISONS

The table 6 (See Annexure) compares the percentage of the correctly classified instances by various algorithms applied on the data. The Support Vector Machine is the best classifier with the 88.29% correctly classified instances though all other classifiers also perform the good results but the support vector machine turned out to be the best for the data. Key reasons for attrition of the employees were frequent business travel, distance from home, age, overtime and gap in promotion according to the support vector machine algorithm.

### DISCUSSION

Organizations in the coming future shall be more dependent on prediction models and machine learning algorithms for the prediction of employee factors in an organization. With the changing requirements of the industries, the machine learning algorithms may help organizations to specify the reasons for the issues like higher rates of employee turnover in the organization. Other employee factors like engagement, employee satisfaction, work-life balance will get the initial focus in introductory days of machine learning in India in large scale organizations.

### CONCLUSION AND FUTURE WORK

The paper presented various classifiers for predicting the employee turnover in organizations and the application of machine learning in predicting the data. The result of the algorithm finds that the support vector machine is better classifier for the data

available. For future studies, the authors can use the data from various organizations and can use the algorithms for the prediction of the turnover. It will not only answer the question of what is at risk but also what can be done for it? Applications of deep learning models for predicting turnover is also recommended for better understanding the use of machine learning in the area of HR.

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ANNEXURES

**Table 1: Stratified Cross-Validation Summary**

Correctly Classified Instances	Incorrectly Classified Instances	Kappa Statistic	K&B Relative Info Score
88.03%	11.97%	0.47	21.98%

Detailed Accuracy

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.422	0.032	0.719	0.422	0.532	0.491	0.835	.624	Yes
	0.968	0.578	0.897	0.968	0.931	0.491	0.835	0.953	No
<b>Weighted Average</b>	0.880	0.490	0.868	0.880	0.867	0.491	0.835	0.900	

Confusion Matrix

a	b
100	137
39	1194

Classified as:

- a = yes
- b = no

**Table 2: Naïve Bayes Classification**

Correctly Classified Instances	Incorrectly Classified Instances	Kappa Statistic	K&B Relative Info Score
78.97%	21.02%	0.37	-21.71%

Detailed Accuracy

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.637	0.181	0.404	0.637	0.494	0.385	0.774	0.536	Yes
	0.819	0.363	0.922	0.819	0.867	0.385	0.774	0.921	No
<b>Weighted Average</b>	0.790	0.334	0.838	0.790	0.807	0.385	0.774	0.859	

Confusion Matrix

a	b
151	86
223	1010

Classified as

- a = yes
- b = no



**Table 3: Ada Boost Stratified Cross-Validation Summary**

Correctly Classified Instances	Incorrectly Classified Instances	Kappa Statistic	K&B Relative Info Score
85.58%	14.42%	0.22	13%

Detailed Accuracy

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.156	0.010	0.755	0.156	0.259	0.300	0.772	0.499	Yes
	0.990	0.844	0.859	0.990	0.920	0.300	0.772	0.930	No
<b>Weighted Average</b>	0.856	0.709	0.842	0.856	0.813	0.300	0.772	0.860	

Confusion Matrix

a	b
37	200
12	1221

Classified as

a = yes

b = no

**Table 4: Stratified Cross Validation Summary**

Correctly Classified Instances	Incorrectly Classified Instances	Kappa Statistic	K&B Relative Info Score
85.85%	14.15%	0.21	5.93%

Detailed Accuracy

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.148	0.005	0.854	0.148	0.252	0.319	0.792	0.522	Yes
	0.995	0.852	0.859	0.995	0.922	0.319	0.792	0.940	No
<b>Weighted Average</b>	0.859	0.716	0.858	0.859	0.814	0.319	0.792	0.873	

Confusion Matrix

a	B
35	202
6	1227

Classified as

a = yes

b = no



**Table 5: Stratified Cross Validation Summary**

Correctly Classified Instances	Incorrectly Classified Instances	Kappa Statistic	K&B Relative Info Score
88.30%	11.70%	0.48	47.06%

Detailed Accuracy

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.430	0.030	0.734	0.430	0.543	0.503	0.700	0.408	Yes
	0.970	0.570	0.899	0.970	0.933	0.503	0.700	0.897	No
<b>Weighted Average</b>	0.883	0.483	0.872	0.883	0.870	0.503	0.700	0.818	

Confusion Matrix

a	b
102	135
37	1196

Classified as

a = yes

b = no

**Table 6: Comparisons of Various Algorithms**

Algorithms	Total Instances	Correctly Classified Instances	Correctly Classified Instances (%)
<b>Logistic Regression</b>	1470	1294	88.03%
<b>Naïve Bayes</b>	1470	1161	78.98%
<b>AdaBoost</b>	1470	1258	85.58%
<b>Random Forest</b>	1470	1262	85.85%
<b>Support Vector Machine</b>	1470	1298	88.29%

## SCHOLASTIC ACHIEVEMENT OF STUDENTS IN RELATION TO TEACHING OCCUPATION OF MOTHERS

**Manisha Pandey\***, **Kiran Snehi\*\***, **Sunita Sharma\*\*\***

*This study aims at examining how teaching occupation of mothers does impact student's academic performance. The main objective of the study is to analyze how teaching and non teaching occupation significantly influence secondary school student's academic performance in Indore, India. Descriptive survey research design was used in which data from 160 respondents was collected using Rao Achievement Motivation Test as self-administered questionnaire from four selected secondary schools within Indore. Stratified random sampling technique was used to collect sample from respondents. The data was analysed using regression, ANOVA and T test analysis. The result is explained in three forms, demographic information, descriptive analysis and inferential analysis. The result of the study indicated that students from a mother with teaching occupation perform well than those from others with non teaching occupation. Finally, recommendations are given to parents, teachers, policymakers and educational administrators.*

**Keywords:** Teaching Occupation, Academic Performance, Achievement, Motivation.

### INTRODUCTION

From the birth, mother is the first person involved in teaching infant and children in every society that is why the mother is recognized as a first and important teacher of a person's life spawn and plays important role in the socialization. A mother is the principal provider of the primary care that her child needs during the first six years of its life. The type of care she provides depends to a large extent on her knowledge and understanding of some aspects of basic nutrition and health care. Education means the process of getting knowledge. Academic performance means educational learning and achievement in schools, colleges and universities to get certain score, grades, ranks and promotion to next class and to get job in future for livelihood. One of a mother's highest obligations is the education of her children at the time when their mind is not amenable to instruction.

### Importance of a Mother

A child's whole future life, to a large extent,

depends on the teaching it receives in early childhood and it is needless to say that this first foundation of education cannot be well laid by an ignorant mother. Therefore, the importance of mother cannot be over emphasized. Though both mother and father make their world pleasant as Adekey (2002) stated that it was mainly through their efforts and abilities that children are socialized to become a productive citizen. Whenever parents possess the resources and skills apply them efficiently and joyfully for upbringing of their children. The entire society would benefit, and this brings joy and benefit to the nation and encourages development and peaceful co-existence. The children themselves feel good and bring happiness to their parents and the whole community.

Vellymalay (2012) stated that a child's capability to succeed in school depends on how successfully the child is managed by his/her parent in the environment. It is an environment where the child learns skills, attitude and behaviour that could mould

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them into productive and successful students. It is important to note that not every child comes from a home that could provide them with the requisite educational resource necessary for their academic success. In agreement with that, apparent socioeconomic status plays a significant role in providing these educational resources and appears to impose the greater impact on the child's educational outcomes.

### **Family Background**

Improving students' performance is one of the main concerns of every teacher. The teachers thus make use of different teaching strategies and techniques to maximize students' performance. However, the academic success of school students do not depend solely on their mental and physical abilities rather other factors are also contributory to academic excellence. This includes the social and family background of students (Brecùko, nd). According to Roggers (1997), at the school level, socioeconomic status is by far the single most important factor accounting for the variance in student performance.

### **Role of Mother's Education on Students' Academic Performance**

Commenting specifically on role of mother's education on students' academic performance, Englund, Luckner, Amy and Egeland (2004) found that mothers with higher education can provide more support to their children in problem-solving situations at preschool level. The children can be encouraged to develop higher expectations of educational attainment during the early years of their education. The educated mothers are also more involved in their children's studies and helped them as compared to mothers with no or less education. This early involvement by educated mothers contributes to high academic achievement at later stages of schooling. Williams, Williams & Ullman,

(2002) in their research study also found a similar result. The researchers surveyed 2019 parents of children aged 5 – 16 in England to find the degree of parents' involvement in their children's education. They found that parental education was positively related to parent-teacher contact. The more educated the parent, the greater was their involvement in their child's education.

However, according to Desforges and Abouchaar (2003), the magnitude of parental involvement in children's education diminishes as they get to higher classes. Maternal influence was found to be the leading factor over whether children stayed on at school and went on to study at university and to social mobility within the family. The link was strongest between mothers and daughters although there was still a distinct link between mothers and sons. By contrast the educational achievements of fathers made no significant impact on their offspring's academic accomplishments even though they may have higher income than their partner.

Prof Ian Walker, from Lancaster University Management School, one of the study's authors, told the Sunday Times: "It seems the mother-daughter relationship is now the transmission mechanism for social mobility. It used to be said that the father was the breadwinner and that would dictate household education decisions. If the father was richer you could afford to stay on at school rather than go out to earn a living. That is clearly no longer the case." Experts said that the change was due to greater gender equality and with mothers becoming stronger academic role models for their children, particularly their daughters.

### **Specialty of Mothers as Teachers**

Teachers especially, teach their children about the importance of education and working hard to achieve things. They also value their time with their children and take

advantage of every moment that they do have with them. However, being a teacher means that they have additional children whose learning depends on them. Parents depend on them to take care of their child, protect them from harm, and challenge them to their fullest potential. They have put in charge of their feelings, placed before them for their entertainment, and must educate each and every one of them. It is most often a thankless job, but it is the students that make it worth it.

**Work hard:** They are hard working and consistent at their job which automatically transmitted to their children. Utilize each and every moment to grade papers, copy, assess, plan and throw in an occasion chat session with a coworker. This kind of tendency makes their kids very attentive and consistent to their study.

**Time savvy:** They work in a manner that work has to be done in proper way and in a least time period.

**Precise:** They do not make the same mistake that they made previously. Hence their kids also have tendency to preciseness of assignment which increases their marks.

**Consistent:** Their consistency towards job influence kids to be consistent

**Good Communicator:** Because of type of job their good communication makes their children strong communicator.

**Dedication:** They worked with dedication which is helpful to make their kids dedicated towards the objective.

**Moral:** Their moral values increase morals of their kids.

**Ethical:** Their ethical values motivates kids to not to harm anyone which insist a healthy competition.

**Deep Understanding:** This makes their children calm and satisfied with performance.

**Knowledgeful:** They are able to answer their kid's queries as they are knowledgeable.

**Problem Solver:** Always they have problem solving approach which resolves their kid's problem within time.

**Examiner:** Their examiner capacity scrutinize kid's performance and recovery timely.

**Hopefull:** They are target oriented and hopeful of life makes an optimistic atmosphere at home which resulted good performance of students.

**Systematic:** They are systematic by which their kids learn organized study which increases performance.

**Involvement:** They involve their kids in domestic assignment which enhance time management of core curriculum.

## REVIEW OF LITERATURE

Review Related to Parents Involvement:

Wattenberg (1950) was of the view when parents ignore the child and devote little time to child as he grows older, his poor adjustment frequently leads to delinquency. The effect of maternal employment on children also depends on the age and sex of a child. If a child is small and the mother goes outside for job, it will definitely have a permanent negative effect on child.

Glueck and Glueck (1956) found greater emotional conflict in delinquent boys of working mothers than in boys of non-working mothers. NIPCCD (1978). It was found that children of the mothers in upper occupational level were more socially developed and their mothers felt less dependent upon schools for their children's social development. Ramcharan (1981) found in his study that the employment of mothers had neither a positive nor a negative effect on the socio emotional and educational development of the child. Working mothers of girls have higher level of anxiety for

children as compared to non-working mothers of girls. Children of mothers who had a low level of anxiety for children and interacted more with their children were found to have higher level of social maturity, a more positive self concept, a low level manifest anxiety and higher achievement in language and arithmetic than children of mothers who had a high level of anxiety and whose interaction with their children was low.

Sharma (1981) found in his study that working mother had positive relationship in acceptance - rejection encouragement-discouragement, democratic - autocratic trust-distrust and tolerance-hostility dimensions to their child. Working mothers significantly contributed to several problems in their child showing hate, autocratic attitudes and distrust also.

Kala (1986) found in his study that the two groups of working and non-working mothers do not differ in perceived parent child relationship. The girls from the working group and boys from non-working group showed better adjustment with peers. The boys from non-working group were better adjusted to teachers than those of working groups. The girls from both the groups do not differ in adjustment to teachers. Children from both the groups and specially the girls from working mothers group were better adjusted at home than those from the non working mothers groups. The boys from the two groups did not differ significantly in home adjustment.

Sharma (1986) found in his study that the self concept level of the children of working mothers was more than that of the children of nonworking mothers. The children of working mother were found to be better in concentration and confidence. Significant difference was found at the adjustment level in the children of both the groups. In comparison with the children of working mothers, the children of non-working

mothers were found to be more excited, anxious, tender hearted, sensitive, dependent and more protected. Taori (1986) in his study, that the children of working mothers were less intelligent, less excitable, more disciplined, more assertive and more independent than the children of non-working mothers. Children of working mothers had significantly more need achievement, nurture, affiliation. But their need for aggression was more satisfied. There was no significant differences in academic achievement of children of working and nonworking mothers.

Simmons and Blyth (1987) Lack of time can also affect school achievement indirectly through its impact on the mother's ability to adequately supervise and manage her child's out of school activities. Sharma (1988) found that children of working mothers had a greater feeling of rejection, they had more adjustment problem, social problem, health problem than those of non-working mother. The children of working mother had a greater feeling of insecurity. A significant difference existed between the children of working and non-working mothers regarding emotional adjustment and school adjustment but the children of working mother had more problems.

Sultana (1988) found in her study that there was no significant difference in academic achievement in English, social-studies, language, mathematics and natural sciences among children belonging to working and non-working mothers. There is no difference in academic achievement among children of working and non-working mothers of English and Hindi medium schools. Trivedi (1988) found that there is no significant difference between the achievement scores of the children of working and non-working mothers. Singh (1989) studied that significant differences existed between working and non-working women with regard to certain personality factors. No significant difference

was found in home, social and school adjustment between the two categories. Significant difference was found in health and emotional adjustment of working and non-working women. No significant difference was found among children of working and non-working women, regarding scholastic achievement.

Jain (1990) on the basis of her study concluded that children of educated working women have high emotional adjustment while children of non-working women have high social adjustment. Level of aspiration of the children of working women was higher than that of the children of nonworking women. Vijai (1990) found that there is significant difference in the personality of the male/female children of working mother and non-working mothers. High correlation was found between educational achievement and level of aspiration among male and female children of working mother while it was positive and moderate for the male and female children of nonworking mothers.

Chhaganlal (1992) found that non-teachers' children were significantly better than teachers' children in social value. Vijayan (1992) found that non-working mothers spent more time than working mothers in feeding and clothing their children. The educated mothers punish their children less. Mothers did not show any difference in shouting at their children due to their difference in education, employment and income. Mathur and Mishra (1994) examined the 'Influence of Maternal Employment' on children's personality. Its results show that maternal employment was associated with personality factors like outgoing/reserved, ego strength/expedient, apprehensive placid and restrained.

Pandya (1996) in his study he found that social adjustment of nonworking mothers daughters was higher than working mothers. Achievement motivation of working

mother's sons was higher than that of non-working mothers. Similarly school adjustment of the children of working women, studying in IX grade was better than that of non working mothers. Akhiani et al. (1999) found out that children of unemployed mothers had better comprehension ability than the children of employed mothers. Children of employed mothers faced more loneliness than the children of unemployed mothers, specially boys.

Goswami (2000) found in her study that working mothers' children were more achievement oriented than all other groups, while anxiety of the girls of working mothers found to be highest. Vinita (2003) found self concept of the children of Non-Working Women to be higher than the children of working women. The social, physical, temperamental and educational dimensions of self concept are found significantly different but the children of working and non-working women do not differ significantly in respect to the moral and interactual dimension of self concept.

Reena (2004) found the children of non-working mothers more anxious. Children of non working mothers are more hyperactive than children of working mothers. Need achievement of working mothers' children is higher. Children of working mothers are more assentive and independent. Children of working mothers have better comprehensive ability and better self concept. Ahmad and Khan (2012) underscored that parental socio-economic status (SES) exercise a deeper impact upon children's academic achievements. Most research outputs identified parents' educational level and occupational status as principal determinant factors in students' academic performance (Saifi and Mehmood, 2011; Al-Matalaka, 2014).

A different finding on the impact of parents' occupation was disclosed by Farooq et al.

(2011) in Pakistan where fathers' and mothers' education had a significant effect on students' overall academic achievement as well as on Mathematics and English scores in 9th grade but parental occupation had no significant effect on academic achievement. Another study by Singh and Singh (2014) in Pakistan revealed that the SES of parents does not make significant effect on the educational achievement of students but the parental educational level and health status of children has a significant role in determining the educational achievement and social adjustment of the children. Akhtar (2012) disclosed that higher grade achievers were not from the upper and lower classes rather students from middle class parents have scored better than others. A study by Hijazi and Naqvi, (2006) found that family income had no significant impact in determining students' achievement. It means students belonging to more affluent family do not give proper weight to studies. Ogunshola and Adewale (2012) on their part disclosed that parental SES did not have significance effect on the academic performance of the students rather health statuses of the students were identified to have statistical significant effect on the academic performance of the students. Besides other factors, SES is one of the most researched but debated factor among educational professionals that contribute towards the academic performance of students (Farooq et al., 2011) and results are not conclusive. Vellymalay (2012) explained that, parental involvement in the educational system has a paramount impact on children's achievement. Memon et al (2010) also came up with similar findings and found statistically significant relationship between parent's occupational status and academic performance of the students at matriculation examination. Availability of parental help to students in terms of doing home work was significantly related to academic performance of students in secondary examination

(Ahmad and Khan, 2012). On other hand, parental interaction with teacher was significantly related to academic performance of students in secondary examination (Ahmad and Khan, 2012). A study in Nigeria by Olayiwola et al. (2011) disclosed that academic achievement and numbers of friends are negatively associated and confirm that a unit increase in the number of friend make by the student will bring about 9.51% decreases in students academic performance.

### **Review Related to Academic Achievement:**

Pandit (1974) found that anxiety bore a relationship with academic achievement. Students having less anxiety were found superior in learning & achievement. They were more anxious than low achievers & learners in motivating content Situations. Grover (1979) tried to find out the relationship between parental aspiration certain personality traits and school achievement of the children. He revealed that there was significant difference between school achievement and personality traits of low aspiring parents and high aspiring parents.

Doctor (1984) Tried to investigate the relationship between classroom and pupil's psyche and their achievement. The study revealed that a classroom with high-class room climate & high pupil's psyche has high academic achievement. Academic Achievement was dependent on teacher's and pupil's behaviour, pupil's psyche and classroom climate. Agarwal (1986) attempted to study to understand the effect of parental encouragement on educational development of Secondary school student. He found the high Achieving group had been getting higher parental encouragement. There was difference in the amount of parental encouragement received by the student in the different regions.

Panwar (1986) Conducted a study on role of Academic achievement and school background in self-concept, self disclosure and inferiority feeling among the students. He concluded that Academic achievement, home background & school background has significant relationship. Arora (1988) Conducted a study on role of parent child relationship and teacher student relationship in the academic achievement of higher secondary school student of both sexes. She found that there is no significant relationship between education achievement of student and parent. Child relationship but teacher, teacher-student relationship and education achievement of student were found to be significantly correlated.

Trivedi (1988) tried to test scholastic achievement of adolescent children of working and non-working mothers. She concluded that the difference between the achievement scores of the children of working and non-working mother were not significant. Bhogayata (1989) conducted a meta analysis of the result of the studies on the relation between the measures of locus of control and academic achievement. The study revealed that the locus of control and academic achievement of the children of non-working women have highly negative correlation. Dixit (1989) attempted to study the effect of personality factor and self concept on education as well as to see the interaction among these variables. He reported that personality factors significantly influence the academic achievement.

Dixit (1989) attempted to study the effect of personality factor and self concept on education as well as to see the interaction among these variables. He reported that personalty factors significantly influence the academic achievement. Cherian (1990) investigated the relationship between the frequency of punishment experienced by children and their academic achievement. The study concluded that there was a

significant relationship between the frequency of punishment experienced by pupils & their academic achievement.

Gupta (1990) attempted of study to influence of frustration, adjustment and achievement among adolescent, significant negative correlation was between frustration and (a) adjustment (b) intelligence (c) academic achievement. Ray (1990) has discussed the students attitude towards studies and health as related to their Scholastic achievement. He pointed out that the students having favourable attitude towards studies and stable mental health has better scholastic achievement.

Bandhri (1991) tried to investigate the cause of low education achievement in government high school. He found that causes of poor achievement were low motivation, policy of liberal promotion to the next higher-class poor study habits, lack of parental involvement in education and poor teaching. Namrata (1992) tried to investigate the relationship between personality traits, stress, anxiety and achievement. The study revealed that there was an inverse relationship between academic achievement and level of stress as a whole. The students having lower level of anxiety tended to score higher in high school exams.

Mishra et al. (1993) tried to assess and compare the extroversion, Neuroticism and Academic Achievements of society disadvantage and socially advantaged students. They concluded that the socially disadvantaged students are more neurotic, lower on extraversion dimension of personality and poor in academic achievement. Smith and Mathew (1998) discussed the influence of teaching strategies methods, tactics and socio-economic status on the student achievement in the elementary & senior high school. The study concluded that academic achievement of students would better if teacher substitute the traditional & monotones methods with



the method modern tactics and strategies. Also concluded that students belonging to good socio-economic status have an advantage over the others.

Sharma (2001) tried to find out the relationship between intelligence and creativity with their academic achievement. She found that level of intelligence, creativity of students is significantly related to their academic achievement. Goel (2007) studied the influence of stress in relation to achievement of B.Ed. students and found that these student were in stress for their achievement. Singhal (2009) found that children whose parents were helpful in their academic activities were more academic achievement oriented than that of those who were not supported by their parents.

It can be concluded on the basis of above studies that academic achievement has been studied with various variables as anxiety, stress, intelligence, creativity, socio-economic status, parental encouragement etc. It has been found that the difference between the achievement scores of the children of working and non-working mothers were not significant. In few researches the locus of control and academic achievement of the children of non-working women was found to be having highly negative correlation. Children having parents' help were found to be more academic achievement oriented.

### **OBJECTIVES**

The main objective of current study is to analyze the scholastic achievement of students in relation to teaching occupation of mothers. To accomplish the above objective following subsidiary objectives has to be achieved:

- To find out the relationship between teaching occupation of mothers and academic performance of students.
- To evaluate significant difference between different genders of students

on their academic performance in relation to teaching occupation of their mothers.

- To evaluate significant difference among different age groups of mothers (as teacher) on academic performance of students.
- To evaluate significant difference among different level of qualification of mothers (as teacher) on academic performance of students.

### **HYPOTHESES**

1. There is no relationship between teaching occupation of mothers and academic performance of students.
2. There is no significant difference between two genders of students on their academic performance in relation to teaching occupation of their mothers.
3. There is no significant difference among different age groups of mothers (as teacher) on academic performance of students.
4. There is no significant difference among different level of qualification of mothers (as teacher) on academic performance of students.

### **SIGNIFICANCE OF THE STUDY**

Researches in the area of achievement and motivation have demonstrated that this motive plays a crucial role in the individual and group behaviour in a variety of situation. A review of research finding indicated correlation between need achievement, anxiety, age, parental behaviour, socio-economic status, dependence, education, aspiration, occupation, caste, etc. The investigator thought it is important and worthwhile to investigate how mother involvement encourages the achievement motivation of secondary school students

specifically if she is a teacher. Thus, there is a great need of research which can throw light on the mother involvement of secondary school students to increase achievement motivation among boys and girls. It was of great significance to study achievement and motivation and mother involvement of secondary school students.

## METHODOLOGY

**The Study:** The study was descriptive in nature with survey being used as data collection method to complete the study.

**Research Design:** Descriptive survey research design is used in which quantitative method of data collection is applied. Stratified random sampling technique was used to collect sample from respondents. Danial (2004) defined the Quantitative method of data collection as the explaining phenomena by collecting numerical data that are analysed using mathematically based method (a statistical method). 2\*4 factorial design was used to conduct the study. Table 1

### The Sample Design

**Population:** The population for the study was the students of various Higher Secondary School located at Indore.

**The Sampling Frame:** The study was conducted on the students of various Higher Secondary School located at Indore. Therefore, the students of various schools (in these cities) studying during the data collection phase of the study was formed the sampling frame for the study.

**Sample size:** The overall sample size for the study was 160 students. The sample was divided into demographic groups as discussed above under the research design heading.

**Sampling Element:** Individual students were used as the sampling elements of the study.

**Sampling Technique:** Stratified random sampling technique was used to collect

sample from respondents. The study had included equal representation on the demographic variable gender and proportionate representation to ensure that the demographic variables do not affect the results of the study and also to ensure that the results of the study are suitable for drawing generalizations for at least the city included in the study.

**Tools for data Collection:** Rao Achievement Motivation Test questionnaires on all demographic variables of the study were used to collect responses of the students of higher secondary schools. The questionnaires to evaluate the variables included in the study were administered after thoroughly reviewing the literature.

**Nature and Content of Rao Achievement Motivation Test Questionnaires:** The Rao Achievement Motivation Test questionnaire has been developed to provide a simple and objective measure of achievement motivation of secondary school students. The main purpose is to provide a measure for use by the classroom teacher. There are 20 incomplete sentences, each of which is followed by two possible alternatives A and B, out of which one is an achievement related item. Though both the alternatives are achievement oriented and socially acceptable, yet one of them employ a higher sense of achievement and excellence. The student has to indicate the alternative he or she generally prefers. The test may be administered to a group or an individual. It is suitable for use with both genders. There is no time limit but the group test takes around 8 to 10 minutes.

**Tools Used For Data Analysis:** The reliability of all the measures was computed by using Cronbatch Alpha ( $\alpha$ ). Validity of all measures was ensured while implementing. The relationships between dependent and independent variables was established through simple linear regression (one independent and dependent). The

relationships between the independent and dependent variables was established for each of the cells in the research design t-test was used to evaluate the significance of difference between different cells of research design on the mean scores of all the variables.

**Procedure for Data Analysis:** The data collected were analysed using statistical package for social science (SPSS), version 20. Therefore, the data were explained in three forms, demographic information, descriptive analysis and inferential analysis.

## RESULTS AND DATA ANALYSIS

### Consistency Measures of Variables

First of all consistency of all the questionnaires was checked through item to total correlation. Under this correlation of every item with total was measured and the computed value is compared with standard values and found all items were consistent.

### Reliability Measure

Reliability test of all the variables were carried out using SPSS software and the reliability tests measured are given in Table 2

The value of reliability measure by Cronbach's alpha is greater than .801 which is above the standard value for reliability. Hence, concluded that data is highly reliable.

### Validity

The validity of a scale can be assessed in several ways. There are several categorization systems used (e.g., face, content, predictive, construct, convergent, discriminant), however most researchers assess validity of their scale through subjective (i.e., face and content), criterion, or construct validation procedures (Singh and Rhoads, 1991).

**Face validity:** Face validity of both the measures was applied to the questionnaire while selecting the statements (elements) for the measures and it was found to be very

high. It referred to the degree to which the all items looks right and appears to measure the knowledge or abilities based on the subjective judgment of the examinees who took it.

### Regression

Linear regression was applied between qualification of mothers (occupation teacher) as independent variable and achievements of students as dependent variable.

The result of regression Table 3, Table 4, Table 5 indicates that Qualification of mothers have direct positive effect on Achievement motive in different ratio.

### T-Test

T-test was applied to evaluate difference between male and female students of secondary school. The result obtained by applying t-test was compared with table value of T-test at 5% level of significance.

The Levene,s test value are mentioned at .019% of significance level shows that the two sample are having unequal variance and the respective T values are also shown in above table which suggested that the null hypothesis that there is no significant differences between two gender is not accepte (Table 7).

### Univariate Analysis of Variance

Levene's test was applied to evaluate homogeneity of groups on error variances. The F value is 8.742 which is significant at 0.005% level of significance i. e. the null hypotheses stated as "The groups based on gender and qualification are homogenous" is rejected, therefore it can be interpreted that, the error variances of groups formed on the basis of gender and qualification of establishment are non-homogenous. The result was important for selecting Post hoc test, therefore gender and qualification of establishment factors are taken to test Post hoc (Table 8).

The model used for ANOVA has good fit as indicated by adjusted R square value of 0.188. The model fit was tested using F test and the value of F was found to be 8.076 which is significant at 0.002% level of significance, indicating that 18.8% errors in the dependent variable are explained by three independent variables i.e., age, experience and year of establishment and overall model fit is high (Table 9).

Qualification of Mothers: 1= UG, 2= PG, and 3= Above PG Table 10 showing that there is no significant difference between Qualification of Mothers of UG and PG on student achievement but has significant difference between UG and Above PG and PG & Above PG.

## CONCLUSIONS

On the basis of results, it is arrived at following conclusions that there is significant relationship between Achievement, Motivation and mother involvement among secondary school male students. There is significant relationship between Achievement Motivation and mother involvement among secondary school female. Thus, Achievement, Motivation and mother involvement are directly related to each other, that means with the increase in mother involvement, Achievement and Motivation will also increase and vice-versa.

## Educational Implications

The research in the field of personality factors among students is very much helpful for the educationist, administrator and teachers. The personality factors like achievement motivation helps the students to have higher academic achievement as studied by different scholars. Following suggestions can be given for improving achievement and motivation. Since this desire arouses from within the students, so they should be motivated to have more achievements. Children should be trained to say positive things to them i.e.

“I will do it”, “I have to do it” and I don’t have any choice except to do it.” The child should speak out these words loudly than in a whisper and then finally keep repeating to himself. The teacher can assign some small jobs with definite target to the students who have weak achievement motivation so that they can develop the confidence to achieve the target. The child should be kept getting rewards in the form of praise or incentive so that he can develop a strong will power to achieve more.

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## ANNEXURES

**Table 1**

School	Male Student	Female Student	Total
IPSA	20	20	40
DPES	20	20	40
INDUS IND	20	20	40
Prestige	20	20	40
<b>Total</b>	80	80	160

**Table 2**

Cronbach's Alpha <sup>a</sup>	Cronbach's Alpha Based on Standardized Items <sup>a</sup>	N of Items
.801	.803	20

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

**Table 3 : Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.302 <sup>a</sup>	.091	.085	4.24738	2.269

a. Predictors: (Constant), Qualification

b. Dependent Variable: Achivementmotive

**Table 4 : ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	285.135	1	285.135	15.806	.000 <sup>a</sup>
	Residual	2850.359	158	18.040		
	Total	3135.494	159			

a. Predictors: (Constant), Qualification

b. Dependent Variable: Achivementmotive

**Table 5 : Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	38.107	.904		42.156	.000
	Qualification	1.689	.425	.302	3.976	.000

$Y = a + bx$

$Y = 38.107 + 1.689x$

Where,

X i.e. x = Qualification of mothers (independent variable)

Y = Achievement motive (dependent variable)

The result of regression table from the coefficient table indicates that Qualification of mothers have direct positive effect on Achievement motive in different ratio.

**Table 6 : Group Statistics**

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Achievementmotive	1	80	47.9750	4.70920	.52650
	2	80	41.9125	4.13137	.46190

**Table 7 : Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Achievementmotive	Equal variances assumed	7.463	.019	3.339	158	.018	.93750	.70040	2.32085	.44585
	Equal variances not assumed			3.339	155.368	.018	.93750	.70040	2.32103	.44603



**Table 8 : Levene's Test of Equality of Error Variances<sup>a</sup>**

Dependent Variable: Achivementmotive

F	df1	df2	Sig.
8.742	5	154	.005

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Qualification + Gender + Qualification \* Gender

**Table 9 : Tests of Between-Subjects Effects**

Dependent Variable: Achivementmotive

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	366.433 <sup>a</sup>	5	73.287	8.076	.002
Intercept	273648.351	1	273648.351	1.522E4	.000
Qualification	330.338	2	165.169	9.186	.000
Gender	35.265	1	35.265	1.961	.163
Qualification * Gender	.939	2	.469	.026	.974
Error	2769.061	154	17.981		
Total	277949.000	160			
Corrected Total	3135.494	159			

a. R Squared = .117 (Adjusted R Squared = .188)

**Table 10 : Multiple Comparisons**

Dependent Variable: Achivementmotive

	(I) Quali- fication	(J) Quali- fication	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Dunnett T3	1	2	-.6077	.85713	.858	-2.6866	1.4712
		3	-3.4119*	.82986	.000	-5.4279	-1.3958
	2	1	.6077	.85713	.858	-1.4712	2.6866
		3	-2.8042*	.75170	.001	-4.6268	-.9815
	3	1	3.4119*	.82986	.000	1.3958	5.4279
		2	2.8042*	.75170	.001	.9815	4.6268
Dunnett t (2- sided) <sup>a</sup>	1	3	-3.4119*	.84876	.000	-5.3028	-1.5209
	2	3	-2.8042*	.82115	.002	-4.6336	-.9747

Based on observed means. The error term is Mean Square(Error) = 17.981.

\*. The mean difference is significant at the .05 level.

a. Dunnett t-tests treat one group as a control, and compare all other groups against it.

## TESTING EFFICIENCY OF BRICS NATIONS STOCK MARKETS: AN EMPIRICAL STUDY

Harmender Singh Saluja\*, Navindra Kumar Totala\*\*

*The present study will empirically explore Weak Form of Market Efficiency of BRICS Nations Stock Markets, comprising stock markets of Brazil, Russia, India, China and South Africa. Natural returns will be calculated by taking log difference changes in the indices values of the respective indices of BRICS Nations Stock Markets, for a period of 5 years from 1<sup>st</sup> April 2013 to 31<sup>st</sup> March 2018. The normality of the indices returns will be tested by Descriptive Statistics and One Sample Kolmogorov-Smirnov Test (KS Test). The Weak Form of Market Efficiency of the daily indices returns will be tested by Runs Test. The result will show the present level of stock market efficiency of the BRICS Nations Stock Markets.*

**Keywords:** Weak Form Market Efficiency, BRICS Nations' Stock Markets..

### INTRODUCTION

Brazil, Russia, India, China and South Africa (BRICS) are foremost emerging economies and political powers at regional and international level. Recent economic reforms, development in multinational companies, deregulation of financial systems, advances in information technology, growth in international capital flows and abolishment of foreign exchange control in these economies are attracting a large number of foreign institutional investors, international portfolio managers, and foreign direct investment for the effective utilization of their funds. The prominence of these countries arises from their rapid economic development and liberalized capital market policies. Digitalization and technological advancement makes easy transfer of money and information in cross-country markets also encourage the international investors to invest in these economies.

The communal strength of the BRICS economies is of ever increasing importance to the strength of the global economy. At the same time as matured economies across the world struggling with immense budget

deficits, weak growth and rising unemployment, the BRICS are mounting swiftly, lifting people out of poverty and driving the global economy. The movement towards enhanced earnings and portfolio diversification makes a way for the worldwide capital movement in the form of both direct and portfolio investments. It ultimately leads to flow of funds to these stock markets. This flow of funds depends on the informational efficiency of the stock markets. So, it becomes essential to empirically examine the form of market efficiency of BRICS Nations Stock Markets.

### BRICS Nations

BRIC is the acronym for of four major emerging economies namely Brazil, Russia, India and China. The four BRIC countries are distinguished from a host of other promising emerging markets by their demographic and economic potential to rank among the world's largest and most influential economies in the 21st century. Together, the four original BRIC countries comprise more than 2.8 billion people or 40 percent of the world's population, cover more than a quarter of the world's land area over three

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continents, and account for more than 25 percent of global GDP.

Till 2010 it was called BRIC as there were only four nations and with the inclusion of South Africa in 2011, it was changed to BRICS. All the BRICS nations are developing and walking toward rapid industrialization. In 2015, the five BRICS countries represent over 3.1 billion people, or about 41 percent of the world population; four out of five members (excluding South Africa) are in the top 10 of the world by population. As of 2018, these five nations have a combined nominal GDP of US\$18.6 trillion, about 23.2 percent of the gross world product, combined GDP (PPP) of around US\$40.55 trillion (32 percent of World's GDP PPP) and an estimated US\$4.46 trillion in combined foreign reserves. Overall the BRICS are forecasted to expand 4.6 percent in 2016, from an estimated growth of 3.9 percent in 2015. The World Bank expected BRICS growth to increase to 5.3 percent in 2017. The BRICS have received both praise and criticism from numerous commentators. Bilateral relations among BRICS nations have mainly been conducted on the basis of non-interference, equality, and mutual benefit.

### **Stock Market Efficiency**

Market efficiency indicates the ability of the market to receive, incorporate and reflect the relevant information in the share prices quickly and accurately. The concept of an efficient market describes a market consisting of a large number of rational, profit-maximizing, actively competing activities with each other to predict future market values of individual securities, and where, important current information is almost freely available to all participants. Stock market efficiency refers to a state in which current stock prices reflect all the publicly available information about the security and market (Fama, 1965, 1970).

### **Weak Form of Market Efficiency**

The Weak Form of Market Efficiency emphasizes that the current market price of a security fully reflect all information including history of past prices, trading volume data, and any other relevant market generated information. The Weak Form of the Efficient Market Hypothesis holds that information on the past movements of stock prices and volumes cannot be used to predict future stock prices. The Weak Form of Market Efficiency holds that prices have no memory and yesterday has nothing to do with tomorrow. Therefore, there is no benefit as far as forecasting the future is concerned in examining the historical sequence of the prices (Fama, 1970).

### **REVIEW OF LITERATURE**

A research was conducted to compare the stock market efficiency of Brazil, Russia, India and China (commonly referred to as BRIC). The profitability of trading rules associated with the Simple Moving Average (SMA), the Relative Strength Index (RSI), the Moving Average Convergence Divergence (MACD) and the Momentum (MOM) were evaluated for this purpose. It was found that these indicators were most profitable in the Russian Stock Market. The Brazilian Stock Market was found to be the most efficient market among the BRIC (Terence et. al., 2010). Another research explored for non linear dynamics and volatility of stock indices of BRIC economies. The findings highlighted trend reversals in Russian, Indian and Chinese markets. Study also concludes that the Indian Stock Market was found to be the least volatile amongst the selected four economies (Karamchandani, et. al., 2014).

Another attempt was made to test Weak Form of Market Efficiency for the stock markets of BRIC countries by using Jarque-Bera Test, Run Test, Kolmogorov-Smirnov (K-S) Test, Serial Correlation and GARCH Model had been applied. The study used daily data

for stock indices of the Brazil, Russia, India and China for the period of 1st July 2011 to 31st August 2015. Study found that all tests rejected the hypothesis of random walk for all BRIC stock markets, except the Runs Test, which supports the hypothesis of random walk for Brazil and China. Thus, the results of the study make clear that inefficiency was present in the stock markets of BRIC countries. Further, the study provided clear-cut results that certain anomalies exist in these stock markets, which are making these stock markets inefficient. The findings of the study also revealed that in these markets investors had chances of earning extra profits by forecasting the security prices (Harikumar and Susha, 2016).

### RATIONALE OF THE STUDY

The BRICS Nations economies are characterized by large-scale production, technological development, liberalization of investment policies, lower labor and production costs, large population and huge consumptions of goods and services. This will provide the companies to expand their business. All these features attract the portfolio managers for the effective utilization of their fund in these stock markets. The investment in the stock market depends on information flow, indicates the stock market efficiency. In this context, the present study empirically tested the Weak Form of Market Efficiency in BRICS Nations stock markets.

### OBJECTIVES

To check the normality of daily index returns of BRICS Nations Stock Markets.

To test the Weak Form Market Efficiency of indices of BRICS Nations Stock Markets.

### Null Hypotheses

To test the above objectives following Null Hypotheses were drawn:

**H<sub>0</sub><sub>1</sub>:** Daily index returns of BRICS Nations Stock Markets are normally distributed.

**H<sub>0</sub><sub>2</sub>:** Daily index returns of BRICS Nations Stock Markets are Random i.e., Weak Form Efficient.

### METHODOLOGY

**The Study:** The study is an empirical one where Weak Form of Market Efficiency of respective indices of BRICS Nations Stock Markets has been tested.

**The Sample:** The data sample consisted of daily closing prices of selected indices of BRICS Nations' Stock Markets covering a time-period of 5 years, from 1<sup>st</sup> April 2013 to 31<sup>st</sup> March 2018. The sample indices were BVSP Index (Brazil), MICEX Index (Russia), S&P CNX Nifty (India), Shanghai Composite Index (China) and FTSE/JSE Index (South Africa).

**Tools for Data Collection:** The research is based on secondary data. The available secondary data were collected from official website of selected stock markets.

**Tools for Data Analysis:** Natural returns were calculated by taking log difference changes in the index values. The normality of the data set was checked by Descriptive Statistics and One Sample Kolmogorov-Smirnov Test (KS Test) using SPSS 17 Version. The Weak Form of Market Efficiency of the indices of BRICS Nations Stock Markets was tested with the help of Non-parametric Runs Test through software SPSS 17.

### ANALYSIS AND INTERPRETATION

#### Descriptive Statistics

The Descriptive Statistics can be interpreted to examine the normal distribution of index returns. Values for Skewness at 0 and Kurtosis at 3 reveal that the observed distribution is normally distributed. Table 1 showed that on application of Descriptive Statistics on daily index returns of BRICS Nations Stock Markets, it was found that the value of Skewness and Kurtosis for all the indices companies were not equal to 0 and 3

respectively. So, the Null Hypothesis,  $H_{01}$  Daily index returns of BRICS Nations Stock Markets are normally distributed was rejected. It indicates that the daily index returns of BRICS Nations Stock Markets were not normally distributed during the study period.

### **One Sample Kolmogorov-Smirnov Test (KS Test)**

Non Parametric One-Sample Kolmogorov-Smirnov Test (KS Test) was applied to test the normality of the data series. The KS results were shown in Table 2, which indicated that  $p < 0.05$  for the Z at the 5 percent level of significance for all the indices of BRICS Nations stock exchanges. So, the Null Hypothesis;  $H_{01}$  Daily index returns of BRICS Nations Stock Markets are normally distributed was rejected. The rejection of Null Hypothesis showed that daily index returns of BRICS Nations stock exchanges were not normally distributed during the study period into consideration.

### **Runs Test**

Non parametric Runs Test was applied to test the Weak Form of Market Efficiency of indices of BRICS Nations Stock Markets. On application of Runs Test, using Median as base, as shown in Table 3, it was found that for all the indices, the calculated P Values  $> 0.05$  and the calculated Z Values fall in the acceptance region limited by the critical value  $\pm 1.96$  at 5 percent level of significance. So, the Null Hypothesis,  $H_{02}$  Daily index returns of BRICS Nations Stock Markets are Random i.e., Weak Form Efficient was accepted. It indicated that there is an existence of Weak Form Efficient for the indices of on the basis of Runs Test.

### **DISCUSSION**

On the basis of One-Sample Kolmogorov-Smirnov Test (KS Test) null hypothesis the  $H_{01}$  was rejected and on the basis of Runs Test the  $H_{02}$  was accepted. The BRICS indices

found to be not normally distributed. Runs Test proved the existence of Weak Form of Market Efficiency throughout all the countries. Thus, results are similar across the all BRICS countries. It shows that economic environment; especially stock exchanges seem to be similar. Hence, the BRICS organizations can take similar measures for uplifting of stock markets. Nations other than BRICS can take a note of this result for bringing of additional and extra ordinary profits because results shows that the BRICS Nations are having an avenue of extra ordinary profit generations.

### **CONCLUSIONS**

On checking the normality of daily index returns of BRIC Nations' Stock Markets by application of One Sample Kolmogorov-Smirnov Test, it was found that the daily indices returns of indices of BRIC Nations Stock Markets were not normally distributed. On application of Non Parametric Runs Test, taking Median as base, Weak Form Market Efficiency was found in all the BRICS Nations Stock Markets. Finally, it is concluded that since the data set is not normally distributed, it calls for further application of Non Parametric Tests. So, non-normality in this paper should be followed by the results of Runs Test stating that there exists Weak Form Market Efficiency in the BRICS Nations Stock Markets.

### **SUGGESTIONS**

It is suggested that BRICS Nations organization should be used as a common platform to fetch next level of market efficiency and ultimately strong form of market efficiency. Common measures may be introduced simultaneously; so that without affecting intra relationship and interdependency of the markets, improvement measures may be under taken. International portfolio managing firms may similarly and simultaneously invest into all the BRICS nations to cover and average out country risk.

## IMPLICATIONS

It is implicated that similarity exists in the stock exchanges, stock markets and economic environment in the BRICS nations. BRISC can be used as a platform for safeguarding their common economic environment. There is a potential for common international stock exchange among the BRICS.

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## ANNEXURES

Table 1: Results of Descriptive Statistics

Descriptive Statistics									
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
BVSP	1231	-1.74884	1.76148	.0003295	.07228201	.238	.070	565.105	.139
MICEX	1231	-1.14189	.093669	.0003907	.01198268	-.174	.070	10.383	.139
Nifty	1231	-6.09725	.037379	.0004651	.00923234	-.401	.070	2.895	.139
SC	1231	-8.87317	.056035	.0002831	.01484114	-1.255	.070	7.501	.139
FTSE/JSE	1231	-3.62147	.0415927	.0002712	.00935291	-.207	.070	1.449	.139
Valid N (list wise)	1231								

Table 2: Results of KS Test

Variables		BVSP	MICEX	Nifty	SC	FTSE/JSE
N		1231	1231	1231	1231	1231
Normal Parameters <sup>a,b</sup>	Mean	.0003295	.000390	.000465	.0002831	.00027120
	Std. Deviation	.0722820	.011982	.009232	.0148411	.00935291
Most Extreme Differences	Absolute	.325	.058	.068	.127	.054
	Positive	.325	.052	.046	.108	.037
	Negative	-.324	-.058	-.068	-.127	-.054
Kolmogorov-Smirnov Z		11.418	2.048	2.375	4.466	1.901
Asymp. Sig. (2-tailed)		.000	.000	.000	.000	.001
a. Test distribution is normal.						
b. Calculated from Data.						



**Table 3: Results of Runs Test**

<b>Variables</b>	<b>BVSP</b>	<b>MICEX</b>	<b>Nifty</b>	<b>SC</b>	<b>FTSE/JSE</b>
Test Value <sup>a</sup>	.0002284788 51	.0001348270 25	.0004370867 93	.0007573865 10	.0004437818 74
Cases < Test Value	615	615	615	615	615
Cases >= Test Value	616	616	616	616	616
Total Cases	1231	1231	1231	1231	1231
Number of Runs	622	603	582	584	593
Z	.314	-.770	-1.947	-1.853	-1.340
Asymp. Sig. (2-tailed)	.754*	.441*	.059*	.064*	.180*
a. Median					

Notes: if the Z-statistic is greater than or equal to  $\pm 1.96$ , then we cannot be accepted null hypothesis at 5 percent level of significance.

\* Indicates acceptance of the null hypothesis that successive price changes are independent.

## WOMEN ENTREPRENEURSHIP AND WOMEN EMPOWERMENT IN INDIA: A CASE STUDY OF JWALA MAHILA SAMITI

**Sakshi Pachorkar\*, Samruddhi Kawishwar\*, Parul Sharda\*\***

*Business and management sectors in India have rose to a marvellous extent over few years. Moreover, it wouldn't be inappropriate to say that the rise has arisen due to the involvement and contribution of the women section of the society. Over the past few years, with the increment in literacy rate, urbanisation, education level, standard of living etc; the society has undertaken these changes positively and hence, has provided free grounds to women to actively participate and take a stand equally with the men section of the society in almost every domain. This has given growth to Women Entrepreneurship and Empowerment. It says that any venture or organisation initiated by a woman or group of women through the realisation of their thinking capabilities, innovative ideas and mindset, and putting these factors altogether so as to initiate, create, co-ordinate, organise, direct, operate and control the setup effectively and efficiently is designated as Women Entrepreneurship. The paper hereby is the study of women as entrepreneurs and empowerment of women in India with a case study of a NGO, Jwala Mahila Samiti, run by the women, for the women, of the women aimed at providing assistance and aids to women. Overall, the objective is to study the threefold: First is it studies the status of women as entrepreneurs. Second is the role of government in the development of women entrepreneurship in India. Third is to study women empowerment and its encouragement among the society.*

**Key Words:** Women Entrepreneurship, Women Entrepreneur, Women Empowerment, NGO, Jwala Mahila Samiti.

### INTRODUCTION

India ranks second in the records of the most populous country globally. The sex ratio of the country is, as observed in the survey recently, 1.070 i.e. 1070 males per 1000 females. This represents almost equal contribution of both the genders towards population density of the country, but unfortunately there is no compatibility between the both in respect of their contributions in the economic development and prosperity of the country due to the differences, gender gaps, traditional values, ethics, etc.

Over the past few years, with the advancement of technologies and broadened mindset, and the rise or increment in the literacy rate, urbanisation,

industrialisation, availability of resources, gap filling function, educational level, standard of living, government interventions, modernised thinking and all other factors; the society has undergone major positive changes. Hence this has assisted the women section of the society by providing free grounds to them to actively participate and take a stand equally with the men section of the society in every possible sector. This has given rise to the term "Working Women" and "Women Entrepreneur."

Any start-up or venture or organisation formulated or initiated by woman or group of women as a function of their thinking capabilities, innovative ideas, mindset, and putting these factors altogether to initiate, create, co-ordinate, organise, direct, control

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and operate the formulation or initiative efficiently and effectively is termed as “Women Entrepreneurship.” Though, the latter functioning can allow the entrance of men into the venture as per the choices and requirements. The Government of India has defined women entrepreneur with a broader view as “A women entrepreneur is defined as an enterprise owned and controlled by women having a minimum financial interest of 51 percent of the capital and giving at least 51 percent of employment generated in the enterprise to women.”

**LITERATURE REVIEW**

Entrepreneurship is the field studied by certain managers, economists, professionals and entrepreneurs as well. There were two literature reviews published in the 1980s, five reviews in 1990s and twelve reviews in 2000s (up to 2016). These are covered in detail in the following sub-sections.

Summary of the Literature Review articles published on Women Entrepreneurship

S. No.	Author (Year)	Journal	Key Findings	Theory
1	Bowen and Hisrich (1986)	Academy of Management Review	First literature review paper on female entrepreneurs. Examined literature from an entrepreneurial career perspective and posit a career model containing determinants of women entrepreneurial behaviour.	Career theory
2	Birley (1989)	Journal of Small Business Management	The major difference between female entrepreneurs and male entrepreneurs is in their market-entry choices. There is a need to examine subtle factors like	Proposed a new theory- supply of entrepreneurs are situationally and culturally bound

S. No.	Author (Year)	Journal	Key Findings	Theory
			cultural conditioning and experiences.	
3	Moore (1990)	Journal of Business Ethics	Current studies are limited, fragmented and unrelated. There is a need to develop a statistical research base, typologies and models. Field in an initial stage of paradigm development and there is a need to build theories.	
4	Brush (1992)	Entrepreneurship Theory and Practice	Research over the decade has shown some similarities and some differences between male and female business owners. Similarities have been reported on demographic features, some psychological traits and business skillset. Differences have been reported on educational background, occupation, motivation to start a business and approach to business creation and growth.	Proposed an integrated perspective, rooted in psychological and sociological theories, to explain gender-based differences
5	Fischer et al. (1993)	Journal of Business Venturing	There are theoretical speculations on the differences between male and female entrepreneurs. Found no strong evidence for women-owned firms being impeded by the female owners' lack of education or experience. Further, access to apprenticeship in target industry for women entrepreneurs can be beneficial.	Liberal feminist theory and social feminist theory can help explain why men and women run their businesses in different yet equally effective ways
6	Baker et al. (1997)	Entrepreneurship and Regional Development	Report a paradox- even though women business ownership has grown substantially in the US, the leading press and academic journals have remained silent. Small but significant gender differences in social behavior and leadership studies can offer interesting insights on gendered differences in business	Social behavior theory

S. No.	Author (Year)	Journal	Key Findings	Theory
			ownership.	
7	Mirchandani (1999)	Gender, Work and Organization	Research on women entrepreneurship can be advanced via reflections two concerns: (i) construction of the 'female entrepreneur' category that lays greater emphasis on gender over other types of stratification; (ii) examine relationships between gender, occupation and organizational structure and their impact on female versus male entrepreneurs.	Feminist theory
8	Gundry et al. (2002)	Journal of Enterprising Culture	Suggests the need to study comparisons among sectors; examine impact of factors like industry, family, culture and goal orientation in women founded enterprises; and study women entrepreneurship in the context of developing countries.	
9	Ahl (2006)	Entrepreneurship Theory and Practice	Need to expand the research object and move from an individualist focus of examining the female entrepreneur to include more factors and studies, like contingency studies or comparative studies. There is also a need to make a shift in epistemological position from how gender is done to how social orders are gendered.	Feminist theories - Liberal Feminist theory, Social Feminist theory, Psychoanalytical Feminist theory, Radical Feminist theory, Social Constructionist and Post-structural Feminist theory
10	de Bruin et al. (2006)	Entrepreneurship Theory and Practice	Research on women entrepreneurship is still at an early childhood stage and there is a need to pursue research that is connected to theory. There is also a need to nurture professional academic communities in this area like the	

S. No.	Author (Year)	Journal	Key Findings	Theory
			Diana International Project to advance the field.	
11	de Bruin et al. (2007)	Entrepreneurship Theory and Practice	Existing theoretical concepts need to be expanded to better explain the uniqueness of women entrepreneurship. Research on multiple levels involving multiple units of analysis is required to advance the field.	Propose use of Feminist theories to expand Entrepreneurial theories on Process, Opportunity Recognition, Opportunity Exploitation, Value Creation, Entrepreneurial Environment and Institutional theory
12	Brush et al. (2009)	International Journal of Gender and Entrepreneurship	Propose a gender-aware framework for a holistic understanding of women entrepreneurship. Founded on institutional theory, they build a framework around 3Ms (markets, money and management) and add two more variables (motherhood and meso/macro environment) to construct a 5 M framework.	Institutional theory. Propose Gender as a Social construct theory
13	Ahl and Nelson (2010)	International Journal of Gender and Entrepreneurship	Re-frame the perspective on gender (differing from biological sex) in entrepreneurship research. Use the word gender as a socially constructed phenomenon. Focus on understanding the distinguishing process of "doing entrepreneurship" in terms of "what women do" and "what men do".	Use Institutional theory to examine Gender and Entrepreneurship
14	Sullivan and Meek (2012)	Journal of Managerial Psychology	Extend the research examining relationships between I/O psychology and entrepreneurship studies.	Expectancy theory, Regulatory Focus theory, Social

S. No.	Author (Year)	Journal	Key Findings	Theory
			Present the review as a process model of gender and entrepreneurship.	Cognitive theory to study process model concepts (Entrepreneurial Opportunity recognition, Motivation, Resource Acquisition, Success /Performance)
15	Ahl and Marlow (2012)	Organization	There exists an occluded gender bias within the entrepreneurial discourse, which is contrary to the neo-liberal views on entrepreneurship. Gendered assumptions limit epistemological scope of research in this area and positions women entrepreneurs as either failed or reluctant subjects. There is a need for building a reflexive critical perspective.	Feminist theories
16	Hughes et al. (2012)	Entrepreneurship Theory and Practice	Women entrepreneurship research is on the brink of adolescence. Need to be inclusive of diverse voices and apply a constructionist approach to answer traditional and non-traditional questions. Research collaborations in the women entrepreneurship area are still restricted within national boundaries and future research needs building networks across transnational borders.	
17	Jennings and Brush (2013)	The Academy of Management Annals	A comprehensive review of the sub-field documenting in detail evolution of research work on women entrepreneurship over a period of 30 years. Use the lens of informed pluralism and report entrepreneurship is a gendered	Feminist theory, Process theory, Motivation and goals



S. No.	Author (Year)	Journal	Key Findings	Theory
			phenomenon, entrepreneurial activity is embedded in families, entrepreneurship can result from necessity as well as opportunity and entrepreneurs pursue goals beyond economic gains.	
18	Goyal and Yadav (2014)	Psycho sociological Issues in Human Resource Management	Review challenges faced by women entrepreneurs in developing countries. Developing countries have institutional voids and low levels of entrepreneurial education. Women struggle to gain access to finance, face socio-cultural biases and experience low self-esteem. There is a need to address these complex challenges in a comprehensive manner to assist research and policy on women entrepreneurs in developing nations.	
19	Henry et al. (2016)	International Small Business Journal	Review the literature published on gender and entrepreneurship over a period of 30-years in 18 journals. There are large-scale empirical studies that primarily focus on comparisons between male and female entrepreneurs and often less information is given on the industry sector or the sampling methods. There is paucity of feminist critique and future scholars need to engage with post-structural feminist approaches. There is a need to adopt innovative methods like in-depth qualitative approaches.	Post-structural feminist theory



## **OBJECTIVES**

The study revolves around the women section of the society, with the aim of enquiring about the motivation, support and other assistance factors provided to them by the family and society as well. Furthermore, it is also aimed at enquiring about the assistances and assurance from the Government, other NGOs and women for the flourishing of the society.

## **STATUS OF WOMEN ENTREPRENEURS IN INDIA**

Due to increase in awareness about education level, rapid growth in industrialisation, changed Indian society, women have stepped out from their domestic boundaries with vision of becoming job-making entrepreneurs. Many women turn into entrepreneurs due to atrocious situations, discriminations, layoff, etc. And a few women have developed the entrepreneurial individuality by consistently persuing opportunistic and holistic attitude. In 21<sup>st</sup> century, women entrepreneurship has been invariably unfolding the variety of sectors by conquering all the challenges and opportunities. Women entered the business sector by promoting industries of Agarbathi manufacturing, Papad, Pickles, Embroidery, Handicrafts etc. Due to easy access to professional education, urbanisation and required resources, women entrepreneurs are now omnipresent. They are flourishing in engineering, fashion Designing, Banking, Electronics, Cosmetics sectors, etc.

## **ROLE OF GOVERNMENT IN DEVELOPING WOMEN ENTREPRENEURSHIP**

By shattering the glass ceilings women made their way in the field of innovation i.e. entrepreneurship. The elimination of the obstacles of strict social constraint, limited time skills and lack of capital were observed among Indian women entrepreneurs. Government of India found Women

Entrepreneurship as a considerable source of economic development of country. Government of India recognised the need for contributing towards development of Women Entrepreneurship which is contributing 22 percent of GDP, where worldwide average is 45 percent. The various initiatives taken by government to promote Women Entrepreneurship are: Bhartiya Mahila Bank( Finance for underprivileged women), Annapurna Scheme ( Financial leg up for food catering business), Stree Shakti (Entrepreneurship development programmes), Orient Mahila Vikas Scheme (Providing capital for starting small businesses), Udyogini Scheme ( Providing low interest rate loan) and Mahila Udyam Nidhi Scheme ( Loans for small sectors new projects).

The role of Government is confined only up to proving assistance, assurance, reliefs, encouragement and ways of operation. The future utilisation and operation of these factors is ultimately in the hands of women only. Thus women step out and join hands with other women of the society and establish themselves as a sole. This gives rise to "Women Empowerment."

## **WOMEN EMPOWERMENT**

Empowering women in today's competitive era is not only limited to building up the female section of the society, but also the blooming of political, economical and social strength of the country. Awareness among Indian women about their existence uniquely identity, capabilities and role they could play towards the growth (GDP) and development (increase in per capita income) of country. Women have much more to serve if they are free from being the example of female infanticide, rapes, family responsibility, lack of education, gender discrimination, dowry, etc. Inferiority complexes, sense of incapacibilities are reaped into the minds of women from their childhood.

Empowering women by imparting personality development attitude from childhood will allow women to gradually evolve with entrepreneurial skills set like decision making power, freedom of movement, innovation, etc. Women with innovative ideas are required to break the conventional and Orthodox hindrances. Women like Vandana Luthra, initially a homemaker and now “Padam Shri” for her contribution to women entrepreneurship by successfully running VLCC, a beauty and wellness gaint. Ekta Kapoor, who changed the monotonous Indian television into alluring entertainment source. Out of many a few Intrapreneurs are “Padam Shri” Naina Lal Kidwai, (CEO, HSBC), Indra Nooyi (CEO and President Pepsico), etc. are the example of women entrepreneurs and intrapreneurs of India.

In India, women sometimes considered as goddess and other times as a slave. This paradoxical situations are still prevailing in the society which can be eradicate by changing societal mindsets, encouraging women to see dreams and motivating to accomplish those dreams, promoting self help groups, etc.

## METHODOLOGY

**The Study:** The research data is sourced from Indore, India, as an interview outlook and hence the research is a qualitative research. The research is completely focused on understanding the various factors and aspects of women as an Entrepreneur.

**Tools for Data Collection:** The source of data collection is primary in nature and the Interview has been taken as a tool to collect the data. The respondent was the Founder of the NGO, Dr. Divya Gupta.

**Tools for Data Analysis:** Based upon the data collected from the sole Interviewee of the study, Dr. Divya Gupta, it can be interpreted that Women as entrepreneur are considered as a special case even though lakhs of

women who are well qualified, competent and capable of becoming entrepreneurs. In spite of this, very few women entrepreneurs present in India. The main barriers are: Role of motherhood and family responsibility; Socio-cultural and traditional values; Inability to cope up with tension and pressure of entrepreneurship and Family restrictions.

## CASE STUDY

“When women support each other, incredible things happen.” The case study reflects the practical region of this phrase. The case communicates the study of a NGO named as “J for Jwala” or simply “Jwala Mahila Samiti” whose foundation has been laid by a renowned Gynaecologist, Dr. Divya Gupta, from Indore in the year 2012. The sole motive of Dr. Divya Gupta behind the foundation of this organisation was to provide women the knowledge of self-dependence, self-reliance, personal awareness, security, standing against the violence, direct towards their areas of interest and works, most importantly towards the Empowerment.

**Origin:** “Jwala was born out of anger. Jwala Mahila Samiti is a non-political, non-profit, self-funding, social organisation who came together to join hands for the course of women” says Dr. Divya Gupta. Jwala Mahila Samiti was founded as a reaction to the Nirbhaya Case of Delhi and the Assam Rape Case as a movement in the year 2012, which aimed at providing empowerment, education, defence training and many such services. Thus, Jwala is a perfect example combined for “Women entrepreneurship and Women empowerment”.

**Programmes at Jwala:** Jwala is a multi skilled organisation which focuses on women empowerment and has its various programmes running with the most effectiveness towards making the women fearless and competent. “Rakshaam”

program provides women and girls the training regarding the methods, techniques of self defence. "Mai Rakshak" denotes the program held for the men and boys section of the society to upsurge above the evil and malignancy from them and to develop and understand their responsibility towards women, thus by ensuring the gender equality.

"Recycle Project" is another program at Jwala that is aimed at preparation of useful yet creative items from the old clothes and newspapers and sell them at considerable prices. The remuneration thus procured is kept only by the working women there and not by any other person. This remuneration thus assists these working women in running their homes. "100% Biodegradable Sanitary Napkins" is the most special function of Jwala which provides completely biodegradable sanitary napkins at a considerable price. These napkins are again an output of working women only and through this program, Jwala works toward maintenance of health, servicing women by providing napkins at reasonable price, and makes women self dependent by providing remuneration and what not.

Also, it provides workshops of these programmes to many. More than 85,000 girls have been trained by the organisation under these programmes. There have been many press releases, awards and certifications to the organisation for their outstanding performance and dedication.

**Observation from the Study:** It takes humongous dedication and strength to take up such organisation, work for social welfare, and empower the women section without the motive of making money only. It is very courageous to provide the same to specially-able girls also. It reflects the truth that over the past few years, the women section of the society is on a highly raising level. And thus, kudos to all those women who help, motivate and emancipate other

women to grow, think out of the box and step ahead.

### **LIMITATIONS OF THE STUDY**

Although the research contributes to the area of its subject to a good extent, there is still a need for a long-run and vast study. This research is based on a sole study; hence the further research should legitimize this study with a broader perspective.

### **CONCLUSION**

With this Case Analysis, one can conclude that, entrepreneurship is the process of setting up an innovative business with motive of problem solving and filling the potential gaps of the society. Thought-provoking thinker can be a man or woman. So entrepreneurship is free from gender biasness. Women as an entrepreneur face the problem of different dimension and magnitudes. These problems don't allow many women to realize and represent their potential as an entrepreneur. Some major limitations for women becoming potential entrepreneur are: Access to capital, Access to information, Access to network, Efforts to balance work and family, Exporting their product overseas, Increase volume of production because of poor finance, The hassle of getting permits, Male dominant society i.e. not being taken as serious as man, Lack of financial confidence, Lack of exposure to the world of business, Socio cultural constraints, Weak business association, Unequal access to opportunities, The willingness to take risk, Women's inexperience of negotiating with the banks, Lack of technical skills and what not.

Over the past three to four decades i.e. from 1989 to 2019 various changes, up gradation, improvement are visible in India which gave capable women entrepreneurs like Shahnaz Hussain, Richa Kar, Ashwini Asokan etc. and women intrapreneurs like Neelam Dhawan, Indu Jain, etc. But above limitations restricts all those women in India who have an idea

## for betterments in India but are not in the list of women Entrepreneurs of India.

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