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AN APPRAISAL OF PROMINENT GREEN MARKETING COMMUNICATION THEMES AS PART OF GREEN MARKETING STRATEGIES

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ABSTRACT

The present research is an attempt to understand the role of “green” in the context of green marketing communications that can influence the green buying decisions of people. The existing research in this area has been examined to identify the major thrust areas that the firms adhering to green marketing strategies are emphasizing to influence their customers. An investigative framework comprising of prime theme of advertisements of such firms is created that identifies and classifies various stakeholders, potentially impacted through the environmentally friendly effort of a firm. It was observed that the customers that are sensitised to the green buying in the area of Prayagraj, do notice the message of the advertisement and carry difference in opinions on the impact of such green marketing communications but the reflection in their buying preferences are not consistent with their opinions.

Keywords: Green Marketing, Marketing Communications, Green Buying Behaviour.

INTRODUCTIONS

The deterioration of the environment and the ecosystem in the modern era can be hugely attributed to the growth of the global economy. The indiscriminate consumption and overutilization of natural resources has deteriorated the delicate equilibrium of our environment which has led to several undesirable consequences for us alike. For instance, the greenhouse effect induced by humans by burning fossil fuels has posed a great health hazard around the world (Krause, 1993; Easterling et al., 1996) and humans are now getting more and more concerned about the environment like never before.

The consumers are getting increasingly worried about the impact of their demands and consumption on the environment. An exemplar swing in the awareness and attitude of consumers towards the greenness has put the pressure back on the businesses to embrace more sustainable and green practices (Singh, 2013), (Dzung et al., 2013). It has been observed that a sizeable number of customers actually like to avoid the

produce from those companies that pollute the environment. The shareholders, employees, partners and governments (regulations) have also prompted the companies towards adopting greener means.

What started as compulsions and pressures initially has soon become the positioning strategy for many firms. Management of the business houses was internally motivated to adopt the manufacturing process and products that were environmentally sustainable and compatible and projected themselves as the champions for the cause (Sachdev & Mahna, 2014). Especially in India, larger corporates like Suzlon, Tata, Amul, ITC, Hero Honda, Wipro, Infosys, Dabur India, HUL, Maruthi, Godrej, BSA, LG Electronics and many more corporates now realize that they have to capture going green new market. They deliver environmentally friend products that are superior in some way to their conventional counterparts. They have analyzed the unique segment of people who were conscious of their environment and started targeting them with their greener strategies and products.

To qualify as a green product, a product or service has to be environment-friendly in itself or produced and/or packaged in an environmentally-friendly way (Singh, 2013). The marketing efforts associated with such product and process can be summed up as green marketing process. According to Shamdasami et al., (1993), the green product will not pollute the earth, or deplore scarce resources; they will be recycled or conserved. "Eco-friendly" refers to any product or service that is not harmful to the atmosphere or surroundings.

Barring a few cases, like Recron India Pvt Ltd. (a company that produces products from recycled

plastic waste and claims that their produce, a synthetic yarn is not only qualitatively better than its competitors but also gives them a cost advantage), it is often believed that subscribing to a green marketing effort or adopting such strategies is a critical financial decision for a firm. In many cases operational cost increases which need to be covered up by the willingness of the customers to pay. Therefore the marketer needs to heavily bank upon the market research to understand what factors would govern the awareness, attitude and the willingness of customers to pay for greener products and to what extent they would stretch to pay more so that they may design their marketing efforts effectively. This study will primarily explore the extent to which marketing communication can fetch the attention of a customer and elicit a favourable buying behaviour.

LITERATURE REVIEW

Though, the American Marketing Association (AMA) held its first Workshop on Ecological Marketing as early as in 1975 but the tangible milestone that appeared for the first time in the subject were in the form of two books on Green Marketing, the first by Ken Peattie (1992) and the other one by Jacquelyn Ottman (1993). Following the work of these authors, many papers frequently started coming up in several journals. Researchers have contributed to the literature on different aspects of the green marketing. Some were focused on the Consumers preferences and behaviour while others were on devising appropriate green marketing strategies.

Roome & Hinnells (2007) provided a study that companies are required to provide the extensive

details to prove its existence and the merits of green products which are to be consumed by the buyers with various methods and tools as well for combined marketing conversation because the concept and information of the advertisement of the product differs from usual advertisement. Marketing of green products with adaptation of novel and innovative ways to maintain and long standing the existence of the companies is significant from the viewpoint of sustaining the development. Ascending concern towards the down fall of environment has been exhibited by the companies and this caused product development management to remain attentive and focused towards it. The high concern for the environment left an effective impression on the corporate guild.

Chamorro & Benegil (2006) went across the perusal about the firms in Spain to distinguish whether the firms have truly committed towards the protection of environment and comprehended the green marketing to be an activity or philosophy. Another study in its sequence was also carried out whether Eco-labels are utilized only as tools to target the sales to the consumers or real environmental firm is in still use. They lastly found that the firms were right in their commitment. This renders help to the consumers to inculcate a good faith and will for the firms involved in ecolabeling for promotion of the green products.

Baynte et al. (2010) processed an investigation on the profile of consumer of green eco friendly food products in the market of Lithuania and this showed environmental issues being practiced by more educated consumers along with paying more for the eco friendly products. Government and industry are putting efforts for the protection of the environment.

Implementation of Environment Protection Act in India was ensued in 1986 and it was audited in 1992. Capital of India, New Delhi was declared to be the most polluted place before the intervention of Supreme court in this direction to emphasize on using alternative fuel such as CNG in all public transport system to bring fall in pollution in 2002. Interesting area in green consumer behaviour came in light as post purchase behaviour in disposing of the product. A recycle program of the green initiatives to dispose off the waste electronic items such as phones was launched by Nokia with a view of protection of environment. True value car market concept was started first by Maruti car manufacturer and then onwards, the same concept was followed by other manufacturers. Welling and Chavan (2010) reported a survey in which Air Jordan shoes were launched first time under the theme of green marketing by Nike being one of the most popular shoe companies claiming the reduction of the use of harmful glue adhesive.

Production of Green IT products by Dell was focused under the policy of "Go Green with Dell" and Eco friendly packaging inclusive of a system recycling kit. Dell also drove its attention on green innovations from data centre efficiency to the eco-friendly material usage for every part from the design to the packaging of the product. Porter and Linde (1995) put forth a claim for the profitability to be fetched by usage of the green products and policy. Green organizations can be assisted to enjoy the benefits of being first mover in green marketing sector. Green marketing can be expected to be fruitful from the distant vision point of view. A premium for green products affecting the sales of company seems very difficult to be paid. In such a situation,

the company may ponder over to leave aside the green marketing concept or opt to follow an unfair practice to cut short the cost so as to stand in competition and the whole idea of going green is diminished. Co-operation and belief to be infused in stakeholders by convincing the practice of green marketing by firms as it seems difficult task since awareness falls short in the way of achieving it. Environmental responsibility as part and parcel of quality attributes of products of the firm must be the priority to be emphasized.

Polonsky et al. (1998) put forth about consideration of utilization of misleading environmental marketing claims as one of the big issues for consumers, policy makers and academics too. Australian market was put under study for carrying out analysis of the contents to extract the environmental information printed on the product packaging of dishwashing liquid made available on the grocery stores. Evaluation criteria for identification of the extent to which information may be considered to be misleading were founded. The analysis disclosed the majority of information to have been inaccurate. Hussain (2000) proposed the green marketing to charter the consumer pattern and their likings so as to target the product offering for the consumers signalling their environmental issues for buying green products. Advertisements found lack of proper communication may result in the marketing campaign to be misleading and resulting in green washing ultimately.

Sammer & Wustenhagen (2006) surveyed and placed their views that the marketers communicate the information through the eco-label to the consumers. In the process, the eco-label imbibes a significant value for marketing. Hartmann & Apaolaza (2008) strived for

distinguishing the dependence of environmental advertisement with the impact on consumer purchasing behaviour and they extracted the information that nature of green advertisement and its components driving the emotions of consumers lead to the green consumption.

Nik Abdul Rashid (2009) obtained a strong dependence between eco label and its effect on purchase decisions of consumers. The customers are not in condition to pay the premium due to higher cost of the green products and marketing promotions to accept the product by the consumers are required to be invested with large amounts of money. Pro-environment actions performed by the consumers towards green purchasing have grown a little more due to the level of awareness about the green product as an indispensable factor as the perusal and review of the literature revealed by Davidson et al., (1985). Peattie K (1992), Ottman J. (1992 a) and Ottman J. (1992 b)) came to conclusion about the consumer intention toward green product demand and pre-occupied concept to be uneven. Balderjahn (1988) persecuted a perusal and demonstrated the behaviour of purchasing green products to have been random owing to the distinct factors present in culture, traditions, rituals and demography. The demographic, socioeconomic, cultural, personality and attitudinal variables were used to estimate five distinguished patterns. It was also exhibited that the higher class of societal status consumers possess an attitude of protection of the environment and consuming the green products. Hassan & Valenzuela (2016) placed a study about the intentions of consumers to purchase green products to get low affected by the advertisements and the consumers think the green products to be modern day hype

and attention toward it not to be essential. The advertisement of awareness of co green products could generate a little faith since the consumers were detected to be sceptic toward the advertisement not being done so as to grow required level of trust and the advertisements claiming the green consumption to be healthy were assumed to be fabricated and falsified. The consequence of the tool was less effective toward green product purchase.

RESEARCH METHODOLOGY

This is an empirical study comprising of factor that are the principal focus area of any green marketing communication. These principal focus areas were arrived at by thorough literature review. Once these components of an advertisement campaign is decided, the first step is to analyse the nature of interrelationships or existence of underlying dimensions, if any, among these components of advertisement campaign. These components would be analysed from the perspective of respondents who have been subscribers of green products and carry some sensitisation towards the green marketing practices. A purposive or Judgmental sampling method will be adopted to fulfil the basic assumption that the respondents are subscribers of green product. A sample size of ten to fifteen times the observable variables in the components of the advertisement would be chosen so as to sufficiently cover up the requirements of factor analysis.

The Principal exploratory factor analysis with varimax rotation tool would then be employed to assess the interrelationships or existence of underlying dimensions in the components of advertisements of green products and to extract principal factors out of observable constructs

employed in the questionnaire to suggest a model comprising of latent variables (extracted factors) and the outcome variables.

The factor scores of factors with Eigen values greater than 1, out of all the extracted factors would then be employed to study the difference in group means of various categorical variables depicting the associated consumer behaviour. The factor scores will then be treated as a continuous variable (Sharma, 1996) as executed in (Pathak, 2019). Following factor analysis the respondents will be classified into groups using hierarchical cluster analysis. These groups will then form a basis to study the behaviour of the people on different aspects of green purchase. Some other non parametric statistical tools will also be employed to study the interrelationships among categorical and ordinal variables.

DATA ANALYSIS

A questionnaire was served on 159 participants and responses were collated from all of them. Some of the responses were incomplete, whereas some of the respondents were found not using green products therefore their responses were excluded from the analysis. In all a total of 51 fully filled qualified responses were received. The five different perspectives that have been used by various manufacturers of green products to communicate with their customers are depicted here as Adv_Green_Themes, Adv_Health, Adv_Product_Label, Adv_Edu_Message and Adv_Negative. These variables were used in the factor analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.85; Bartlett's Test of Sphericity was also significant, indicating that the sample size was good enough to proceed with the factor analysis.

Table 1: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.611	72.214	72.214	3.611	72.214	72.214
2	.671	13.417	85.631			
3	.334	6.688	92.320			
4	.242	4.843	97.163			
5	.142	2.837	100.000			

Extraction Method: Principal Component Analysis.

Table 2: Component Matrix^a

	Component 1
Adv_Green_Themes	.892
Adv_Health	.919
Adv_Product_Label	.871
Adv_Edu_Message	.892
Adv_Negative	.646

Extraction Method: Principal Component Analysis.

The Factor analysis revealed only one latent dimension of green marketing communication on which all the five observable variables were highly correlated. The extracted principal factor was able to explain 72% variation in the respondent's data. Since all the above five variable sound similar to the respondents and there exist no different dimension to it, all can be collectively summed as a green marketing advertisement.

The factor scores so produced were then employed in k-means hierarchical cluster analysis which yielded only two clusters. 18 cases of respondents were classified in group1 and rest 33 cases were relegated to group2.

Table 3: Final Cluster Centres

REGR factor score 1 for analysis 1	Cluster	
	1	2
	-1.17084	.63864

Table 4: Number of Cases in each Cluster

Cluster	1	18.000
	2	33.000
Valid Missing		51.000
		.000

If more than one factor was available to classify cases then we would have looked into internal weightings or impact of different factors in different groups but, here only one factor was used to classify people it can not reveal much as to which sub-factor was prominent in which group's identification.

To demarcate the differences among group1 and group2 a comparison with the demographics was done, this would help identify the composition of these groups and understand how people with different demographic profile are influenced by the derived principal factor.

The first comparison was done with the gender to see if there was an gender differences:

- **Hnull- GroupMembership_Gender:** There is no association between the Group membership and Gender of the respondents.
- **Halternate- GroupMembership_Gender:** There is a significant association between the Group membership and Gender of the respondents.

Table 5: Cluster Number of Case * Gender Cross-tabulation (Chi-Square Test)

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.375 ^a	2	.305
Likelihood Ratio	2.646	2	.266
N of Valid Cases	51		

2 cells (33.3%) have expected count less than 5. The minimum expected count is .35.

The chi-square value for cluster number of case and gender Cross-tabulation was not significant at (p-value=0.30). The Pearson chi-square test allows us to test the independence of two categorical variables since the p-value is greater than 0.05, the null hypothesis cannot be rejected, i.e, both the variable are independent of each other. Each group has significant mix of both genders.

The second comparison was done on the age parameter to see if age of the respondents has got to do something with the advertisement message themes i.e if there was any association with the age of the respondent and their group membership.

- **Hnull- GroupMembership_Age:** There is no association between the Group membership and Age of the respondents.
- **Halternate- GroupMembership_Age:** There is a significant association between the Group membership and Age of the respondents.

Table 6: Cluster Number of Case * Age Cross-tabulation (Chi-Square Test)

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.935	2	.412
Likelihood Ratio	3.047	2	.353
N of Valid Cases	51		

2 cells (33.3%) have expected count less than 5. The minimum expected count is .35.

The chi-square value for Cluster number of case and Age cross-tabulation also revealed a non significant p-value (p-value=0.41). Therefore the null hypothesis cannot be rejected, i.e, both the variable are independent of each other.

The above two analysis reveals that the selected demographic variables do not have any significant association with the group membership based on the extracted principal factor from advertising messages themes.

The next obvious and logical step in this study is to check if the extracted principal factor was able to carve out groups of utility to green marketers that can show some differentiation in the consumer behaviour.

The variables namely, Sense of satisfaction in purchasing green products and the Willingness to pay extra for greener products were put to non parametric kruskal wallis test (being ordinal variables) to check in the group members differs in their behaviors. The null hypothesis of the kruskal wallis test is that the mean ranks of the groups are the same or that the samples/groups are from identical populations.

- **Hnull:** The samples (groups) are from identical populations.
- **Halternate:** At least one of the samples (groups) comes from a different population than the others.

Table 7: Sense of satisfaction

	Observed N	Expected N	Residual
-2	5	12.5	-7.5
-1	5	12.5	-7.5
1	32	12.5	19.5
2	8	12.5	-4.5
Total	50		

Table 8: Test Statistics-1

	Cluster Number of Case	sense of satisfaction
Chi-Square	4.083a	41.040b
Df	1	3
Asymp. Sig	.043	.000

a. 0 cells (.0%) have expected frequencies less than 5.

Table 9: Agree to pay extra price

	Observed N	Expected N	Residual
-1	4	16.7	-12.7
0	8	16.7	-8.7
1	38	16.7	21.3
Total	50		

Table 10: Test Statistics

	Cluster Number of Case	Agree to pay extra price
Chi-Square	4.083a	41.440b
Df	1	2
Asymp. Sig	.043	.000

a. 0 cells (.0%) have expected frequencies less than 5.

In both cases the p-values are less than 0.05 therefore the null hypothesis cannot be rejected. This means the groups that are created by factor scores or the combination of five sub variables Adv_Green_Themes, Adv_Health, Adv_Product_Label, Adv_Edu_Message and Adv_Negative have a similar response on the behaviour aspects.

CONCLUSION

For a conscious and aware customer of green marketing, the different perspectives that have been used by various manufacturers of green products to communicate with their customers are perceived as similar stimuli without any underlying dimensions. These communication messages do not have any explicit association with demographic variables, i.e, the people from different demographic profile cannot be differentiated on their responses to different communication themes used by green marketers. Also when the group membership was pitched against the two variables namely the Sense of satisfaction in using a green product and the Willingness to pay more for the green product it was observed the group members do not differ significantly in their responses.

This does not necessarily mean that the green advertisement messages on the said themes are ineffective. The green messages are effective as they are able to classify the respondents into two distinct groups or clusters. But the reason as to why the respondents in different groups have similar choices could well be traced in their level of education and awareness about the potential dangers of environmental degradation in unsustainable marketing practices. It must be kept in mind that all the respondents were at least pursuing graduation or have higher qualifications and that they are already consuming green products. A further study is required to check how the groups behave on other aspects of buying behaviour pertaining to green product's consumption.

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A STUDY ON IMPACT OF NURSING STAFF TURNOVER ON HOSPITAL EFFICIENCY AT A TRUST-BASED HOSPITAL, VADODARA

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ABSTRACT

Very limited studies of nurse turnover have been conducted in spite of rising rates of turnover, especially in private and trust-based hospitals. The object of this the study is to conduct an empirical study of the causes and consequences of nursing turnover in a trust-based hospital. In this study, essential information (Primary data) was gathered to search the exact reasons behind turnover and its subsequent outcome; notwithstanding that the researcher also accumulated secondary data to ascertain the precise causes of turnover. To investigate the causes and its subsequent results of nurse turnover, all hypotheses are tested by the statistical (kruskal Wallis test) process. Nurse, Turnover, Workload, Job-Satisfaction, Conflict, Workflow, Increased-Cost, Stress and Patient- Flow:

INTRODUCTIONS

Productivity is basic for the business and manager. There are numerous infinitive factors on which productiveness is the noteworthy element of the organization. Worker turnover is one extremely essential factor out of them. Workers turnover is the procedure where the representative leaves an organization or transferred inside a similar organization. It's far one of the maximum critical troubles for the corporations. Impolite behavior, work existence imbalance, feeling undervalued, alternate in the generation, multiplied call for, and plenty of others are numerous reasons for worker turnover. There are many reasons for a turnover that has been observed such as turnover itself is one of the important reasons for turnover. Many a time it is very difficult for the management to fill the vacant post in a short spell of time.

So, when any nurse leaves the organization then other nurses have to take the workload of the outgoing nurses, which may be one of the significant reasons of nurses for leaving the organization. Sometimes deficiencies of role clarity and stumpy sense of control over job performance may be another reason for turnover, in that situation; it is necessary to ensure proper exchanging of the work expectation between management and nurse. Proper recognition and rewarding workers from management's side have established a vital process in any workplace nowadays. Therefore, it is necessary to recognize and reward the workers for increasing intrinsic motivation as well as better-quality performance. But nurses are not properly recognized and rewarded in spite of their hard work in the workplace; it may also be the cause of high turnover. There are many kinds of turnover such as functional and dysfunctional turnover (Many a time good performer leaves the organization named dysfunctional turnover but on other hand leaving the organization by the poor performer is called functional turnover). Voluntary and involuntary turnover (if the choice of turnover happens because of a nurse's own intention is called voluntary turnover but without any choice or intention is called involuntary turnover is one in which employees have no option in their termination (sickness, death). External and internal turnover: (Here transfer of an employee within the organization but in a different department is called internal turnover but on the other hand if an employee leaves the organization and goes to another organization is called an external turnover). Skilled and unskilled turnover (In many organizations unskilled and untrained workers leave due to

frustration but in many times skilled workers also leave the organization due to better opportunity, in that situation, it is considered to be the loss of organization.¹ Demand for nurses is growing nowadays and collages for nursing are less as compared to the demand of nurses. Turnover of nurses is a gigantic issue for all the hospitals. There are many reasons that have been identified after different research conducted by various experts in a different part of the world Excessive nurse turnover is a major global crisis that persisting in unfavorable impacts on the healthcare system in many countries. Turnover rates of nurses vary in different countries such as 15% in Australia, 20% in Canada, and 27% in the United States. The cost of the replacement cost of each 'lost' nurse has been calculated at US\$48,790 in Australia, \$26,652 in Canada, and \$20,561 in the United States. It has been observed that the turnover rates are maximum of new graduates and newly hired nurses.²

OBJECTIVE OF THE STUDY

- 1) To analyze the impact of nursing staff turnover on hospital efficiency.
- 2) To give suggestions to reduce turnover of nurses.

REVIEW OF THE LITERATURE

A study was conducted by J. Bowalis (2016) to assess the cause and effect of nurse turnover in two areas, first is mortality and 2nd is the quality of nursing services. Finally, at the conclusion, it is found that the effect of turnover not only reduces the quality of service but also possibilities of rising mortality rate³. In the year 2016, K. Rondeau, T. Wagar (2016) conduct a study

with an objective to explore the relationship between human resource management practices and voluntary turnover of registered nurses and created three valuable HRM systems to reduce turnover⁴. The significant descriptive research study of D. Rajan (2013) with the object of examining the impact of turnover of nurses on organization performance where he proposed suitable submission to control and prevent turnover of nurses⁵. D. Thompson, B. Chang, J. Marsteller (2013) in their research work carried out a longitudinal study, in which he had sampled 45 ICU's from 35 hospitals with an object to measure the consequences of nursing care hours per patient day, nursing skill mix, and nurse turnover on centerline-associated bloodstream infection (CLABSI) rates⁶. In 2011 J. Khaliq, M. Rashid, Muhammad Zia-ur-Rehman (2011) conducted a study with an object to research the HR procedures in nursing sector Pakistan's. The outcome of the study says there are many phases that led to dissatisfaction, which could be reduced by identifying turnover and frustrations, enhancing internal empowerment and decreasing external stress⁷. Jeffrey A., Joan R., Beverly A. (1991) conducted research in 407 hospitals to test challenging arguments that the turnover of hospitals are positively linked with organizational inefficiency turnover rates are positively associated with organizational inefficiency but finally, it is found that the turnover of nurses are positively associated with operating and employees' costs per adjusted admission⁸. Shamsuzzoha and Shumon H. (2008) in their study found that there are reasons for turnover such as job security, job dissatisfaction, better job option, less increment, and working time⁹. Halter M., Boiko O., Pelone F., et al (2017) in their systematic review research

that there are multiple determinants of turnover such as nurse's stress and dissatisfaction at the individual level and in the organizational level, managerial style, and supervisory support factors are also significant factors for turnover¹⁰. In 2018 Kaddourah B., Amani K. and Mohamad Al-Tannir (2018) did research in a tertiary hospital of Riyadh on Quality of nursing work life and turnover intention. After sampling 364 nurses it is found that good quality of nursing work life decreases turnover¹¹. life decreases turnover¹¹.

HYPOTHESIS OF THE STUDY

Ho1: There is no significant relationship between nursing staff turnover and extra workload on remaining nurse.

Ho2: There is no significant relationship between nursing staff turnover and poor job satisfaction on remaining staff.

Ho3: There is no significant relationship between nursing staff turnover and high stress amongst remaining nurses.

Ho4: There is no significant relationship between nursing staff turnover and more leaves amongst remaining nurses.

Ho5: There is no significant relationship between nursing staff turnover and sickness amongst remaining nurses.

Ho6: There is no significant relationship between nursing staff turnover and more complaints from patients.

Ho7: There is no significant relationship between nursing staff turnover and more complaints from doctors about nurses.

Ho8: There is no significant relationship between nursing staff turnover and more complaints from housekeeping staff about improper waste segregation.

Ho9: There is no significant relationship between nursing staff turnover and increased cost (recruitment cost, training cost).

Ho10: There is no significant relationship between nursing staff turnover and difficult to manage patient flow at the time of festival.

Ho11: There is no significant relationship between nursing staff turnover and delay in routine procedures.

Ho12: There is no significant relationship between nursing staff turnover and damage of equipments because of lack of knowledge of new nurses.

Ho13: There is no significant relationship between nursing staff turnover and disturbed workflow.

Ho14: There is no significant relationship between nursing staff turnover and high conflict between remaining nursing staff and administrative staff.

Ho15: There is no significant relationship between nursing staff turnover and high increased level of minor injuries.

Ho16: There is no significant relationship between nursing staff turnover and high affects reputation of hospital.

administrative staff, floor manger and nursing-in charge (nurse administrator) the researcher used proportional stratified random sample

Pilot study: The pilot study was conducted on 15 staff, HR and nurse administrative staff. The questionnaire was content validated using expert opinion and reliability was checked using Cronbach's alpha, whose value was 0.921 (very strong) and hence no changes were required in data collection tools.

Process: A cross-sectional observational study design through structured questionnaire and checklist will be used to measure the impact of nursing staff turnover.

Ultimately the observation is designed with an aim to measure the impact of nursing staff turnover on efficiency during the course of one month. With the intake of administrative staff feedback and suggestion, it helps to know whether turnover impacts the reputation of the hospital or not.

Appropriate tools for data analysis: Frequency distribution made to analyze opinion samples on 5 point likert scale Kruskal Wallis test is done to see the mean value and to test the hypothesis that there is difference in opinion of staff according to age.

RESEARCH METHODOLOGY

Research design: Type of research design: a descriptive and cross-sectional study

Data collection: Primary Sources- through the structured closed-ended questionnaire.

Statistical Tools: Data tables

Sampling: Sample will include – HR administrative staff, Floor managers, Nursing superintendent, Nursing in-charge, department in charge and OPD staff nurse in-charge (Total sample will be of 45). In all category HR

ANALYSES AND DISCUSSIONS

Frequency Table

Questions Impact of nursing staff turnover resulting.....	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Median
Extra workload on remaining nurse staff	17 (37.8%)	26 (57.8%)	-	02 (4.4%)	-	45 (100%)	2
Poor job satisfaction of remaining nurse staff	7 (15.6%)	28 (62.2%)	3 (6.7%)	5 (11.1%)	2 (4.4%)	45 (100%)	2
High stress amongst remaining nurses	8 (17.8%)	24 (53.3%)	6 (13.3%)	5 (11.1%)	2 (4.4%)	45 (100%)	2
More leaves of remaining nurse staff	1 (2.2%)	21 (46.7%)	12 (26.7%)	8 (17.8%)	3 (6.7%)	45 (100%)	2
Sickness amongst remaining nurses	1 (2.2%)	29 (64.4%)	4 (8.9%)	8 (17.8%)	3 (6.7%)	45 (100%)	2
More complaints from patients	20 (44.4%)	20 (44.4%)	2 (4.4%)	2 (4.4%)	1 (2.2%)	45 (100%)	2
More complaints from doctors about nurses	20 (44.4%)	20 (44.4%)	2 (4.4%)	2 (4.4%)	1 (2.2%)	45 (100%)	2
More complaints from housekeeping staff about improper waste segregation	-	14 (31.1%)	14 (31.1%)	15 (33.3%)	2 (4.4%)	45 (100%)	3
Increased cost	26 (57.8%)	15 (33.3%)	4 (8.9%)	-	-	45 (100%)	1
Difficult to manage patient flow at the time of festival	1 (2.2%)	12 (26.7%)	8 (17.8%)	22 (48.9%)	2 (4.4%)	45 (100%)	4
Delay in routine procedures	15 (33.3%)	21 (46.7%)	3 (6.7%)	5 (11.1%)	1 (2.2%)	45 (100%)	2

Damage of equipments because of lack of knowledge of new nurses	3 (6.7%)	20 (44.4%)	6 (13.3%)	15 (33.3%)	1 (2.2%)	45 (100%)	2
Disturbed workflow	12 (26.7%)	25 (55.6%)	4 (8.9%)	3 (6.7%)	1 (2.2%)	45 (100%)	2
High conflict between remaining staff	5 (11.1%)	21 (46.7%)	9 (20%)	9 (20%)	1 (2.2%)	45 (100%)	2
Increased level of minor injuries	2 (4.4%)	24 (53.3%)	6 (13.3%)	12 (26.7%)	1 (2.2%)	45 (100%)	2
Affects reputation of hospital	23 (51.1%)	18 (40%)	2 (4.4%)	1 (2.2%)	1 (2.2%)	45 (100%)	1

In this criterion, 37.8% of respondents are strongly agreed, 57.8% are agreed on the extra workload on remaining staff. Median is 2 indicating that 50% of the respondents have agreed for the extra workload on remaining staff due to turnover.

1. Here 15.6% are strongly agreed, 62.2% are agreed on poor job satisfaction of remaining staff. Median is 2, which is also signifying that 50% of the respondents have agreed on poor job satisfaction of remaining staff due to turnover.
2. In the category, 17.8% are strongly agreed and 53.3% are agreed for high stress amongst remaining nurses. Median is 2, indicating that 50% of respondents are agreed.
3. Here only 17.8 % are strongly agreed, 46.7% are agreed for more leaves amongst remaining staff. Median is 3, proving that more than 50% of respondents have disagreed for more leaves of remaining staff due to turnover of their staffs
4. At this point, 64.4% are strongly agreed and 24.5 are agreed for sickness amongst remaining nurses. Median is 2, indicating that 50% of the respondents have agreed for the sickness of remaining nurses
5. In this category, 88.8% are strongly agreed and

- agreed on more complaints from patients. Median is 2, indicating that 50% of the respondents have agreed for more complaints from patients.
6. Here 93.3% are strongly agreed and agreed on more complaints from doctors about nurses. Median is 2, representing that 50% of the respondents has agreed for more complaints from doctors about nurses.
7. In this category, 37.7% strongly agreed and agreed 31.1% neutral, 62.2 % are disagreed and strongly disagreed for more complaints from housekeeping staff about improper waste segregation. Median is 3 proving that more than 50% of the respondents have disagreed on more complaints from housekeeping staff about improper waste segregation.
8. Here, 91.1% of respondents are strongly agreed for the increased cost. Median is 1, so it is confirming that more than 50% of the respondents agreed for the increased cost.

9. In this study, only 28.9% are strongly agreed and agree, 53.3 % are disagreed and strongly disagreed to it difficult to manage patient flow at the time of the festival. Median is 4, signifying that more than 50% of the respondents have disagreed for difficult to manage patient flow at the time of the festival.

10. Here, 74 % are strongly agreed and agreed; only 13.3 % have disagreed for the delay in routine procedures. Median is 2, but representing that 50% of the respondents has agreed for the delay in routine procedures.

11. In this criterion, 51% are strongly agreed and agreed; only 35.7% are disagreed for damage of equipment because of a lack of knowledge of new nurses. Here also median is 2, representing that 50% of the respondents has agreed for damage of equipment because of a lack of knowledge of new nurses.

12. Here, 26.7% are strongly agreed, 55.6% are agreed, 8.9% neutral, 6.7%

disagreed and 2.2% strongly disagreed with disturbing workflow. Median is 2, indicating that 50% of the respondents have agreed for disturbing workflow.

13. In this criterion, 57.8% are strongly agreed and agreed as well and 22.2persons are disagreed and strongly disagreed for high conflict between remaining staff. Median is 2, signifying that 50% of the respondents have agreed for high conflict between remaining staff.

14. Here 58.1% are strongly agreed and agreed, 28.9 disagreed and strongly disagreed for the increased level of minor injuries. Median is 2, indicating that 50% of the respondents have agreed increased level of minor injuries.

15. Out of the total 45 administrative staff in the study, 91.1% are strongly agreed and agreed; only 4.4% disagreed and strongly disagreed. Median is 1, proving that more than 50% of the respondents have strongly agreed to effects the reputation of the hospital.

KRUSKAL WALLIS TEST (Hypothesis Testing)

H₀1: There is no significant relationship between nursing staff turnover and extra workload on remaining staff.

	Yrs of exp.	Mean rank	P value
Extra workload on remaining staff	Less than 1 year	18.09	0.378
	1-3 years	23.33	
	3-5 years	26.20	
	More than 5 years	24.89	

P value, in this case, is 0.378 which is more than 0.05 hence there is no difference in opinion for the extra workload on remaining staff according to the experience of administrative staff.

Ho 2: There is no significant relationship between nursing staff turnover and poor job satisfaction on remaining staff.

	Yrs of exp.	Mean rank	P value
Poor job satisfaction of remaining staff	Less than 1 year	22.36	0.930
	1-3 years	23.83	
	3-5 years	21.30	
	More than 5 years	24.28	

P value, in this case, is 0.930 which is more than 0.05 hence there is no difference in opinion for poor job satisfaction of remaining staff according to experience of administrative staff.

Ho 3: There is no significant relationship between nursing staff turnover and high stress amongst remaining nurses on remaining staff.

	Yrs of exp.	Mean rank	P value
High stress amongst remaining staff	Less than 1 year	22.05	0.550
	1-3 years	24.87	
	3-5 years	18.80	
	More than 5 years	25.72	

P value, in this case, is 0.550 which is more than 0.05 hence there is no the difference in opinion for High stress among remaining staff according to experience of administrative staff.

Ho 4: There is no significant relationship between nursing staff turnover and more leaves amongst remaining nurses on remaining staff.

	Yrs of exp.	Mean rank	P value
More leaves of remaining staff	Less than 1 year	24.05	0.513
	1-3 years	22.80	
	3-5 years	18.60	
	More than 5 years	26.94	

P value, in this case, is 0.550 which is more than 0.05 hence there is no the difference in opinion for High stress among remaining staff according to experience of administrative staff.

WHo 5: There is no significant relationship between nursing staff turnover and sickness amongst remaining nurses on remaining staff.

	Yrs of exp.	Mean rank	P value
More sickness amongst remaining staff	Less than 1 year	24.68	0.226
	1-3 years	23.80	
	3-5 years	16.75	
	More than 5 years	26.56	

P value, in this case, is 0.226 which is more than 0.05 hence there is no difference in opinion for more sickness amongst remaining staff.

Ho 6: There is no significant relationship between nursing staff turnover and more complaints from patients.

	Yrs of exp.	Mean rank	P value
More complaints from patients	Less than 1 year	20.77	0.754
	1-3 years	21.90	
	3-5 years	24.50	
	More than 5 years	25.89	

P value in this case is 0.754 which is more than 0.05 hence there is no difference in opinion for more complaints of patient according to experience of administrative staff.

Ho 7: There is no significant relationship between nursing staff turnover and more complaints from doctors about nurses.

	Yrs of exp.	Mean rank	P value
More complaints from doctors	Less than 1 year	19.36	0.482
	1-3 years	23.30	
	3-5 years	27.30	
	More than 5 years	22.17	

P value, in this case, is 0.482 which is more than 0.05 hence there is no difference in opinion for more complaints from doctors according to experience of administrative staff.

Ho 8: There is no significant relationship between nursing staff turnover and more complaints from housekeeping staff about improper waste segregation

	Yrs of exp.	Mean rank	P value
Complains from housekeeping staff for improper waste segregation	Less than 1 year	32.86	0.008
	1-3 years	17.90	
	3-5 years	17.30	
	More than 5 years	25.78	

P value, in this case, is 0.008 which is less than 0.05 hence there is difference in opinion for Complains from housekeeping staff for improper waste segregation according to experience of administrative staff.

Ho 9: There is no significant relationship between nursing staff turnover and increased cost (recruitment cost, training cost).

	Yrs of exp.	Mean rank	P value
Increased cost	Less than 1 year	15.36	0.023
	1-3 years	22.97	
	3-5 years	30.85	
	More than 5 years	23.67	

P value, in this case, is 0.023 which is less than 0.05 hence there is difference in opinion for increased cost according to experience of administrative staff.

Ho 10: There is no significant relationship between nursing staff turnover and difficult to manage patient flow at the time of festival.

	Yrs of exp.	Mean rank	P value
Difficult to manage patient flow at time of festival	Less than 1 year	31.14	0.011
	1-3 years	24.63	
	3-5 years	13.85	
	More than 5 years	20.50	

P value, in this case, is 0.011 which is less than 0.05 hence there is difference in opinion for difficult to manage patient flow at time of festival according to experience of administrative staff.

Ho 11: There is no significant relationship between nursing staff turnover and delay in routine procedures.

	Yrs of exp.	Mean rank	P value
Delay in routine procedure	Less than 1 year	16.00	0.047
	1-3 years	21.87	
	3-5 years	25.20	
	More than 5 years	31.00	

P value, in this case, is 0.047 which is less than 0.05 hence there is difference in opinion for delay in routine procedure according to experience of administrative staff.

Ho 12: There is no significant relationship between nursing staff turnover and damage of equipments because of lack of knowledge of new nurses.

	Yrs of exp.	Mean rank	P value
Damage of equipments because of lack of knowledge of new nurses	Less than 1 year	21.00	0.524
	1-3 years	23.93	
	3-5 years	19.80	
	More than 5 years	27.44	

P value, in this case, is 0.524 which is more than 0.05 hence there is no difference in opinion for damage of equipments because of lack of knowledge of new nurses according to experience of administrative staff.

Ho 13: There is no significant relationship between nursing staff turnover and disturbed workflow.

	Yrs of exp.	Mean rank	P value
Disturbed workflow	Less than 1 year	16.55	0.065
	1-3 years	24.43	
	3-5 years	21.30	
	More than 5 years	30.39	

P value, in this case, is 0.065 which is more than 0.05 hence there is no difference in opinion for disturbed workflow according to experience of administrative staff.

Ho 14: There is no significant relationship between nursing staff turnover and high conflict between remaining staff.

	Yrs of exp.	Mean rank	P value
High conflict between remaining staff	Less than 1 year	23.55	0.211
	1-3 years	23.93	
	3-5 years	16.40	
	More than 5 years	28.11	

P value, in this case, is 0.211 which is more than 0.05 hence there is no difference in opinion for high conflict between remaining nurses according to experience of administrative staff.

Ho 15: There is no significant relationship between nursing staff turnover and high increased level of minor injuries.

	Yrs of exp.	Mean rank	P value
Increased minor injuries	Less than 1 year	24.23	0.580
	1-3 years	23.90	
	3-5 years	18.40	
	More than 5 years	25.11	

P value, in this case, is 0.580 which is more than 0.05 hence there is no difference in opinion for increased minor injuries according to experience of administrative staff.

Ho 16: There is no significant relationship between nursing staff turnover and high affects reputation of hospital.

	Yrs of exp.	Mean rank	P value
Affects reputation of hospital	Less than 1 year	20.50	0.567
	1-3 years	24.97	
	3-5 years	20.20	
	More than 5 years	25.89	

P value, in this case, is 0.567 which is more than 0.05 hence there is no difference in opinion for affects reputation of hospital according to experience of administrative staff.

FINDINGS AND CONCLUSION

Finding 1:

1. Nursing staff turnover causes extra workload on remaining staff.
2. Nursing staff turnover causes poor job satisfaction of remaining staff.
3. Nursing staff turnover causes high stress amongst remaining nurses.
4. Nursing staff turnover does affect to leaves of remaining staff but to less extent.
5. Nursing staff turnover causes sickness amongst remaining nurses.
6. Nursing staff turnover causes more complaints from patients.
7. Nursing staff turnover causes more complaints from doctors about nurses.
8. Nursing staff turnover causes more complaints from housekeeping staff about improper waste segregation.
9. Nursing staff turnover causes increased cost.
10. Nursing staff turnover causes difficulty in managing patient flow at the time of festival.
11. Nursing staff turnover causes delay in routine procedures.
12. Nursing staff turnover causes damage of equipments because of lack of knowledge of new nurses.
13. Nursing staff turnover causes disturbed workflow.
14. Nursing staff turnover causes high conflict between remaining staff.
15. Nursing staff turnover causes increased level of minor injuries.
16. Nursing staff turnover affects reputation of hospital.

Finding 2:

Opinion of administrative staff differ according to-

1. Complains from housekeeping staff for improper waste segregation (p value-0.008).
2. Increased cost (p value-0.023).
3. Difficult to manage patient flow at time of festival (p value-0.011).
4. Delay in routine procedure (p value-0.047).

It is crystal clear in our study that nurses' turnover in trust-based hospital is ensuing in a negative impact, which is required to be reduced. There are many negative impacts due to nurses turnover such as extra workload, poor job satisfaction, high stress, affect to leave status, sickness on remaining staffs and in addition to that, there are possibilities of disturbances in the workflow increases the cost of the organization, complain from patients and doctors, the effect on routine procedure due to lack of knowledge of newly recruit nurses about the work process of hospitals. In the end, it indirectly affects the reputation of hospitals. On the course of the conversation, few eminent members of top management expressed a very significant point concerning the causes and consequences of nurse turnover, which provides us an opportunity for further exploration of underlying reasons and those causes will not only expose the loopholes of the work process but will also; provide us a chance to rectify the system.

RECOMMENDATIONS

It is needed by all health care providers to outline the strategies which will assist to retain nursing staff. It is required to be cautious from the procedure of recruitment & selection and to train as well as the development of nursing staff. It is advisable that nursing staff should be provided flexible working hours, systematic performance appraisal system, job security, promotions, proper recognition and reward for achievements too, which won't just decrease turnover rates and yet additionally improve the reputation of the hospital.

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A STUDY ON THE IMPORTANCE OF BLACK SWANS AND VAR

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ABSTRACT

There are two general classes of likelihood spaces; each is unmistakable, both subjectively and quantitatively. The principal appropriation is known as thin tail, the second is fat tail. In slight tail disseminations, factual special cases happen yet they don't convey bizarrely enormous results. In fat-tail conveyances, when critical deviations (Black swans) happen, the results are normally disastrous in nature. Black Swan is an occasion or event that strays past what is regularly expected of a circumstance and that would be very hard to anticipate. Standard deviation is a helpful factual estimation of hazard, if the fundamental resource returns are circulated in a typical manner about the mean. Be that as it may, if the benefit returns go amiss altogether from what might be normal in a slim tail standard deviation is regularly a lacking and poor estimation of all out hazard and can frequently bring about the genuine underestimation of potential misfortunes. VaR is genuinely exact in anticipating little day by day misfortunes with high likelihood; it separates totally in determining enormous calamitous misfortunes that exist in the tail of the dispersion – Black swan occasions. A look

at the Dow Jones Industrial Average's greatest one-day additions and misfortunes affirms the presence of Black swan occasions: On every one of two distinct days in October 2008, the Dow flooded over 10%. On every one of eight unique days in late 2008, the Dow gave back over 5%. 2008 was an especially unstable year, however enormous moves can happen whenever. Right now, hypothetical ordinariness supposition that is observationally tried (and obviously dismissed) utilizing time arrangement of stock returns for the U.S. securities exchange throughout the previous 30 years. The reason for this examination is to represent the presence of black swan occasions and their authentic recurrence, giving specific consideration to the timeframe 1980-2010.

Keywords: VaR, Black Swans, Thin Tail, kurtosis, fat tails.

INTRODUCTIONS

The expression "Black Swan" originates from the normal misguided judgment that 'All swans are white' and has discovered general application in the money related markets, particularly considering the 1987 securities exchange crash, the 2008/09 credit showcase

emergency and the 2010 blaze crash. A Black Swan is a representation that was begat by Nassim Taleb to portray occasions that are evidently conceivable, however couldn't have been anticipated dependent on past proof. Before Taleb, David Hume (1748), John Mill (1843) and Karl Popper (1968) all portrayed the issue of reaching general determinations from restricted perceptions. Budgetary choice models depend on a model foreseeing conceivable money related results frequently disregards, yet consistently restricts the effect of occasions which are viewed as exceptions to the model. A solitary such locating of a black swan can nullify that 'all swans are white'. Taleb anyway was not the first to find "fat tails" in stock returns. Present day monetary hypothesis has propelled our comprehension of budgetary markets colossally; some of money related hypothesis' central suspicions don't seem, by all accounts, to be borne out by showcase real factors. An ordinary circulation is an incredible logical device, since one can determine the conveyance with just two factors, the mean and the square foundation of the change. In any case, these models are delinquent in catching 'fat tails': rare yet enormous value changes. Fat tails are firmly identified with power laws, a numerical connection between two factors that are described by visit little occasions and rare enormous occasions. (Mauboussin, 2002). This is the aftereffect of the mix of kurtosis hazard and the hazard related with skewness.

Suppositions of typical dispersions of stock returns are the mainstays of finance models, including present day portfolio hypothesis (mean-difference measure), the capital resource estimating, Value-at-Risk (VaR). The 1987 stock exchange crash was so implausible (black Monday was a black swan - 18 sigma occasion)

given the standard factual models utilized in account, that it has called the whole premise of neo-traditional money models into question and this drove numerous to reason that there are some repetitive occasions, maybe a couple for each decade, that overpowers the measurable suppositions inserted in the standard fund models utilized for exchanging, venture the board and subsidiary evaluating (Estrada 2008). These factual inconsistencies seemed to influence numerous money related markets immediately, including ones that were regularly not thought to be connected. Additionally, these extreme market occasions rarely had a noticeable monetary reason or cautioning. These uncommon occasions were later named "Black Swans" by Taleb (2007) and the idea has stretched out a long ways past fund. By definition, dark swan occasions come up short on the authentic point of view expected to perform ex-ante numerical hazard investigation.

LITERATURE REVIEW

Various Industry experts, academicians and research scholars have conducted a large number of studies on Black swan and VaR. Here is a brief description of the prominent studies related to the theme of the study:

Starting with Engle (1982) and later with Bollerslev in 1986, examined that "Generalized Autoregressive Conditional Heteroskedasticity models" also referred as GARCH models more accurately describe the random nature of actual stock returns than the thin tail assumption.

Benoit Mandelbrot inferred that based on his investigation of stock returns, that the over dependence on the supposition of ordinary dispersion of return has brought about genuine defects in most present day budgetary model

and he widely explored this issue. He reasoned that the broad dependence on the ordinary appropriation for a significant part of the group of present day money and venture hypothesis is a genuine blemish of account demonstrating (counting the Black-Scholes choice model, and the Capital Asset Pricing Model). He clarified his perspectives and elective money hypothesis in a book: *The Misbehavior of Markets*.

Mandelbrot (1997) proposed to replace the normality assumption with a “fractal view of risk, ruin, and reward.”. According to the fractal view, large stock return swings are far more clustered than what would be predicted if the market followed a random walk normal distribution; the prevailing paradigm in investments.

Eugene Fama demonstrated that extreme returns occurred with much greater frequency than if returns were normally distributed by testing stock price changes. According to Fama (1965): “Mandelbrot is right. The distribution is fat-tailed relative to the normal distribution. In other words, extreme returns occur much more often than would be expected if returns were normal. As the result, the normality of stock returns has been replaced by the assumption of fat-tailed distributions in a wide variety of markets, assets, and time periods.”

Kon (1984), Berglund and Liljeblom (1990), Campbell and Hentschel (1992), Chan and later, Frennberg (1993), has examined subsequent to looking at foreign markets covering distinctive timeframes, all reasoned that stock returns will in general be fat followed and not thin tail in nature.

Roll (1988) conducted the study that the stock market returns tends to increase the degree of kurtosis of the returns and often results in increased outliers or fat tails when compared to

the ubiquitous normal distribution. This doesn't address the subject of why black swan occasions seem to bunch together.

RESEARCH METHODOLOGY

A standard typical circulation is an ordinary chime molded dispersion with a unit change () and a zero mean (). A Fat tail is a likelihood circulation wherein there is an enormous likelihood of encountering a little addition, combined with a little likelihood of encountering an extremely huge misfortune; which more than exceeds the increases. The mean of this hypothetical dispersion is under 0 and the difference is boundless. The experimental dissemination has fat tails (leptokurtic) and a high level of kurtosis when contrasted with the typical appropriation. An arrival circulation that is topped or firmly conveyed shows a high level of kurtosis and normally will be described by fat tails in the dissemination. This is particularly evident when contrasted and the flimsy followed typical appropriation. These fat tail imply that there exists a more noteworthy likelihood for outrageous occasions happening and are alluded to in the writing as leptokurtosis. To decide the recurrence of black swan occasions happening, a multiyear timeframe was chosen using day by day, week by week and month to month returns. The s&p500 fills in as the intermediary for the market. To observationally distinguish the nearness of extraordinary dark swans in the U.S. securities exchanges, two distinct philosophies were utilized right now an endeavor to experimentally distinguish the nearness of outrageous dark swan occasions on the NYSE. The main strategy was to ascertain the measurable properties of stock profits

for a month to month, week after week and regular routine. Furthermore, the scopes of dissemination frequencies were processed for every day, week by week and month to month returns over the timeframe of March 31, 1979 and March 31, 2009.

VALUE AT RISK

Value at Risk (VaR) has been broadly utilized to determine the potential hazard for misfortunes on a monetary resource portfolio and is normally characterized as the most extreme worth that the “mark-to advertise” misfortune likelihood on the portfolio will surpass this limit esteem. This is regularly alluded to as the potential misfortune to resource esteems estimated in the association’s every day accounts. VaR accept a lognormal dispersion return process dependent on a hidden typical dissemination of profits. A misfortune which surpasses the VaR limit is commonly named a “VaR break,” with a likelihood level of one short the likelihood of a VaR break happening. VaR essentially denotes the factual limit between typical days and extraordinary occasion (Black Swan) days.

NORMAL VS. FAT-TAIL VAR

For a likelihood conveyance to be viewed as steady, all the free irregular factors should likewise have a similar circulation as the constants α and β . In addition, the typical circulation is the main stable dispersion whose standard deviation is characterized; all other appropriations have standard deviations that are either boundless or unclear. Given some certainty level t the VaR of the portfolio at the certainty level a is given by the most modest number l to such an extent that the likelihood that the misfortune L

surpasses l isn’t bigger than $(1 - a)$. A typical dispersion is characterized as an appropriation whose normal worth = 0 and whose sigma = 1. Fat tail appropriations are instances of fat tail conveyances that have “endless sigma” (all the more actually: “the change doesn’t exist”). The reason for receiving the ordinariness conveyance supposition that was to not diminish the hypothetical model to a unimportant observational dissemination fitting, Mandelbrot thought it was silly to need to expect various circulations for every day, month to month and yearly stock returns. Rather, he looked for a model that could be applied to all classes of advantage returns, paying little heed to the time interim being estimated. He found that he could achieve this by expecting a typical circulation of profits (Mandelbrot, 1999). In this manner when return information normally emerge from a fat tail dispersion, in the event that the typical circulation model of hazard is accepted, at that point a gauge of the comparing sigma dependent on a limited example size, seriously downplays the genuine hazard. Numerous academicians have noticed this weakness of the ordinary appropriation demonstrate and have recommended that fat tail conveyances, for example, the steady dissemination administer resource comes back to supplant the typicality supposition in money related models (Mandelbrot 2008; Taleb 2009). Most circulations that are considered “stable” for the most part contain “fat tails”. The genuine S&P 500 return circulation showed a lot more noteworthy unpredictability than what might be normal in view of from the earlier likelihood. Graph 1 shows what the normal ordinary recurrence dissemination of profits one would anticipate from 1979-2009 (ran line) on the ‘ordinary’ dispersion.

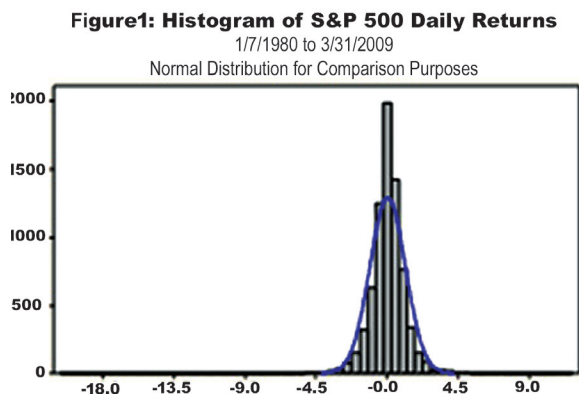
The actual realized returns on the market index (SPX) is (1) highly right skewed, (2) much larger frequency of returns (leptokurtosis) occurring around the mean. The frequency of returns that occurred between 1 and 2 standard deviations was much smaller than expected and (3) finally very large negative returns occurred much more frequently than predicted. In this context, 'fat tails' simply refers to the larger -than-expected large positive or negative returns.

ANALYSIS

Now the question comes in: Did the samples come from normally distributed populations?

Null Hypothesis: There is no statistically significant difference between the expected and observed frequencies. If there are no differences

Chart 1: Histogram



then the null hypothesis is rejected and it can be concluded that the sample in question was drawn from a normally distributed population.

Alternative Hypothesis: There is a difference between the observed and expected frequencies. The sample was not drawn from a normally

distributed hypothesis. A normal distribution is expected to have a 0 kurtosis, with a stable distribution expected to have a 1 kurtosis. Negative skewness indicates that the curve has a noticeable longer left (or negative) tail. The distribution does not appear to log normal either, but appears to be more representative of a fat tail distribution.

OBSERVATIONS

Under the statistical normal distribution assumption of performance returns, deviations from the mean return should occur with a certain frequency; the greater the deviance, the lower the frequency associated with occurring. Table 1 shows the daily performance of the S&P 500 relative to what would be predicted based upon the analysis. Clearly the probability for significant negative returns, which is commonly referred as three standard deviations from the mean (99.9%), exceeds the probability based on the model output. Employing a Chi-Square goodness-of-fit test, the p-Value of 0.000 indicates that there is no chance that the observations come from a normal distribution. See table 2. In Table 2, the p-value corresponding to the computed value of the chi-square test statistic is 0.000. The null hypothesis is strongly rejected. The statistical evidence suggests that there is virtually no chance that these test samples were selected from a normally distributed population. The distributions are "pinched" around the mean. In other words, the actual distributions are not thin tailed like the normal, they are leptokurtic / fat tailed. The appropriate theoretical probability distribution to use in a model (like VaR) would have to be leptokurtic and skewed left. The expected values

were determined by multiplying the number of observations in the sample by the following values which were derived from the normal distribution: It is interesting to note the volatility

in returns for 2008 and 2009 with 26/53 3+/- standard deviation day movements occurred in this time period. The clustering effect is clearly evident.

Table 1: Number Of Daily S&P 500 Percent Return More Than 3 Standard Deviations Below The Mean

Year	Numbers Of The Days	Percent
1982	1	1.89
1983	0	0.00
1984	0	0.00
1985	0	0.00
1986	1	1.89
1987	6	11.32
1988	2	3.77
1989	1	1.89
1990	0	0.00
1991	1	1.89
1992	0	0.00
1993	0	0.00
1994	0	0.00
1995	0	0.00

1996	0	0.00
1997	1	1.89
1998	3	5.66
1999	0	0.00
2000	2	3.77
2001	3	5.66
2002	4	7.55
2003	1	1.89
2004	0	0.00
2005	0	0.00
2006	0	0.00
2007	1	1.89
2008	19**	35.85
2009	7*	13.21
TOTAL	53	100

BLACK SWAN EVENTS 1916-2010

<u>DAILY CHANGE+01-</u>	<u>EXPECTED</u>	<u>ACTUAL</u>	<u>ACTUAL VS EXPECTED</u>
>3.4%	81	425	5X
>4.5%	2	194	97X
>7.0%	1 IN 75,600,000	44	

Table 2 : Result of Chi-Square Analysis of S&P Results

Range of Z Scores	Observed Frequencies Daily	Expected-Frequencies Daily	Observed Frequencies Weekly	Expected-Frequencies Weekly	Observed Frequencies Monthly	Expected-Frequencies Monthly
$Z \leq -3$	53	9.96	15	2.11	3	0
$-3 < Z \leq -2$	118	157.87	23	33.47	10	7.68
$-2 < Z \leq -1$	596	1002.61	153	212.56	32	48.79
$-1 < Z \leq 0$	2856	2518.07	543	533.86	114	122.54
$0 \leq Z < 1$	3001	2518.07	651	533.86	153	122.54
$0 \leq Z < 2$	595	1002.61	143	212.56	40	48.79
$0 \leq Z < 3$	101	157.87	26	33.47	7	7.68
$Z \geq 3$	57	9.96	10	2.11	0	0.48
Total	7377	7377	1564	1564	359	359
$\chi^2=907.35$		P-Value = 0.000	$\chi^2=173.41$		PValue= 0.000	$\chi^2=29.53$
						PValue= 0.000

CONCLUSIONS

A VaR model commonly expect a log-ordinary value dispersion process, and that the log return process follows an ordinary dissemination. In any case, genuine money related markets display a few deviations from this perfect, helpful model. The market circulation for stocks has a few reasonable properties not found in the common log-typical models. Today, most money related models measure VaR dependent on the slim followed and symmetric typical, “Bell-Shaped” distribution curve. As exhibited by the stock market meltdown of 2008, these typical conveyance suppositions brought about excessively idealistic VaR gauges; deficiently representing outrageous occasions. The purpose of this paper was to empirically examine the underlying stock return distribution for the past thirty year period. In 2008, most financial strategies/models were predicated on the flawed

assumption of normally distributed returns demonstrated how fat-tail risk can wipe out an investor. For example, Bear Sterns, Fanny, Freddy, Merrill Lynch and AIG all succumbed to the black swan market credit market event of 2008/09 and subsequently failed because of their exposure to certain fat tail risks. It appears that professional investors have become much better at understanding and managing predictable portfolio risks based on assumed probabilities of recent financial hedging tool that have been recently developed. Unfortunately, the recent financial history has also witnessed financial events that could not be predicted based on prior events and have often been quite severe and have resulted in large losses being posted.

Lamentably, the ongoing financial history has seen various extraordinary, and frequently serious, occasions that couldn't be anticipated dependent on earlier occasions. No doubt

present day account procedures and apparatuses may actually, be making the tails of the dissemination a lot fatter. By supporting quirky hazard, for example, outside trade rates, financing costs, ware costs, etc, one can cause their portfolio to give off an impression of being moderately protected. Be that as it may, swapping ordinary hazard for the excellent hazard results in these 'black swan' occasions happening significantly more much of the time than regular hypothesis would propose.

SUMMARY

On the off chance that the perceptions don't give off an impression of being evenly spread around the normal worth, the dissemination is said to be slanted. On the off chance that the conveyance is slanted, the normal and the middle return will be very extraordinary. In the event that one accept that the factors are balanced about the mean, along these lines overlooking skewness chance, the aftereffects of the budgetary model will significantly downplay the hazard/return qualities.

In the event that skewness chance and kurtosis chance is disregarded, the resultant ends dependent on the VaR model will be exposed to genuine estimation mistake. The VaR measure ought to be considered as a deficient hazard execution measure, since it disregards both the skewness and kurtosis of the arrival. It additionally overlooks all the partial minutes coming about because of the long haul interdependencies of financial exchange value changes/returns. As a result, the VaR methodology gives far too little importance to extreme outliers that when they occur are not only catastrophic in nature but also appear

to cluster. This is not limited to VaR however; the Black-Scholes model of option pricing is also predicated on a normal distribution. If the stock return distribution is actually a fat-tailed one, then the model will underprice options that are far out of the money, since a 5 or 7 sigma event is more likely than what could be expected under a Gaussian distribution or bell shaped curve.

In summary, small price changes appear more frequently and large negative changes appear far greater than what a normal distribution would predict. Greater than-expected large price changes occurred with greater frequency of these events increased significantly in 2008 and 2009. As a result, there exists much fatter tails with higher probabilities and far less medium sized changes than the normal distribution model would suggest under the standard risk models being employed thus. Extremely large stock price changes appear to have now become the new norm post 2008. As a result, VaR fails to adequately measure the tail beyond the 99% confidence interval leaving out some reasonably uncommon, but extremely large potential for financial losses due to the existence of black swan events; exactly the kind of losses that portfolio risk managers should be most concerned about. Black swans appear to be alive and well, both in nature and in the capital markets.

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AN HR MANAGER CONFRONTING CHALLENGE OF CHANGE (CASE STUDY ON EMPLOYEE ATTENDANCE MANAGEMENT)

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ABSTRACT

It is a widely held age old belief that attendance system plays a vital role in an organization as it defines its employee productivity. On the other hand the changing business landscape is posing multiple challenges to the modern day managers to confront. In order to boldly face the challenges and attain competitive edge many companies are on an innovation spree and hence challenging the stereotypes. The present case is related to a more than six decade old textile company's HR head's dilemma of whether to continue its struggle for a better attendance management system? or doing away with it, as has been done by a few other companies. Exhibits help corroborate and supplement the information presented in the case. End of the case poses certain questions, answers of which can be discussed in the classroom with the help of teaching notes.

Keywords: Attendance management, Biometric, Showcard, Human Resource Management.

INTRODUCTIONS

It was September 18, 2018 morning when Mr. Singh was going through 'The Economic

Times', and he got stuck on the headline 'In new world order, output counts, not attendance. The news item not only caught his attention but also drew the current Human Resource (HR) landscape in his mind marked by the new talent demographics being managed by a vast range of flexible HR practices. The companies like Ceat, Godrej, Cipla, Tata Motors, Mahindra and Mahindra and Pidilite are bringing to the fore new age innovative HR practices. They are leaving no stone unturned to tap the available potential of its workforce and hence for the purpose breaking the stereotypes. In the new world order companies are attempting to make attendance system defunct while trying hands on a number of variants like flexi-timing and work@home practices.

Mr. Singh is heading Human Resource department of a worldwide renowned textile company ('ABC company' - pseudonym) headquartered in Punjab, India. Just recently ABC company has installed face recognition machines at two plant locations as a step forward not only to get rid of attendance management related complications that his team is facing

but also to better utilize the technological advancements. Since long the HR team at the company is finding it difficult to deal with low employee punctuality at the workplace.

ABOUT THE COMPANY

The company started its business as a tiny worsted spinning & hosiery unit in Ludhiana. In the year 1980, it got incorporated as private limited company. A few years after its incorporation it became a public limited company. Later, the company earned the status of an Export House enabled by the steady growth in manufacture & export of woolen /cotton hosiery, knitwears & woolen textiles. In a short span of even less than a decade the company was known as a Recognized Trading House by the Government of India. The company is the part of a reputed industrial conglomerate with a wide ranging portfolio from wool combing, spinning, knitting, fabric, hosiery garments etc. which was established in late 1940s'. The present study relates to one of the various units belonging to the group of companies with approximately 13000 employees.

WHY ATTENDANCE MATTERS?

The HR head believes that key element of any organization, that helps measuring its employee productivity is employee attendance system. It is important to keep track of employee in and out timings and their activities at the workplace. Primarily, even delays of few minutes everyday gets accumulated to hours of lost productive time. Secondly, employers usually desire to avoid potential claims of failure to properly pay compensation including overtime. Such employers look for better (in terms of accuracy

and reliability) ways to ensure that at any given time an employee was actually present (or perhaps was not present) in the workplace. Additionally, keeping a record of employee attendance is a legal requirement as per Factories Act, 1948 (see exhibit 1,2,3), for evaluating claims of ESI benefits, Gratuity, and Provident Fund etc. of employees.

MAINTAINING EMPLOYEE ATTENDANCE REGISTERS (MANUAL)

Mr. Singh recalled the situation some where in 1980's when everyday morning an employee register with a single column for signatures used to be kept at the factory gate till 9.10 am later it was placed in time office. In the morning workers had to come one by one to put their signatures on the register before going to their respective departments. Those who came late had then to mark attendance in the time office under observation of an authorized person who would then report such cases to higher authorities for further counselling. Those were the days when manual attendance registers were used in most of the Indian companies. The practise of putting up only signatures on the attendance register and late coming followed by mere verbal counselling made it difficult to undertake a detailed analysis of attendance timings due to absence of such record. In order to have such record in writing and curb workers' habit of arriving late. The need was felt to keep record of time of entry of employees and hence the one columnar register was replaced with a two columnar register, where employees had to enter time of arrival and put signatures in a corresponding column. But cases were reported where workers when arrived late

did not mark attendance on the registers. If the employee was questioned s/he used to make an excuse that s/he forgot to mark the attendance in a hurry. Later it was also noticed that certain workers left the workplace early without even intimating the supervisor. Another addition was then made to enter the time and put signatures twice that is at the time of arrival and departure but of little respite. Manual attendance system could not stop fake attendance (including employee marking his/her own attendance later or marking fake attendance of a colleague), wrong reporting of time in and out and then a lot of manual work was required for calculating days/hours worked, leaves availed by workers and then calculation of salaries/wages that could again involve errors to be rectified.

ATTENDANCE BY SHOW-CARD

Apart from the ongoing struggle, in the late 1990s when the company started exporting goods to foreign destinations, they again had to transform their attendance system. The Company has to name a few GAP, Tommy Hilfiger and ESPRIT among its international clientele. These international buyers expect the vendor companies to abide by its 'Vendor Code of Conduct'. Apart from other contents of the said document, it clearly prohibits its business partners from acting unlawfully as an employer (e.g. by adhering to legally defined employee working hours) (see exhibit 4,5). They clearly prohibit their business partners to request overtime regularly. Moreover they expect overtime to be paid at a premium rate. Foreign buyers did not accept employee attendance registers as authentic source of information and expected computerized attendance to be in

place. The company was then forced to adopt computerised attendance system. Though there was a cost to be incurred for the same yet it was believed to be promising multiple benefits in terms of more reliable punching of time in and out, reduced manual data entry related errors and easy payroll maintenance etc. Earlier the time office of the company had to maintain attendance register and leave register manually with a high possibility of fake attendance and errors. Then a number of man hours used to get lost in manually feeding the data and calculating payroll. So the company worked out to adopt the showcard system of attendance keeping and installed showcard machines at the factory premises (see exhibit 6). Showcard is a contactless proximity card which uses Radio Frequency reading technology. Clocking in and out is quite simple as a workers just need to hold show card in front of the reader, where it is scanned automatically in just fraction of a second. This results into the attendance logs getting stored in the standalone attendance machine itself. Those logs can be manually or automatically downloaded to computer and generate the reports. Showcard attendance system was adopted for all the employees irrespective of their position or nature of job. Both blue collar as well as white collar employees had to mark attendance using showcard issued to them. But the new system also brought with it the challenges for the HR manager to confront. The employees could not resist the possible misuse of the system and certain flaws continued to exist. Some employees were reported to repetitively come late in the morning and few others would leave the office in the lunch break which was much before the scheduled leaving time in the evening while handing over their showcard to

one of their coworker who would leave late to punch his attendance then (buddy punching). Not only this but a number of more issues were there in front of HR department to resolve. The company had to bear the cost of the cards and the cost of registers (comparatively less than cards) was not even done away with completely as employees used to forget bringing cards to the workplace. In order to resolve such issues an alternate arrangement of marking attendance in a register named 'Card Not Punched (CNP) register' had to be kept. It was also noticed that employees used to handle cards carelessly like always keeping it in back pocket which led to quite a large number of cards getting damaged and required replacement (see exhibit 7). This caused the need to maintain inventory of cards for replacement further adding-up to the cost. And the department received a jolt when a tragic and shocking incident occurred. One of the workers who met with an accident outside the factory premises was found to be present at the factory as per the attendance records. The situation called for an urgent attention and immediate action.

BIOMETRIC ATTENDANCE USING FINGER IMPRESSION

Reacting to the shocking incident the company officials found a solution in adopting biometric attendance system. Under the biometric attendance management system the identification of a specific person is done using his/her distinctive physical or behavioral characteristics. These systems are based on the identification of a person using their unique inherited attribute. As compared with passwords or identification cards biometric

attendance management system offers a high level of security. Such systems are based on pattern recognition which consists of two parts: enrollment and recognition. In the first step, biometric traits are obtained from the individual, only distinctive features of the data collected are stored in the database. In the latter part, biometric data is collected from the individual and compared with the data stored at the enrollment step in order to recognize and authenticate the person identity. In order to monitor staff, fingerprint recognition devices are mainly used for recording employees' time. These devices have built-in software that calculates accurately the time-in and out, working hours, breaks, leaves, over time and payroll. Workers can clock in and out just by using their fingerprints in a faster way than traditional methods such as passwords or magnetic cards. Moreover, biometric technologies offer an accurate verification where just an authorized person gets access to the information or place that is secured. In the year 2015 one finger scanner (see exhibit 8) was installed in the factory premises on a trial basis as the company started SAP- HCM module. Then as per the requirement of SAP- HCM module the company installed required number of machines for Time-In and equal number of machines for Time-Out (see exhibit 9). The problem then was faced with regard to attendance marking by employees/workers whose finger impressions were lost due to their nature of work like those in spinning units. For such cases the show card system was retained with all its limitations. But...attendance related issues kept on springing up and then Mr. Singh thought of floating an office circular (see exhibit 10).

Questions

1. What are the various legal requirements with regard to keeping attendance as per various Legal enactments in India?
2. 'The benefits of Biometric attendance system outweigh the associated risks'. How far do you agree with the statement, discuss.
3. Do you think biometric attendance system is significantly better than the traditional manual attendance registers? Workout a comparison between the manual attendance and Biometric attendance systems in order to support your answer.
4. How will you define punctuality at the workplace? Can punctuality ensure high performance.
5. What is the problem being faced by Mr. Singh? Assume yourself in place of Mr. Singh and enlist the possible drivers and inhibitors of the decision to bring more flexibility in the current attendance management system. Suggest some possible future course/s of action.

EXHIBITS

Exhibit 1: Excerpts from form21: annual return of the factory

NUMBER OF WORKERS AND PARTICULARS OF EMPLOYMENT

9. Number of mandays worked (i.e.) aggregate number of attendance during the year) (See explanatory note 'C')

- | | |
|------------------|---------------|
| (a) Adults | (i) Men : |
| | (ii) Women : |
| (b) Young person | (i) Male : |
| | (ii) Female : |
| (c) Children | (i) Boys : |
| | (ii) Girls : |
| | Total : |

10. Average Number of workers employed daily i.e. Mandays worked divided by Number of days worked (See Explanatory Note 'D')

- | | |
|----------------|---------------|
| (a) Adults | (i) Men : |
| | (ii) Women : |
| (b) Adolescent | (i) Male : |
| | (ii) Female : |
| (c) Children | (i) Boys : |
| | (ii) Girls : |
| | Total : |

11. Total Number of man-hours worked including overtime But excluding rest interval (See Explanatory Note 'E')

- | | |
|----------------|---------------|
| (b) Adults | (i) Men : |
| | (ii) Women : |
| (b) Adolescent | (i) Male : |
| | (ii) Female : |
| (c) Children | (i) Boys : |
| | (ii) Girls : |
| | Total : |

Exhibit 2: Attendance card form 28

FORM NO. 28
[Prescribed under Rule 115 (3)]

Name of factory.....
 Serial No.....Department.....
 Name of Worker.....
 Father's or Mother's name.....
 Permanent address.....
 Local address.....

Date of commencement of
Employment

Signature or thumb impression
of worker

*Date of termination of
Employment

*Note:- To be entered only when employee is terminated.

ENTRIES ON THE REVERSE SIDE

Month of19.....

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	

Signature of initials of
Manager or Time keeper

Exhibit 3: Form 11 of Factories Act.

FORM -11
(Prescribed under Rule 106

NOTICE OF PERIODS OF WORK FOR ADULT WORKERS

Name of factory:**Place:****District:**

Periods of work	Men															Women															Description of groups			
	Total number of men employed															Total number of women employed															Group letters	Name of work	Remarks	
Group	A			B			C			D			E			F			G			H			I			J						
Relays	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3				
On working Days																															Group letters	Name of work	Remarks	
From																																		A
To																																		B
From																																		C
To																																		D
From																																		E
To																																		F
On partial working Days																																		G
From																																		H
To																																		I
From																																		J
To																																		K
To																															L			

Date on which this notice is first exhibited.....19

(Signed).....
 Manager

Exhibit 4: An excerpt from Gap Vendor Code of Conduct**H. Working Hours**

Factories shall set working hours in compliance with all applicable laws. While it is understood that overtime is often required in garment production, factories shall carry out operations in ways that limit overtime to a level that ensures humane and productive working conditions.

1. The factory complies with all applicable laws, regulations and industry standards on working hours. Except in extraordinary business circumstances, the maximum allowable working hours in any week shall be the lesser of **a) what is permitted by national law, or b) a regular work week of 48 hours plus overtime hours not in excess of 12 hours.**
2. Workers may refuse overtime without any threat of penalty, punishment or dismissal.
3. Workers shall have at least one day off in seven.

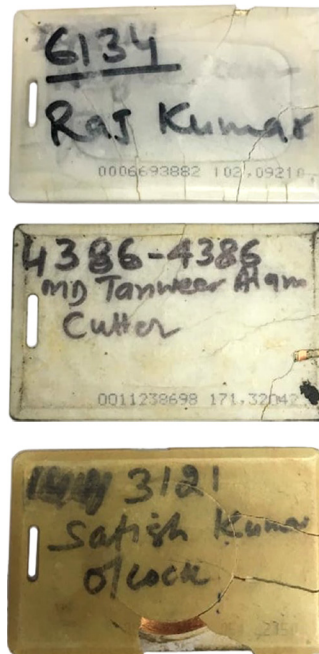
Exhibit 5: An excerpt from Tommy Hilfiger Vendor Code of Conduct**PVH****A Shared Commitment****Hours of work**

Our business partners are prohibited from requiring their employees to work more than the regular and overtime hours permitted under the law of the country where they are employed. In no circumstance may regular hours exceed 48 hours in a week and, other than in exceptional circumstances, the sum of regular and overtime hours in a week cannot exceed 60 hours. Employees must have at least 24 consecutive hours of rest in every seven day period.

Our business partners are not permitted to request overtime on a regular basis. All overtime must be consensual and compensated at a premium rate.

Exhibit 6:

Source: Company Premises

Exhibit 7:**Exhibit 8:**

Source: Company Premises

Exhibit 9:



Source: Company Premises

Exhibit 10: Office Circular**Circular**

- Office timings are 9.00am to 6.00pm
- Grace Timings Office staff - 15 minutes HODs- 30 minutes
- 2 Late Comings and 2 Short Leaves are allowed in a month. Plz. Note short leave is not an individual's right but facility given by the Management which can be refused also by the HOD and you have to abide by it.
- Any employee coming late for more than 2 times -1/2 day (Half day) will be deducted for every late coming.
- Any employee taking more than 2 short leaves -1/2 day (Half day) will be deducted.
- With half day leave, Short leave is not allowed and if someone do so, full day leave/absent will be marked.
- In one day two short leaves cannot be taken (1 in the morning and 1 in the evening) if so it will be marked full day leave/Absent.
- Lunch timings are 1pm to 2pm follow the lunch timings accordingly staff and officer going out for lunch should ensure that they are back in office on or before 2 pm.
- Attendance marking is your right/duty, Mark your attendance regularly and carefully
- Mis-Punch attendance not marked is not good practise, Habitual cases will not be entertained and marked absent. In special case CNP (Card Not Punched) form duly approved by HOD should be submitted next day only.(After week-10 days time nobody remembers and is difficult to be sure of that days status.)
- If you have any problems in marking your attendance report to Personnel department we will look into the it and help you to resolve your problem.
- Mark your attendance even when you are going on 1/2 day (half day) leave or Short Leave Morning or Evening.
- Leave C/L or E/L is your right but submit it with Personnel Department duly approved from your respective HOD before going on leave or immediately after coming back from leave, if not it will be marked absent.
- In case of Out Station Duty/ Local Duty leave submit O/D slip with Personnel Department before going or immediately after coming back duly approved by your respective HOD.

Your co-operation and support in this regard will be highly appreciated.

Source: Company Records

Acknowledgement

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Notes:

1. The case study is based on real company (name not revealed for anonymity) and situation. Interviewee names mentioned in this case are pseudonyms. The case is meant for class discussion and hence, not intended to show effective or ineffective handling of situation. It was reviewed and approved by the company before it was sent for publication.
2. Published reports and website of the company not being revealed upon request for anonymity.
3. Source of images in exhibits 6, 7, 8 and 9 have been taken from Company Premises.

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JOB SATISFACTION AMONG EMPLOYEES WITH CHRONIC ILLNESS AND RESULTANT WORK DISABILITY: EFFECT OF EMPLOYER RELATED VARIABLES

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ABSTRACT

The study has attempted to explore the relationship between disability and job satisfaction among employees with chronic illnesses and disability in the Indian organizations (Delhi NCR, India). The direct correlation statistic for disability and job satisfaction was weak and negative. To explore the relationship further, the role of industry wise differences and size of the organizations (based on number of employees) in the relationship of the disability and job satisfaction among this group was examined using hierarchical regression analysis. The results suggest strong moderation effect of industry sector of the organization in the relationship between disability and job satisfaction of employees with chronic illness and disability.

Keywords: Chronic Illness, disability, job satisfaction, distinct diversity group, industry wise differences, employer-related variables.

INTRODUCTIONS AND LITERATURE REVIEW

There is a steep upsurge globally in the number of people suffering from noncommunicable diseases/chronic illnesses. The World Health Organization (WHO) has declared rise of chronic illnesses as one of the areas which needs immediate attention. Chronic illnesses tend to be of long duration, and are caused as a result of various genetic, physiological, environmental and behavioural factors [1]. The four major types of chronic illnesses are cardio vascular disorders, cancers, chronic pulmonary and respiratory diseases and diabetes. There are other illnesses like epilepsy, multiple sclerosis, Parkinson's disease, chronic kidney diseases, types of arthritis, other musculoskeletal disorders, migraines, and mental illnesses like depression and anxiety. There can be innumerable additions to this list. disproportionately affect people in low- and middle-income countries where more than three quarters of global chronic illness deaths – 32million – occur. These conditions are often associated with older age groups, but

evidence shows that 15 million of all deaths attributed to chronic illnesses occur between the ages of 30 and 69 years. Of these “premature” deaths, over 85% are estimated to occur in low- and middle-income countries. These diseases are driven by forces that include rapid unplanned urbanization, globalization of unhealthy lifestyles and population ageing [1].

Though there are many definitions for chronic illnesses from various sources, but for the current study, the definition of chronic illnesses offered by the World Health Organization will be followed.

Typical challenges of chronic illnesses are that though they are permanent, but there would be sudden bouts of manifestation of the symptoms, followed by periods of invisibility when there are no apparent symptoms, till they might come again. All these episodes of onsets follow an uncertainty pattern, in terms of time as well vary from individual to individual. It implies that though the medical diagnosis for two individuals might be same, but the manifestation of symptoms might vary for them [2]. These challenges give rise to intermittent disability among people afflicted with chronic illnesses, which affect the normal functioning of their lives.

Chronic illnesses have become a major cause of disability these days. Research shows that the diagnosis of chronic illness might affect the individual's perceived ability to work [3]. The World Health Organization International Classification of Functioning, Disability and Health (2002) defines disability as “dynamic interaction between a person's health condition, environmental factors, and personal factors” [4]. Hoving et al (2010) suggests that it is important to keep the demographic group

with chronic illnesses, employed [5]. De Vries (2011) suggests that work motivates people with chronic illnesses to return to work as work increases their self-worth and acts as a source of financial independence [6]. The people with intermittent form of disabilities are often an invisible diversity group in the organizational workforce. Since they are most often invisible, therefore the organization might not be sensitive to and aware of their typical and different needs which might ensure the smooth functioning of their work lives.

Despite the rising number of cases in chronic illnesses and resultant disability, there is still lack of studies in this field as this distinct diversity group is underrepresented. Studies suggest that disability diversity group as a whole is underrepresented in the literature on organizational and industrial psychology [7-9]. People with disabilities need some adjustments in their work and work environment which assists them in efficient work performance and also contributes to their subjective wellbeing. Uppal (2005) attempted to study the reason of negative correlation between disability and job satisfaction, and suggests that one of the possible reasons for the same can be absence of workplace support and adjustments [10]. Through this study, the researcher has attempted to study the industry-based differences in the job satisfaction levels of employees with disability. There are studies of the Indian context which suggest that there exist an industry-based differences in various workplace support policies [11].

The most commonly studied job attitude to understand the employee perceptions towards the organizations is job satisfaction [12-13]. Owing to their nature of being invisible diversity group, it is an imperative for the organization to

study the job satisfaction among employees with disability to better understand their needs and achieve their inclusion among the organizational workforce.

There are innumerable studies in the field of Industrial and organizational psychology which have studied job satisfaction to understand the employee behaviours in work related contexts. Also, there are numerous researches which have attempted to study job satisfaction among employees with disability [10, 14-15].

There are numerous studies in the literature which give inconsistent findings related to the relationship between disability and job satisfaction. They suggest both negative and positive relationship between the two constructs. In order to understand the relationship in the Indian context, the researcher have attempted to study the constructs in the light of the pioneering theoretical framework of Stone and Collela, 1996. Stone and Collela (1996) have suggested a model of factors which affect the treatment of individuals with disability in the organizations. These factors are the personal characteristics of the employee, the organizational characteristics and the legislative framework of the land [16]. In this study, the researcher has attempted to study the organizational characteristics, specifically industry sector and the size of the organization (based on the number of employees).

Through the study, the researcher has attempted to address the following research gaps: 1. To add to the very limited literature on understanding the job satisfaction levels among employees with chronic illnesses and resultant disabilities; 2. To understand the industry-based differences in the job satisfaction levels of the employees with chronic illnesses and resultant disabilities.

Research question and hypothesis

Research question: Does disability have an association with job satisfaction among employees with chronic illness and resultant work disability?

Hypothesis 1a: Industry sector of the organization moderates the relationship between work disability and job satisfaction.

Hypothesis 1b: Organization size (number of employees) moderates the relationship between work disability and job satisfaction.

Hypothesis 1c: Type of chronic illness of the employee moderates the relationship between work disability and job satisfaction.

METHODOLOGY

Sample Selection and Data Collection

Data was collected in Delhi NCR, India. The participation in the survey was voluntary and based on the single inclusion criteria of the individual being in continued employment with a chronic illness and some disability in performing work related activities (work disability). The respondents came from a variety of industry sectors like manufacturing, healthcare, education, Information Technology (IT) and Business Process Outsourcing (BPO). Two routes for data collection had to be followed for the study.

Route 1: The human resource (HR) managers of the various organizations were contacted. The questionnaire link was sent to the email ids of all the employees of those organizations by the HR managers. The email specified the purpose of the study, definition of relevant terms and assured strict anonymity of the respondents. The organizations approached were from a variety of

industry sectors like manufacturing, healthcare, education, IT and BPO. Total 473 emails were sent, out of which 298 were returned, and 53 of them were incomplete. Therefore, we obtained complete data on 245 questionnaires. None of them reported having a chronic illness, though the HR managers, during the interactions, had mentioned 2-3 reported cases of chronic illness in every organization, for which the organization had been lending support. This reflects the fear and insecurity among employees about disclosing their illness in the context of their employment scenario.

Route 2: To overcome the challenge, another route of data collection was administered. The practicing medical professionals including doctors and nurses in various hospitals were contacted to reach out to the patients with chronic illness who were in continued employment at that time. 153 responses were achieved through this alternate route of data collection, out of which 127 responses were complete and included in the final analysis (Response Rate = 83%). For 11 respondents, the questionnaire was translated in Hindi as they were not very comfortable to respond to questionnaires in English language. All of these responses were obtained in pen-paper format.

PRE-TEST

To understand the interplay between work disability and job satisfaction among employees with chronic illness, an exploratory study was conducted, where 7 people were interviewed about their experiences at workplace while coping with their symptoms of chronic illness. During the interviews, the researcher could see that people working in specific industry sectors

reported more challenges in simultaneously managing their illness and work. Also, people working in companies with larger number of employees reported more supportive policies. And people having illnesses like rheumatoid arthritis or multiple sclerosis reported themselves to be less able to attend their office regularly and perform at their best in their work. These are the reasons why certain demographic variables were included in the study as moderators of the association between work disability and job satisfaction.

MEASURES

Job satisfaction was measured by adapted version of Minnesota Job Satisfaction Survey Short version [20]. Each item in the shorter version represents one dimension of job satisfaction. In total, there are 20 items in short version with intrinsic and extrinsic dimensions. Respondents were asked to respond to each of the statements on a 5-point Likert scale ranging from 1 = completely disagree to 5 = completely agree. The Cronbach alpha of the scale was found to be 0.971, indicating good reliability. To confirm the appropriateness of the measurement, confirmatory factor analysis was conducted on the scale. The results of CFA for the study data were: χ^2 (chi square) = 312.9, $df=5$, RMSEA = 0.072; CFI=0.933. Based on the recommendations of Ulman (2007) for chi square, Hu and Bentler (1999) for CFI, and Brown and Cudeck (1993) for RMSEA, these indices suggest a sufficient model fit [17-19].

Work Disability was measured using the adapted version of the work-related items (D5.5-D5.8) of WHODAS 2.0 survey. WHODAS is a 36-item self-administering World Health Organization Disability Assessment Schedule [21]. The

purpose of the survey is to assess the disability of the individual in the various parts of his life, as perceived by the individual. Respondents were asked to respond to each of the statements on a 5-point Likert scale ranging from 1 = completely disagree to 5 = completely agree. The Cronbach alpha of the scale was found to be 0.67, indicating fair reliability. The results of CFA were: χ^2 (chi square) = 312.9, $df=5$, RMSEA = 0.072; CFI=0.933. Based on these indices, there is a sufficient model fit. Demographic variables studied were the type of chronic illness (1=Epilepsy/2=multiple

sclerosis/3=chronic kidney disease), the organization size based on the number of employees (1=0-49/2=50-199/3= ≥ 200), the industry sector in which the works ring/2=Education/3=Healthcare/4=IT/5=BPO). Other demographic variables like age and gender were treated as control variables. The reason for treating them as control variables is their proven relationship with job satisfaction in the previous studies with age [23-23] and gender [10,24-27]. (Uppal, 2005; Sloane & Williams, 2000; Mason, 1997; Brooke & Price, 1989; Arnold & Feldman, 1982).

DATA ANALYSIS AND RESULTS

The descriptive statistics for independent demographic variables (type of chronic illness (CI), industry sector (sec) and organizations size based on the number of employees (comsiz) are presented in Table 1.

Table 1: Descriptive Demographic Statistics of the Sample (Independent Demographic Variables)
CI

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid epilepsy	33	26.0	26.0	26.0
MS	54	42.5	42.5	68.5
CKD	40	31.5	31.5	100.0
Total	127	100.0	100.0	

Sec

	Frequency	Percent	Valid Percent	Cumulative Percent
Validmanufac	19	15.0	15.0	15.0
Healthcare	39	30.7	30.7	45.7
Education	22	17.3	17.3	63.0
It	22	17.3	17.3	80.3
Bpo	25	19.7	19.7	100
Total	127	100.0	100.0	

ComSiz

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0-49	43	33.9	33.9	33.9
50-199	27	21.3	21.3	55.1
more than 200	57	44.9	44.9	100.0
Total	127	100.0	100.0	

Independent variable in the study is the work disability as experienced by the employees with chronic illnesses working in various organization in Delhi. The dependent variable in the study is the work disability among these employees. The purpose of the study is to understand the level of job satisfaction among people with chronic illnesses working in different industries and organization sizes.

The correlations among the variables in the study were found in SPSS. The correlation matrix is presented in Table 2.

Table 2 Correlation Matrix of the study variables

Sec

Pearson Correlation		Job satisfaction	Work Disability	Sector	FirmSize	CI
	JobSatisfaction	1.000	-.011	.824	.579	-.118
	WorkDisability	-.011	1.000	.084	-.183	-.234
	Sec	.824	.084	1.000	.526	-.192
	ComSiz	.579	-.183	.526	1.000	-.128
	CI	.579	-.234	-.192	-.128	1.000

Answer to the Research Question: The correlation between job satisfaction and work disability was found to be negative and statistically insignificant (-0.011, $p > .05$). Therefore, the association between job satisfaction and work disability is weak and they are negatively correlated. In step 1 of hierarchical regression (Table 3), work disability was not significantly correlated to job satisfaction ($b=0.01$, $p > .05$)

Table 3: Hierarchical Regression Results, Coefficients of Regression**Coefficientsa**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.147	.605		5.201	.000
	mean. workdisability	-.014	.202	-.011	-.070	.944
2	(Constant)	2.328	.355		6.553	.000
	mean. workdisability	-.101	.115	-.081	-.881	.384
	Sec	.362	.040	.831	8.997	.000
3	(Constant)	2.029	.388		5.233	.000
	mean. workdisability	-.048	.116	-.038	-.409	.685
	Sec	.317	.047	.729	6.739	.000
	ComSiz	.129	.075	.188	1.719	.094
4	(Constant)	1.911	.477		4.004	.000
	mean. workdisability	-.035	.121	-.028	-.289	..775
	Sec	.319	.048	.733	6.673	.000
	ComSiz	.132	.076	.193	1.734	.092
	CI	.033	.075	.041	.432	.668

a. Dependent Variable: Job Satisfaction**Table 4: Model Summary****Change Statistics**

Model	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	-.026	.61134	.000	.005	1	38	.944
2	.669	.34702	.686	80.939	1	37	.000
3	.686	.33820	.024	2.955	1	36	.094
4	.679	.34208	.002	.187	1	35	.668

- a. Predictors: (Constant), mean.workdisability
- b. Predictors: (Constant), mean.workdisability, Sec
- c. Predictors: (Constant), mean.workdisability, Sec, ComSiz
- d. Predictors: (Constant), mean.workdisability, Sec, ComSiz, CI

Due to the low correlation between job satisfaction and work disability, the moderation effects of the independent demographic variables, the industry sector in which organization operates, the organization size (based on number of employees), and type of chronic illness were explored using hierarchical regression technique by testing the hypothesis 1a, 1b, and 1c. Table 3 gives the hierarchical regression results. Age and gender were added to the control variables. In the Model 1 (a), only the independent variable (predictor) that is work disability was added, followed by organization industry sector(sec) in Model 2, organization size(comsiz) in Model 3 and type of chronic illness (CI) in Model 4.

Hypothesis 1a proposes the moderation effect of the organization's industry sector, that is based on the nature of products and services offered by the organization business to its customers. There is a positive correlation between job satisfaction and industry sector ($r = 0.824$) (Table 2). The regression results also report the strong correlation, with standardized $\beta = 0.831$ at $p < .01$ (statistically significant) (Table 3). The variable industry sector describes 66.9% of the total variance of the data at $p < .01$, which is statistically significant, with change in $R^2 = 0.686$ (Table 4). Therefore, H1a is accepted. **The moderation effect of industry sector on the relationship between disability and job satisfaction is statistically significant.**

Hypothesis 1b proposes the moderation effect of the organization size (number of employees in the organization) on the relationship between

work disability and job satisfaction. There is a positive correlation between job satisfaction and organization size (number of employees) with $r = 0.579$ (Table 2). The standardized regression coefficient $\beta = 0.188$ (Table 3) for organization size, which is statistically insignificant. By introducing the variable 'comsiz', the change in $R^2 = 0.024$ (Table 4) is also statistically insignificant. Therefore, H1b is rejected. **The moderation effect of organization size on the relationship between work disability and job satisfaction is statistically insignificant.**

Hypothesis 1c proposes the moderation of type of chronic illness (CI) on the relationship between work disability and job satisfaction. There is a weak negative correlation between job satisfaction and type of chronic illness with $r = -0.118$ (Table 2). The standardized regression coefficient $\beta = 0.041$ (Table 3) for organization size, which is statistically insignificant. By introducing the variable CI, the change in $R^2 = 0.002$ (Table 4) is also statistically insignificant. Therefore, H1c is rejected. **The moderation effect of organization size on the relationship between work disability and job satisfaction is statistically insignificant.**

In totality of the study, our model explains 67.9% of the variance in data of our sample, with industry sector alone describing 66.9% variance.

Findings, Discussion and Conclusion

The purpose of our study was to make a meaningful contribution to the disability research in India. Since the Rights of Persons with

Disabilities Act, 2016 has been implemented, there has been a new zeal among the Indian employers to accommodate the persons with disability to increase their overall wellbeing and inclusion in the workforce. There are so many awareness workshops and conferences being organized. One such initiative by Confederation of Indian Industries (CII) is having established the India Business Disability Network (IBDN). It is International Labour Organization's India chapter of Global Business Disability Network. Also, the statistics related to disability and chronic illnesses reveal that chronic illnesses are becoming a big cause for disability among the population worldwide. The government has introduced various measures to combat the new epidemic of chronic illnesses. It is an imperative and moral responsibility of the Indian organization to support these national level measures at the micro level that is at the organizational level.

Given the intuitive and contradicting research evidence related to association between disability and job satisfaction, the current research aims to explore this relationship in the Indian context. By introducing the demographic variables like the sector in which the organization operates and the organization size based on the number of employees, the researchers have attempted to highlight their importance towards the perceived work disability among employees.

The finding of weak direct association between work disability and job satisfaction is in line with findings reported in various studies. Schur et al (2009) studied the association between disability and job satisfaction in a large sample of employees [14]. The findings of their study report low negative correlation between disability and job satisfaction, but highlight

the role of corporate culture in strengthening the association of disability and job satisfaction. Another study by Baumgärtner et al (2015) reports the moderating role of structural flexibility in the relation between disability and job satisfaction [15]. They reported a direct negative weak correlation between disability and job satisfaction. The relationship was moderated by the structural flexibility of the organization. They studied the structural flexibility with its two dimensions of formalization and centralization. Their results suggested that formalization of flexibility does not moderate the relationship between disability and job satisfaction but the centralization dimension does moderate this association.

In the present study, out of three predictors demographic variables, the organization sector is primarily moderating the relationship between work disability and job satisfaction. The possible reason for the same could be that some industries like manufacturing, education and healthcare cannot offer various flexible working policies to their employees, specially working from home or from a remote location. In contrast, the organizations operating in industries like IT and BPO, the employees have more variety of flexibility practices to be able to accommodate their other life needs apart from work like flexible timings, working from home or a remote location, attending work meetings via videocalls etc.

In a survey conducted on Indian organizations by Purohit and Patil (2013), the findings suggest that 80% of the IT organizations studied had flexitime policy, whereas no manufacturing organization of the study reported having any flexible time options for its employees [11]. Work from home options were also absent in

the all the manufacturing organizations of the study. However more than 40% of the IT companies studied offered the work from options to its employees either as a policy or case to case basis.

Another very important finding of the study is related to stigma and fear attached to disclosing the health-related information in the work and employment-related context. It was clearly visible when the data collection was attempted through route 1, by contacting the human resource (HR) managers of the select organizations. Though the HR managers admitted of having a few people with chronic illnesses in each of the organization contacted, who are in supported employment, but when the questionnaires were sent to the employees of these companies for their responses, none of them were found to have admitted to be inflicted with any chronic illness.

Another very important observational finding during the researchers' interactions with HR managers was their lack of awareness about what exactly chronic illnesses are. Only 10 percent of the total number of HR managers were clear about the meaning of the term chronic illness. Rest of the HR managers were explained about the chronic illnesses in detail and then they could identify individual cases in their organizations suffering from chronic illnesses. Most of the HR managers were not very welcoming and upcoming about participating in a study related to accommodation of employees with chronic illnesses. They finally agreed when they were assured of complete anonymity during and after the research process. The HR managers came equally from all three sizes of the organizations of our research. This is a finding

pertaining only to the current study, and does not hold true for all the organizations in India. It is the need of the hour for the organizations in India to offer workplace adjustments to people with disabilities, specially to people with disability due to rising number of chronic illnesses, to be able to retain this distinct diversity group of employees, which are most often invisible and appear to be in the group which overtly does not need any adjustment or accommodation. They continue to suffer silently till one day, when they just decide to retreat from the workforce to never come back. It is important to highlight that most of the studies published in the context of exploring the relationship between disability and job satisfaction, have used another variable which determines the strength of relationship between disability and job satisfaction. Based on the Stone and Collela's (1996) model of factors affecting disability in the organizations, it is important to understand the context of the disability which is expected to define the relationship between disability and job satisfaction [16].

Limitations, Implications and Scope of Future Research

Through the study the researchers have attempted to study a new dimension of disability caused by the chronic illnesses in the workplace context. The findings of the study highlight some practical takeaways for the organizations and employers to be able to better accommodate their employees suffering from various chronic illnesses. Though the study contributes to the theoretical and practical aspects of disability related research, but the use of non-experimental

research design keeps the purview of the study out of predicting the causal relationship between the variables [28]. A longitudinal study design is a more appropriate method to study the causal relationships between the variables.

Although the attempt was made to study a larger sample, but the data collected was for small sample size of employees with chronic illness and self-reported work disability. This is possibly because of the fear or resistance from the side of the employees to share their diagnosis of chronic illness and resultant work disability in their employment scenario. However, through the attempt to study the disability of the invisible distinct diversity group, the researchers have been able to emphasize on the identification of the employees with chronic illness as a separate diversity group in the Indian organizations which need consideration and attention during the organizational policy formation and designing.

Also, the latest WHO disability assessment questionnaire work related items were used to clearly measure the only disability in the workplace context. Not many studies have been found which use the WHODAS 2.0

questionnaire for determining the work-related disability in the Indian context. Usage of globally standardised tools should be encouraged to capture the data appropriately. Through this study, the researchers have attempted to encourage the usage of WHODAS 2.0 for disability assessment among people with chronic illnesses and resultant disabilities [21].

The study findings are relevant for policy makers, employers who have employees with chronic illnesses and also for employees with chronic illnesses themselves. There is an immediate need for inclusion of debilitating chronic illnesses in the Indian Legislative Framework and organizations to accommodate this section of society, which is towards an increasing trend due to rapid globalization and lifestyle changes like a greater number of sedentary jobs, more screen time, and irregular sleeping and eating habits among the urban population.

Future researches in the area can focus on other moderating variables which are expected to strengthen and categorically define the relationship between disability and job satisfaction of employees with chronic illness.

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BLOCKCHAIN SOLUTION FOR THIRD PARTY ADMINISTRATOR PROCESS IN HEALTH INSURANCE MEDICAL CLAIMS

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ABSTRACT

India has a vast population of 1.3 Billion people out of which approximately 44% have a health insurance policy ¹. In the FY 2017-18 alone, there were approximately 4.7 million Indians who claimed mediclaim insurance for hospitalization done which included both pre-planned as well as emergency visits to the hospital ². Each of these claims took around 4-6 hours of processing and follow-up time costing hugely to the claimants ³. The objective of this paper is to evaluate the reduction in Turn Around Time (TAT) and thereby reduce costs in terms of man-hours saved by effective use of Blockchain for the purpose of settling claims. Since Blockchain is a new revolutionary development in the field of online real-time processing of data, there have been very few to Nil studies in this area. Secondary data has been collected from various sources (please check References) and analyzed for effective resolution. The evaluation shows that shifting to a Blockchain based platform for processing medical claims will go a long way in reducing TAT thereby

saving both time and cost for the average claimant. Applications: Smart contracts can be applied to automatically indemnify claimants when conditions in the policy are met thereby reducing human intervention in majority of the cases. Conclusion: Blockchain based claim processing platform can ensure that most of the claims are processed on a real time basis.

Keywords: Third Party Administrators, Blockchain, Mediclaim.

INTRODUCTIONS

The world at large has seen huge transformations in terms of faster processing and settlements of insurance claims. In India itself, the claims owing to hospitalization which earlier used to take several days to get processed, now get settled within a few hours. While there has been a drastic improvement in claims settlement as compared to earlier times yet in this day and age, we need faster, real-time settlements coupled with fraud prevention at each step.

Third Party Administrators or TPAs as we call them have been instrumental in processing claims,

acting as the middle ground for both Claimants and Insurance companies. TPA is an agency holding license from the Insurance Regulatory Development Authority to process claims raised by Insurance Claimants post hospitalization. TPAs currently has a team of people which processes the claims on the basis of scanned documents sent to them by the hospital on the day of discharge of the patient. This entire processing is currently being done manually thereby taking several hours in the process. It is important to calculate the financial cost of waiting time of these patients as well as their family members. Sometimes the process takes so long that the patient has to wait in the hospital lobby to get discharged which becomes embarrassing for the whole family, the financial cost of which cannot be ascertained.

MATERIAL AND METHODS

This is a recommendatory research based on a study of current & recommended process.

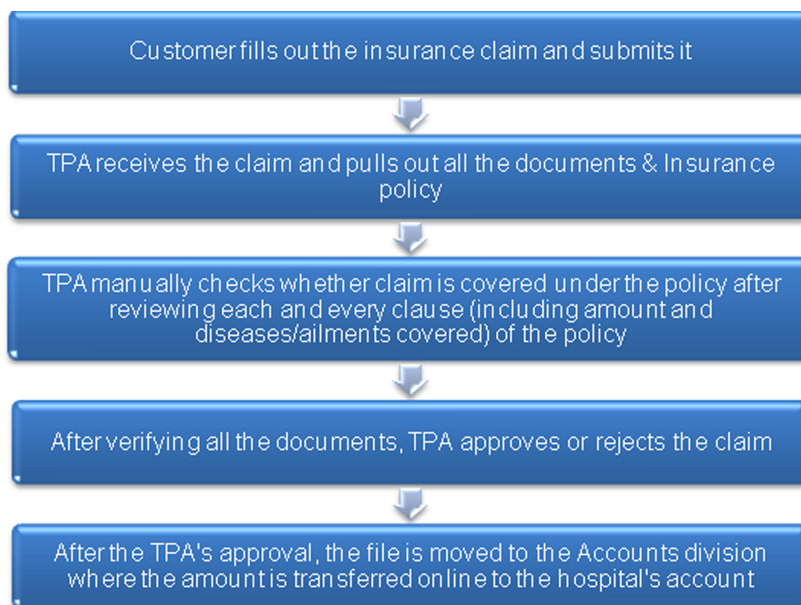
The Turn Around Time of both the processes have been taken into consideration along with an evaluation of the costs involved as well as time saved.

The costs involved have been calculated taking into consideration the per capita income of India detailing it further down to hourly earnings. This has then been multiplied with the average number of hours which will be saved by using Blockchain.

The number of claims admitted by TPA for the year Financial Year 2017-18 have been taken from the Annual Report of Insurance Regulatory And Development Authority of India (IRDAI) ².

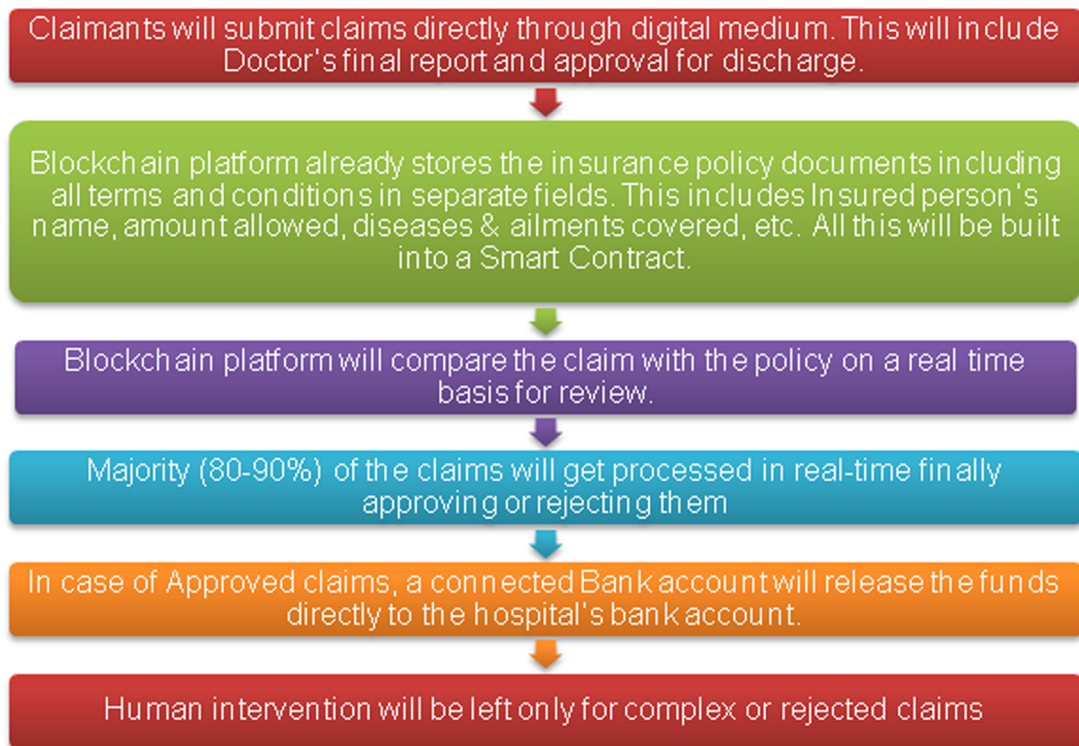
RESULTS AND DISCUSSION

Flow chart 1 shows the current process being followed to claim insurance post hospitalization. As it can be noticed, the process is largely manual with the TPA comparing and verifying each and every policy detail and then taking a call on approval or rejection.



Entire process takes 2 to 8 hours

Flow chart 2 shows how Blockchain can reduce the turnaround time of several hours to a few minutes by real time comparison of claims with the policy with the help of smart contracts thereby saving both time and money in the process.



Entire Process will take 1 to 5 minutes

CONCLUSIONS

In today's era of information and connectivity, it becomes imperative that policy holders are safeguarded on two important aspects:

1. Loss of valuable time in waiting for the claim approval
2. Safeguard on any false or duplicate claims

Blockchain, being a decentralized, transparent & immutable ledger gives Insurance companies the opportunity to win the confidence of claimants and save their precious time in getting discharged from the hospital. It also safeguards the policy holders as well as the insurance companies from any kind of duplication or false claims by providing an individual code known as Hash to each transaction. On the financial front, Block Chain will help make annual savings to the tune of INR 90 crores. The calculation of annual savings is as follows:

Per Capita Income of India: INR 142,719 ⁴

Working Hours per annum: 300 (Working Days) * 8 (Hours per day) = 2,400

Per Capita Income per hour: 142,719/2,400 = INR 59.47

Average number of hours saved per Claim through Block Chain: 4

Savings per Claim: 59.47 * 4 = INR 237.88

Number of Claims admitted with Insurance companies through TPA in entire year: 47,47,370

Total Annual Savings (80% Claims): 47,47,370 * 237.88 * .80 = INR 90 crores (approx.)

Insurance Companies all over the world embraces Blockchain-

S.NO	Company	Suggestion	Reference
1	Forbes	Article on global insurance companies moving towards Blockchain	https://www.forbes.com/sites/michaeldelcastillo/2018/07/03/big-blockchain-the-50-largest-public-companies-exploring-blockchain/#1bfb83b32b5b
2	AIA Group, Hong Kong	Blockchain supported platform will provide faster service with increased security and transparency	https://www.aia.com.hk/en/about-aia/media-centre/press-releases/2017/aia-press-release-20171114.html
3	Allianz Global Corporate & Speciality	Faster processing and removal of intermediaries	https://www.forbes.com/sites/tomgroenfeldt/2017/11/14/allianz-prototypes-blockchain-for-global-self-insurance-client/#bba122c78e63
4	People's Insurance Company of China	Data integrity, enhanced data management and efficient data processing	https://www.prnewswire.com/news-releases/peoples-insurance-company-of-china-picc-one-of-the-largest-insurers-globally-with-126-billion-total-assets-is-opting-to-embrace-blockchain-technology-with-the-help-of-dnv-gl-and-vechain-300705596.html
5	www.medium.com	Top Funded Blockchain Insurance projects	https://medium.com/blockdata/15-blockchain-projects-tackling-the-insurance-industry-1806fa1adcc3

CONFLICT OF INTEREST

This study is an exploratory research based upon secondary data therefore conflict of interest is hard to find out. But since Blockchain is a new revolutionary concept, its application can be extended to other socio-economic variables as well. At the moment there were hardly any applications in use involving this concept.

SOURCE OF FUNDING – Not required.

ETHICAL CLEARANCE

As secondary data has been used for the research, available on public domain, therefore ethical clearance is not required. However references required for the data have been mentioned in the study.

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CLUSTER DEVELOPMENT OF MSME SECTOR IN INDIA: AN INTER-STATE ANALYSIS

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ABSTRACT

This paper examines inter-state variation in the cluster development of MSME sector in India. The inter-state variations in the parameters of cluster development (namely Net Working Enterprise, Employment, Original Value of Plant & Machinery, Market value of Fixed Assets and Gross output) are conceptualized by constructing a comprehensive Index of Cluster Development. Empirical evidences suggest that southern, western, and northwestern and some northern states scores above the average score of all the states. On the other hand, eastern, central and extreme northern states (like Jammu and Kashmir) are lagged behind in the performance of overall development of MSME clusters. It is therefore predicted that an inclusive cluster development initiatives across all regions would strengthen the process of MSME cluster development in India.

Keywords: MSME, Cluster, Net Working Enterprise, Employment, Original Value of Plant & Machinery, Market value of Fixed Assets, Gross output, India.

INTRODUCTION

Micro, Small and Medium enterprises (MSME) sector plays an important role in ensuring

equitable regional development and economic growth worldwide. However, it is one of the untapped high growth sectors in India. This labour intensive sector can reduce the regional imbalances through higher income and employment generation with lower amount of investment (Sen and Salim, 2016). Thus it is considered as a priority to develop a regional economic development through less amount of investment in those areas where large scale of input is not available.

Individually, MSMEs are unable to meet the large production need, homogenous standards, and regular supply to capture market opportunities. Narrow profit margin and fierce competition blocks their investment in innovation of products. Empirical evidence shows that research and development is concentrated in large firms only (Longhi & Davide, 2000). Clustering of similar or related firms helps in generating localized external economies at lower the cost for producers. Such advantages include a pool of specialized workers, easy to specialized input suppliers & services, and quick dissemination of knowledge. In addition to external economies, there is often a conscious need to pursue joint action. The uniform growth and distribution of the sector

not only ensures prevalence of self-employment but also ensures maximum utilization of both human and material resources.

However, very few academic research works (in addition to government reports) are found on Indian clusters in the existing literature. Some of the major works on clusters in the form of doctoral thesis are done by Santhakumar (2014), Bindu (2012), Mapdar (2011). It is evident that two out of three doctoral theses are on handloom sector. Thus, a majority sector of Industrial clusters in India is untouched in the literature. Furthermore, no such comprehensive attempt has been made so far to get an overview of the inter-state variation in cluster development in India. Thus, there is

a need to understand the concept of Industrial Cluster in all its dimensions and its role in the development of MSMEs. In this backdrop, this paper endeavour to address this gap of research. Specifically, this paper aims to draw an overview on the inter-state variation in the cluster development in India. For the purpose, database of 4th MSME Census on cluster is utilized.

METHODOLOGY

To consider an overall cluster development across Indian states, an Index of Cluster Development (ICD) is constructed by considering five selected dimensions (table 1).

Table1: List of Variables for Constructing ICD

Indicators	Description	Proportional Measure
Share of Working Enterprise	Share of working enterprises in MSME within cluster as a proportion of share of networking enterprise in registered MSME sector.	$D1=C/D$ Where C indicates ratio of number of working enterprise in a cluster of the state to total number of working enterprises in MSMEs cluster and D indicates ratio of number of working enterprise in a state to total number of working enterprises in registered MSME Sector.
Share of Employment	Share of employment generation in MSME within cluster as a proportion of share of employment generation in registered MSME sector.	$D2=E/F$ Where E indicates ratio of employment in a state to total employment generated by MSMEs within cluster and F indicates ratio of employment in a state to total employment generated by registered MSME Sector.

Share of Plant & Machinery	Share of original value of plant and machinery in MSME within cluster as a proportion of share of of plant and machinery in registered MSME sector.	$D3=G/H$ Where G indicates ratio of original value of plant and machinery in a state to total value of plant and machinery in MSMEs within cluster and H indicates ratio of value of plant and machinery of the state to total value of plant and machinery in registered MSME Sector.
Share of Fixed Asset	Share of market value of fixed Asset in MSME within cluster as a proportion of share of market value of fixed asset in registered MSME sector.	$D4=I/J$ Where I indicates ratio of market value of fixed asset of the state to total market value of fixed asset in MSMEs within cluster and J indicates ratio of market value of fixed asset of the state to total market value of fixed asset in registered MSME Sector.
Share of Gross output	Share of gross output in MSME within cluster as a proportion of share of gross output in registered MSME sector.	$D5=K/L$ Where K indicates ratio of gross output of the state to total gross output in MSMEs within cluster and L indicates ratio of gross output of the state to total gross output in registered MSME Sector.

A comprehensive Index of Cluster Development (ICD) is derived by adding all five selected dimensions, i.e. $ICD = \sum_{i=1}^5 D_i$, where D_i is i th dimension of cluster development ($i = 1, 2, 3, 4, 5$).

ANALYSIS OF INTER-STATE VARIATION OF CLUSTER DEVELOPMENT IN INDIA

State-wise distribution of the 2443 clusters in the indicators of number of working units, employment, and fixed assets, investment in plant & machinery and gross output is documented in 4th MSME Census report. The share of clusters in total number of MSME units is 45.92 %, in total employment is 34.85%, in original value of plant & machinery is 36.12 %, in total market value of fixed assets is 33.64 % and in total gross output is 19.01 %.

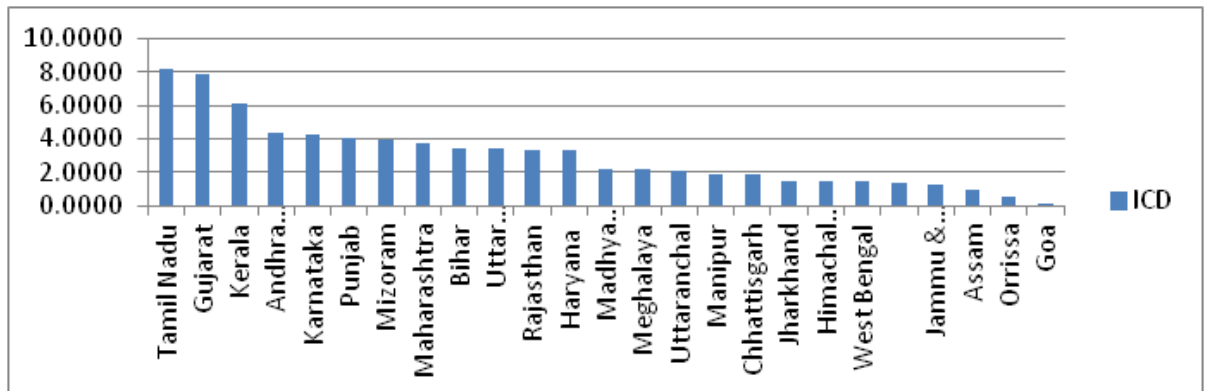
An analysis of individual dimensions suggest that MSME clusters in Tamil Nadu, Gujarat and

Kerala perform consistently well in achieving higher working capital, employment and gross output. Enterprises in the clusters are also leveraged in the investment of fixed assets, plant & machinery in those states. On the other hand, states like West Bengal, Jammu Kashmir, Assam, and Orissa records a lowest gross output, even though MSME clusters in those states experiences higher investment in plant & machinery and fixed assets. This finding reveals a lower level of technical inefficiencies in the working enterprises of these states. Working clusters in Andaman & Nicobar and Goa are negligible in numbers and thereby the performance of these states in the selected indicators is not comparable with other states of India.

Table 2: Ranking of the Indian States in the Index of Cluster Development (ICD)

States	Working Enterprises Share (D1) (Rank)	Employment share (D2) (Rank)	Plant & Machinery share (D3) (Rank)	Fixed Assets share (D4) (Rank)	Gross Output share (D5) (Rank)	ICD
Tamil Nadu	1.414 (1)	1.606 (1)	1.486 (1)	1.493 (2)	2.211 (2)	8.211 (1)
Gujarat	1.213 (2)	1.375 (3)	1.389 (2)	1.613 (1)	2.279 (1)	7.870 (2)
Kerala	1.209 (3)	1.443 (2)	0.944 (3)	1.144 (3)	1.377 (5)	6.118 (3)
Andhra Pradesh	0.710 (12)	0.712 (12)	0.777 (5)	0.753 (5)	1.457 (4)	4.408 (4)
Karnataka	1.048 (5)	1.036 (4)	0.671 (8)	0.573 (7)	0.949 (8)	4.277 (5)
Punjab	0.764 (10)	0.919 (6)	0.679 (7)	0.571 (8)	1.164 (6)	4.097 (6)
Mizoram	0.582 (16)	0.756 (9)	0.722 (6)	0.476 (12)	1.461 (3)	3.997 (7)
Maharashtra	0.699 (13)	0.754 (10)	0.663 (9)	0.649 (6)	0.925 (9)	3.690 (8)
Bihar	0.691 (14)	0.837 (7)	0.474 (11)	1.027 (4)	0.446 (13)	3.475 (9)
Uttar Pradesh	0.990 (7)	0.923 (5)	0.404 (12)	0.463 (13)	0.615 (11)	3.395 (10)
Rajasthan	0.551 (17)	0.683 (13)	0.817 (4)	0.560 (9)	0.765 (10)	3.377 (11)
Haryana	0.522 (18)	0.714 (11)	0.617 (10)	0.490 (11)	0.965 (7)	3.308 (12)
Madhya Pradesh	1.131 (4)	0.811 (8)	0.122 (18)	0.077 (19)	0.095 (22)	2.237 (13)
Meghalaya	0.718 (11)	0.443 (18)	0.354 (13)	0.274 (14)	0.430 (14)	2.219 (14)
Uttaranchal	0.910 (8)	0.633 (15)	0.186 (17)	0.155 (18)	0.251 (19)	2.135 (15)
Manipur	0.422 (19)	0.422 (19)	0.214 (16)	0.270 (15)	0.539 (12)	1.927 (16)
Chhattisgarh	0.636 (14)	0.636 (14)	0.118 (19)	0.050 (21)	0.061 (23)	1.909 (17)
Jharkhand	0.486 (17)	0.486 (17)	0.113 (20)	0.045 (22)	0.245 (20)	1.484 (18)
Himachal Pradesh	0.302 (20)	0.302 (20)	0.090 (21)	0.064 (20)	0.115 (21)	1.477 (19)
West Bengal	0.273 (21)	0.273 (21)	0.248 (14)	0.240 (17)	0.278 (18)	1.439 (20)
Andaman & Nicobar	0.503 (16)	0.503 (16)	0.230 (15)	0.242 (16)	0.351 (16)	1.326 (21)
Jammu & Kashmir	0.125 (24)	0.125 (24)	0.039 (24)	0.537 (10)	0.314 (17)	1.303 (22)
Assam	0.134 (23)	0.134 (23)	0.060 (23)	0.023 (24)	0.385 (15)	0.928 (23)
Orissa	0.146 (22)	0.146 (22)	0.082 (22)	0.041 (23)	0.058 (24)	0.547 (24)
Goa	0.000 (25)	0.000 (25)	0.010 (25)	0.008 (25)	0.013 (25)	0.031 (25)

Source: Author's calculation based on the 4th All India Census of MSME 2006-2007

Figure 1: Index of Cluster Development

Index of Cluster Development (ICD) provides aggregative information of the achievement of Indian states in their five dimensions (table 2). Associated ranking of the states suggest that Tamil Nadu, Gujarat, Kerala, Andhra Pradesh, Karnataka and Punjab secure 1st, 2nd, 3rd, 4th, 5th and 6th rank respectively. On the other hand, Jammu & Kashmir, Assam, Orissa and Goa placed in 22th, 23th, 24th, and 25th rank respectively. Performance of these states is consistently low in all the dimensions. Tamil Nadu, Gujarat, Kerala, Andhra Pradesh, Karnataka, Punjab, and Mizoram have successfully implemented the concept of clusters in the development of MSMEs in their states. Sikkim, Arunachal Pradesh, Nagaland, Tripura and other UTs (Chandigarh, Delhi, Daman & Diu, Dadra & Nagar Haveli, Lakshadweep and Pondicherry) are lagging behind in implementing cluster development approach.

CONCLUSION

This paper examines inter-state variation in the development of clusters in India. Cluster Development is a strategic initiative

to enhancing the productivity, capacity, and competitiveness of the MSMEs in the economy. It is observed that there is a wide inter-state variation in the level of cluster development in India. A comprehensive index of cluster development (ICD) is developed to portray a composite picture of the cluster development across Indian states. It is suggested that the performance of the states (Tamil Nadu, Gujarat, Kerala) are somewhat satisfactorily in the development of MSME clusters, while states like Orissa, Goa are at the lower stratum in this development process. The southern region is leading in the cluster development programme, followed by western, north-western, central, northern and eastern regions. Majority of the eastern states lie below the national average in developing MSME clusters. It is thus desirable to create conditions for enhancing the cluster development programme especially in the low ranking states like Goa, Orissa, Assam so as to reduce the regional imbalances. It is predicted that an inclusive cluster development initiatives across all regions would strengthen the process of MSME cluster development in India.

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SHAREHOLDERS' VALUE CREATION IN THE SUN PHARMA-RANBAXY MERGER: AN EVENT STUDY

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ABSTRACT

Mergers and Acquisitions have been the area of strategic focus for many corporate houses since the last two decades. It is now a global inorganic growth strategy to serve a variety of firm specific objectives like accessing new markets, foreign strategic assets, trade and supporting infrastructure and shareholder's value creation. The pharmaceutical industry in India witnessed one of the biggest mergers in its history when Sun Pharma took over Ranbaxy Laboratories. The merger failed to create value for the shareholders of Sun Pharma and considerable amount of literature has corroborated the fact. The present study has attempted to gather statistical evidence to prove the fact of such failure to create value for the shareholders of Sun Pharma in an objective manner. Seven valuation ratios have been considered to measure the value creation by the merger. The results before and after the merger have been analysed for the purpose by way of an event study. The study has been based on secondary data collected for a ten-year window from the annual reports of both Sun Pharma and Ranbaxy laboratories as well as from Ace Equity © data product. This

study has objectively proved that the acquiring firm was not able to create enough wealth for shareholders post acquisition.

Keywords: Sun Pharma, Ranbaxy Laboratories, Value Creation, Valuation Ratio, Event Study

INTRODUCTIONS

The corporate sector in India has seen a considerable growth of mergers and acquisitions since the 1990's & it's a common business strategy today for Indian corporate houses. The two main objectives behind any Merger & Acquisition (M&A) transaction, for corporate houses have been to improve revenues & profitability and faster growth in scale and quicker time to market. M&A rank among the most important decisions about the allocation of corporate wealth.

Sun Pharmaceutical Industries Limited is an Indian multinational pharmaceutical company headquartered in Mumbai, Maharashtra that manufactures and sells pharmaceutical formulations and active pharmaceutical ingredients (APIs) primarily in India and the United States. The company offers formulations in various therapeutic areas, such as cardiology,

psychiatry, neurology, gastroenterology and diabetology. It was established in 1983 in Vapi, Gujarat with five products to treat psychiatry ailments. The 2014 acquisition of Ranbaxy has made the company the largest pharma company in India, the largest Indian pharma company in US, and the 5th largest specialty generic company globally. Over 72% of Sun Pharma sales are from markets outside India, primarily in States. US is the single largest market, accounting for about 50% turnover; in all, formulations or finished dosage forms, account for 93% of the turnover. Currently Sun Pharma is the second largest and the most profitable pharmaceutical company in India, as well as the largest pharmaceutical company by market capitalisation on the Indian exchanges. On 6 April 2014, Sun Pharma announced that it would acquire 100% of Ranbaxy Laboratories Ltd, in an all-stock transaction, valued at \$4 billion. Japan's Daiichi Sankyo held 63.4% stake in Ranbaxy. After this acquisition, Sun Pharma has become the largest pharmaceutical company in India, the largest Indian Pharma company in US, and the 5th largest generic company worldwide.

Both Ranbaxy and Sun Pharma are established names in the pharma industry worldwide and have operations in a number of countries. They also complement each other in their areas of expertise and efficiency, both functionally and geographically. While Sun Pharma is a major global specialty pharmaceutical company with expertise in complex and niche therapy areas and a proven record of turning around its acquisitions, Ranbaxy had a strong global footprint and presence in the generics segment. Shareholder value is the value delivered to shareholders because of management's ability

to grow sales, earnings and free cash flow over time. If this value is created over the long term, the share price increases and the company can pay larger cash dividends to shareholders. This study is an attempt to provide statistical evidence of the failure to create shareholder value to Sur Pharma.

OBJECTIVES AND SCOPE OF THE STUDY

The objective of this study is to have a statistical proof of the established fact that the merger under consideration was not able to create value for the shareholders.

The present study attempts to examine the short run as well as long run impact of Sun Pharma-Ranbaxy merger in India. This study has used only a few selected financial ratios for a 10-Year window to ascertain value creation or otherwise due to the merger and also to test the statistical significance thereof.

SURVEY OF LITERATURE

Many companies have grown as big empires through mergers and acquisitions programs. With growing size of M&A activity in India there is need to study whether growth achieved through merger and acquisition route is profitable or otherwise. In most of the previous studies the evidence show that target companies experience positive gains around merger announcement and there is negative impact of mergers on acquiring companies. The studies during recent times have more focus on long run performance of acquiring firms.

Hitt et al (2012) conducted a review of the extant empirical research on M&A performance over the last 25 years (1983–2008). The research suggests that acquiring firms create little or no value.

Reasons for these outcomes include an inability to create synergy, paying too high a premium, selecting inappropriate targets, and ineffective integration processes, among others. However, careful selection of targets and effectively implemented acquisitions can achieve synergy and create value.

Syalet al (2016) conducted a study which dealt with the objective of reviewing the empirical literature related to various motives behind domestic as well as cross border M&A's and also to investigate that whether these deals are resulted into value creation for the shareholder of acquirer or target firms with various M&A deal characteristics. The two set of hypothesis in the theories of value creation by Mergers & acquisitions were two pronged i.e. Value maximizing Hypothesis and Non Value Maximizing Hypothesis. The former suggested that acquisitions were motivated by maximizing the value of firm and whereas latter proposed that managers of bidding firms embarked on acquisitions to maximize their own utility at the expense of stockholders.

Bild et al (2001) developed and empirically tested a new methodology for evaluating the financial performance of takeovers. The existing accounting and event study methodologies did not adequately address the key issue of whether takeovers are a positive net present value investment for the acquiring company. Their methodology attempted this by employing the residual income approach to valuation and comparing the present value of the acquirer's future earnings before the acquisition, with those that actually resulted following takeover. In contrast to existing methodologies, they had explicitly taken into account of the cost of the acquisition, the acquirers cost of capital, and

the earnings which were created beyond the sample period. The methodology was used for evaluating a comprehensive sample of U.K. acquisitions completed during 1985-96. Using the traditional accounting method, it was found that acquisitions resulted in a significant improvement in profitability. However, the residual income approach revealed that on average, acquisitions destroyed roughly 30 percent of the acquirer's pre-acquisition value. Brage et al (2007) had outlined that in 2007, M&A volume reached an unprecedented value of \$4,500 billion globally. Previous studies showed that approximately 60-80 percent of all M&As failed to create value. As a result, much effort had been put into investigating sources of value creation in M&A contexts. Many studies singled out firm relatedness as an important factor, i.e. the extent to which merging firms share similarities. This study aimed to extend previous research on firm relatedness by introducing the role of intellectual capital in value creation processes pertaining to M&A activity. The study theorized that through the ability to pool two sets of intellectual capital with divergent configurations, unrelated M&As should be expected to create greater value than related ones. This was tested by calculating pre- and post-consummation values of intellectual capital for a sample of 15 related and 15 unrelated M&As. Cumulative abnormal returns were also calculated as a measure of each deals' value creation potential according to market expectations. The findings of the study suggested that the unrelated M&As consistently seemed to outperform related ones in terms of gains to the value of intellectual capital and in terms of market expectations. However, the statistical significance of the findings was insufficient for

valid conclusions to be drawn. It was argued that further research should be made in order to investigate for statistical significance.

Vinogradova (2014) in her Ph.D. thesis paper identified the key factors that influenced announcement effects of M&As and evaluated the key value drivers that impacted performance of the acquiring companies and their value creation for the shareholders in the strategic acquisitions completed between 2000 and 2010. Using event-study method and comparative statistics with mean-difference tests, seven variables were identified and tested on their influence on transaction outcome. Besides purely empirical results, the paper took into consideration the pre-event operating performance of the acquirers and their strategic rationale for the acquisition, analysing how it impacted the outcome. The examples of value-creating and a value-destroying acquisitions helped to understand the strategies behind their success or failure. The companies having strong positive NOPAT performance focused on pursuing the strategic acquisitions for growth in order to be able to sustain their high profit margins and their competitive advantage over time. The companies with negative NOPAT performance focused on improving it. Their decision to pursue an acquisition in order to reduce costs or add additional assets was of purely short-term pecuniary interest. Therefore, these acquisitions were called financial acquisitions as their primary goal was resource re-allocation and they did not create additional sustainable value for the shareholders.

Sharma et al (2016) had outlined in the case study of Tata and Chorus merger that mergers and acquisitions were undertaken by companies to achieve certain strategic and financial objectives. They involved the bringing together of the two

organizations with often disparate corporate personalities, cultures and value systems. The analysis was done on the basis of primary and secondary data available and with the help of ratio analysis and paired t-test for comparison. 5 ratios have been used for this purpose. The ratios used are earning per Share, Profit after Tax, Current Ratio, Debtors Turnover ratio, Return on Net Worth. The results showed that there was no significant change in the short run but the merger had a long term effect on the company.

The survey of literature revealed that various ratios relating to liquidity, profitability and turnover activities had been considered for post merger corporate valuation. The said ratios have been used as indicators for value creation of companies. However different valuation ratios may be computed for companies which are better reflection of company value creation. Literature on using valuation ratios for assessing value creation by M&As were found to be scarce.

Hence the current study has used valuation ratios to have a direct assessment of the post-merger value creation in Sun Pharma – Ranbaxy merger and to check statistically the fact that no significant value has been created due to the merger.

METHODOLOGY OF THE STUDY

Seven valuation ratios have been considered in the current study to assess the value creation in post merger scenario. The ratios used are price to earnings ratio (P/E), price to book value ratio (P/B), enterprise value to net sales ratio (EV/NET SALES), enterprise value to earnings before interest and depreciation and amortisation ratio (EV/EBITDA), enterprise value to earnings before interest and taxes ratio (EV/EBIT), enterprise value to capital employed ratio (EV/CE), market capitalisation to sales

ratio (M CAP/SALES). The results before and after the merger have been analysed. Paired t-test has performed on these ratios. To check whether result as per mean and median is same, both t-test and Wilcoxon test have been performed. The following hypotheses have been framed for the t-test for each of the valuation ratios considered:

H0= There is no significant difference in the mean ratio, before and after the merger.

H1= There is a significant difference in the mean ratio, before and after the merger.

The following hypotheses have been framed for the Wilcoxon test for each of the valuation ratios considered:

H0= There is no significant difference in the median ratio, before and after the merger.

H1= There is a significant difference in the median ratio, before and after the merger.

All the hypotheses have tested at 5% level of significance.

Co-relation test has also been performed which is an indicative test to infer whether the pre and post merger company financials are related or otherwise.

The data used in this study have been collected from Ace Equity Data product and is thus entirely secondary in nature.

The statistical analysis were carried out on SPSS (version 23) platform.

The study considered a 10-year window i.e. from year ended 31st March 2010 to year ended 31st March 2014 as the pre-merger period and from year ended 31st March 2015 to year ended 31st March 2019 as the post merger period.

FINDINGS OF THE STUDY

The valuation ratios for the 10-year window are appended below:

Table 1: Valuation Ratios

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Adjusted PE	23.69	43.38	46.64	37.8	28.35	22.19	25.15	27.43	12.67	17.15
Price/Book Value	4.5	5.98	8.28	6.41	5.65	4.82	4.82	4.73	3.27	5.11
EV / NET SALES	5.1	6.85	7.66	7.07	7.16	6.97	7.68	9.17	5.04	7.27
EV/EBITDA	14.91	21.84	24.92	15.06	15.32	15.22	18.97	23.33	10.37	14.32
EV / EBIT	16.9	27.14	30.04	24.59	18.55	16.52	20.81	25.85	11.02	15.18
EV / CE	2.71	3.68	4.46	4.03	4.12	3.54	3.7	4.14	2.67	4.09
Market Cap/ Sales	5.27	7.02	7.73	7.38	7.5	7.35	7.99	9.25	5.39	7.6

Source: Annual reports of the selected companies obtained by Ace Equity © data product)

The results of the t-test and Wilcoxon test for each of the valuation ratios are appended below.

Adjusted Price to earnings ratio (P/E)

Situation	Mean
Pre Merger	35.9720
Post Merger	20.9180

Analysis of T – Test and WILCOXON test:-

	Based on t – test	Based on Wilcoxon median test	Decision
p-value	0.030	0.043	Reject Null hypothesis

The calculated p value of T test is .030 and Wilcoxon test is .043 (at 5% level of significance). Since the calculated p values are less than 0.05, the Null Hypothesis is rejected.

Price/Book Value

Situation	Mean
Pre – merger	6.1640
Post- merger	4.5500
Correlation coefficient	- 0.096

Analysis of T – Test and WILCOXON test:-

	Based on t – test	Based on Wilcoxon median test	Decision
p-value	0.090	0.080	Retain Null hypothesis

The calculated p value of T test is .090 and Wilcoxon test is .080 (at 5% level of significance). Since the calculated p values are more than 0.05, the Null Hypothesis is accepted.

EV/NET SALES

Situation	Mean
Pre – merger	6.7680
Post- merger	7.2260
Correlation coefficient	0.261

Analysis of T – Test and WILCOXON test:-

	Based on t – test	Based on Wilcoxon median test	Decision
p-value	0.545	0.500	Retain the Null hypothesis

The calculated p value of T test is .545 and Wilcoxon test is .500 (at 5% level of significance). Since the calculated p values are more than 0.05, the Null Hypothesis is accepted.

EV/EBITDA

Situation	Mean
Pre – merger	18.4100
Post- merger	16.4420
Correlation coefficient	0.291

Analysis of t – Test and WILCOXON test:-

	Based on t – test	Based on Wilcoxon median test	Decision
p-value	0.484	0.345	Retain the Null hypothesis

The calculated p value of T test is .484 and Wilcoxon test is .345 (at 5% level of significance). Since the calculated p values are more than 0.05, the Null Hypothesis is accepted.

EV/EBIT

Situation	MEAN
Pre – merger	23.4440
Post- merger	17.8760
Correlation coefficient	0.433

Analysis of t – Test and WILCOXON test:-

	Based on t – test	Based on Wilcoxon median test	Decision
p-value	0.106	0.043	Retain the Null Hypothesis for t-test but reject it for Wilcoxon test

The calculated p value of T test is .106 and Wilcoxon test is .043 (at 5% level of significance). Though the median test has confirmed the value less than .05 but due to marginally less value it is construed that it is almost equal to .05 .So, the Null Hypothesis is accepted

EV/CE

Situation	MEAN
Pre – merger	3.8000
Post- merger	3.6280
Correlation coefficient	- 0.039

Analysis of t – Test and WILCOXON test:-

	Based on t – test	Based on Wilcoxon median test	Decision
p-value	0.695	0.500	Retain the Null hypothesis

The calculated p value of t- test is .695 and Wilcoxon test is .500 (at 5% level of significance). Since the calculated p values are more than or equal to 0.05, the Null Hypothesis is accepted.

M CAP / SALES

Situation	MEAN
Pre – merger	6.9800
Post- merger	7.5160
Correlation coefficient	0.213

Analysis of t – Test and WILCOXON test:-

	Based on t – test	Based on Wilcoxon median test	Decision
p-value	0.477	0.500	Retain the Null hypothesis

The calculated p value of T test is .477 and Wilcoxon test is .500 (at 5% level of significance). Since the calculated p values are more than 0.05, the Null Hypothesis is accepted.

DISCUSSION

The comparison of pre-merger and post-merger performance ratios shows that in case of price to book value, EV/Net Sales ratio, EV/EBITDA ratio, EV/EBIT ratio, EV/CE ratio and Market Cap to Sales ratio there was no significant difference between the pre-merger and post-merger performance ratios. This

has been validated by the paired t- statistics at 5% level of significance. However, in case of adjusted price to earnings ratio, there is significant fall from the pre-merger to the post-merger ratios. Positive correlation testifies to the fact regarding the interlinkage between pre and post-merger results. While negative ratios denies such linkage.

One possible reason for the failure to reject the null hypotheses could be the low number of observations considered for the event study.

Sun Pharma had followed a strategy of acquiring poorly performing companies and turning them around. Hence, the success of the deal depended on how quickly Sun Pharma was able to resolve the regulatory issues of Ranbaxy, improve the operating margins of Ranbaxy and achieve the synergies. Given the large diversified operations of Ranbaxy and potential synergy benefits, the transaction seemed to be more value accretive for Sun Pharma shareholders.

The company bought distressed assets across the globe and turned them around to not only add to its books but also its product pipeline and regions. But as it turned out later, Sun Pharma underestimated problems in case of this latest acquisition both in terms of cost of compliance and time.

The deal had reaped the benefit in the market price as Sun Pharma stock price after the date of announcement of merger with Ranbaxy till the record the date of merger. However, subsequent fall therefrom resulted from the hit on profit for F Y 2015-16 which eroded the gains which were seen as being due to the merger for the shareholders of Sun Pharma. Post-merger, the stock was trading at the normal return of Sun Pharma which had been yielded in the last two previous years.

CONCLUSION

Mergers have been the prime reason by which companies around the world have been growing. The inorganic route has been adopted by companies forced by immense competition, need to enter new markets, saturation in domestic

markets, thrust to grow big and maximize profits for shareholders. In the changing market scenario it has become very important for firms to maximise wealth for shareholders.

This study shows that the acquiring firm was not able to create enough wealth for shareholders post acquisition.

One of the key objectives behind the merger was to expand Sun Pharma's presence in the US market through leveraging Ranbaxy's network. However, during the period, its contribution from the US market had come down by 33%. Intense competition in the US market leading to price war significantly reduced revenues for Sun Pharma. Post-merger, Sun Pharma got riddled into various legal and operational compliance defaults. Intense competition in the US market leading to price war significantly reduced revenues for Sun Pharma.

Sun Pharma's strategy of growth by becoming a global leader got hindered with many macro factors affecting the pharma sector with legal hurdles faced by the company leading to lacklustre performance. ROCE became considerably low which did not allow the company to repay debt. One of the key objectives behind this merger was to accelerate growth & create value for the stakeholders. However, Sun Pharma could not integrate Ranbaxy as it was busy in solving macro factors. Though the management claimed that the company had achieved the targeted synergy benefits amounting to \$ 300 million in FY 18, a huge cultural difference had resulted in an increase in the cost of operations, mainly employee costs, for Sun Pharma. In addition to this, corporate governance issues resulted in worsening the situation for Sun Pharma

SCOPE FOR FURTHER STUDIES

Mergers and acquisitions has been an emerging area for research in the field of finance. In India, the subject has not been well explored. Comparatively fewer studies relating to impact of mergers and acquisitions have been done in India. The relationship between pre-merger returns and post-merger returns may be examined further empirically. Earlier studies show that the

incidence of the Indian entrepreneurs acquiring the foreign company was not so common. But now the situation has changed and the acquisition of foreign companies by the Indian companies has been the latest trend. Studies may be carried out on identifying generic and sector-specific factors which have causal effect of value creation through M&As in India and the complex relation between them.

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EFFICIENCY OF INDIAN STOCK MARKET- A STUDY OF EXISTENCE OF ARBITRAGE GAINS THROUGH PUT CALL PARITY

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ABSTRACT

Put call parity is the no arbitrage condition which must hold true for an efficient financial market. The present study examines the Indian stock market efficiency by using different option contracts for about 400 observations during three consecutive months. Deviation in PCP model provides opportunity to earn abnormal profits to arbitrageur. Three different scenarios have been considered for testing the PCP model. Our result in all scenarios shows the mispricing in the Indian stock market. The empirical analysis provides the level of profit which can be made by arbitrageur. The findings show that Indian stock market as inefficient market.

Keywords: Put Call parity, Market efficiency, Arbitrage profit.

JEL Classification: G14

INTRODUCTIONS

Market efficiency is one of the important factors for the smooth functioning of the financial markets. It ensures that all information regarding price or stock is available in the market. Stock market efficiency implies that the share prices

adjust new information rapidly; reflecting the true prices (intrinsic value) and no trader can make abnormal profit with the presence of overvalued and undervalued stocks (Jones and Netter, 2008). Arbitrageurs always look for the inefficiency moment in the market, so that they can make huge amount of profits.

Strong financial market is always desired for all countries otherwise it will provide an opportunity to make profits using mispricing in the market. Large number of studies have been undertaken worldwide to test the efficiency of the various financial markets and resulted into mixed comments. Ibrahim A. Onour (2009) has applied many statistical tests on index of Saudi stock exchange and found that the prices are not following a random walk. Maria Rosa Borges (2008) reported a result of various tests like runs test, correlation test and variance ratio etc. applied on European stock markets (Germany, Spain, UK, France, Greece and Portugal) that the countries stock market are efficient and follow random walk. Cooray and Wickramasighe (2007) have examined the efficiency of South Asian regions (Bangladesh, India, Pakistan and Sri lanka) and reported a strong financial market except for Bangladesh. Azeez, B.A.

and Sulaiman, L.A. (2012) found that stock prices are reflecting all information in Nigerian stock exchange and holds efficient market. Many studies have reported that the various stock markets are not always efficient; there are some time durations when information is not adjusted by prices (Lim, Habibullah and Hinich, 2009), (Alajbeg et al, 2011), (Shiguang Ma and Michelle, 2001), (Subha, 2010). Efficiency has been examined using different methods such as ACF (Vulić, 2009) to find out correlation between current and lagged values of the same series to assess that correlation coefficients are significantly different from zero or not, which is the measure of market efficiency, run test (Sharma & Seth, 2011), (Gimba, 2012) to assess the randomness of the data which ensures that all values are occurring independently, Event study analysis (Brown & Warner, 1985) to identify the effect of particular event on stock prices, whether it is possible to forecast the stock returns due to any related announcements which leads to efficiency or inefficiency in the market, Black Scholes model (Bhattacharaya, 1980) used to find out the price of put and call options in an efficient market assuming no transaction cost and dividend and Put call parity (Vipul, 2008) to find the arbitrage possibilities. Among these models, Put call parity is one of the prominent model for investigating the cross- market efficiency (derivative contracts and underlying stock) because it does not involve any statistical

calculations and depends on any 'definite distributional assumptions' to test the stock market efficiency (Islam, Watanapalachaikul & Clark, 2005). PCP is based on simple equation which incorporates and is determined theoretically by diverse micro and macro variables affect the constituents of PCP equation such as stock price, interest rate and option premium.

PCP is the relationship between the European put and call option prices for the same share with same expiration date and same strike price (Stoll, 1969). According to PCP, buying a call and investing money at risk-free rate must be equal to buying a put and purchasing a share, keeping the expiration price and date same for the same share.

$$C + Ke^{-rT} = P + S_0$$

Where:

C= call option price

K= strike price (Expiration price)

r= risk free rate of return

T = time to maturity

P = put option price

S_0 = current share price

Ke^{-rT} = present value of the strike price

PCP is a no arbitrage relationship which states, no one can gain from the buying and selling in stock markets according this equation because value at expiration date (T) in different portfolios made out of PCP equation will be same.

VALUE AT EXPIRATION DATE

	$S_0 > K$	$S_0 < K$
Call + Cash	$(S_0 - K) + K = S_0$	$0 + K = K$
Put + Stock	$0 + S_0 = S_0$	$(K - S_0) + S_0 = K$

The relationship has been tested for various stock markets for example US stock market (Ackert and Tian, 2001), Italian market (Brunetti and Torricelli, 2005), London option market (Nisbet, 1991), German market (Mittnik and Rieken, 2000), Chicago board option exchange (Bhattacharya, 1983), French index (Capelle-Blanchard and Chaudhary, 2001) etc. and extended in many different directions covering the inclusion of dividend (Klemkosky and Resnick, 1980) and transaction cost (Merton, 1973).

India is an emerging economy which is attracting many investors in expectation of high returns. The present study attempts to investigate the arbitrage possibilities and test the put call parity relationship in Indian stock market between option prices and underlying stock.

DATA

The present study attempts to test the put call parity in the Indian stock market. For this, data have been taken from NSE for 140 companies. (NSE covers 98% of total stock derivative transactions). This test is applied on stock options covering the time span from September 2019 to November 2019. There is no bid and ask in the stock options, the prices reflecting in the computer system are the best buy and best sell prices and there are no chances that the prices displayed are not available to a trader as there is no marker maker. Following are the problems which need to be handled while taking the data.

1) Co-existence of data- For testing the PCP equation, the option prices and stock prices has to be observed at a same time. The availability

of high frequency prices will enable the testing more authentic. For testing the equation, the option prices and share prices were taken at exactly the same time. Capelle-Blanchard and Chaudhary (2001) have captured the data within one minute of the time frame.

2) Same expiry with same strikes- The PCP model holds only in the case of same maturity and same strike prices for call and put options. All observations used in testing are satisfying this condition.

3) Adjustment for dividend- If company pays dividend during the life of the option then PCP equation has to be adjusted. It is an expected dividend whose present value (value at the time of entering the contract) needs to be deducted from the share prices. First time Klemkosky and Resnick (1980) have extended the PCP model with dividend.

4) Risk-free rate – 91 day treasury bill rate for the months, September, October and November 2019 were taken from RBI which is to be used as discounting rate.

5) Transaction cost- It is the broker's commission paid at the time of buying and selling of share and option contract. Most of the literatures have taken transaction cost into consideration (Vipul, 2008), (Brunetti and Torricelli, 2005), (Kamara and Miller, 1995). There are many components like commissions, clearing fees and short selling costs which affect the transaction cost (Brunetti and Torricelli, 2005) and it is very difficult to find the exact transaction cost because it varies due to strategy, time, size of the contract and type of the investor. To deal with this

problem we have divided investors into two parts: Small investor (who trade with fewer amounts) and Big investor (who trade with large amount). Prevailing transaction charges were taken from the Indian share trading companies.

METHODOLOGY

In order to find out the arbitrage possibilities, two portfolios are made out of the PCP equation.

$$\text{Portfolio A } C + Ke^{-r}T - P - S_0 \geq 0$$

$$\text{Portfolio B } P + S_0 - C - Ke^{-r}T \geq 0$$

Riskless profit can be made by buying the under-priced portfolio and selling the over-priced portfolio. An arbitrageur will gain if left hand side of the equations are more than the zero, which shows the mispricing in the market.

To get the better results and arbitrage possibilities, the analysis is divided into three cases. Case X where PCP is tested in cost free market, case Y in which transaction is included for small investor and case Z where transaction cost is taken for big investor.

DATA ANALYSIS

The PCP is tested on Indian stock market to find out arbitrage possibilities and about 140 observations were taken from live market for consecutive three months.

Case X

This case assumes that there is no transaction cost for trading in the market.

$$\text{Portfolio A } C + Ke^{-r}T - P - (S_0 - D) \geq 0$$

$$\text{Portfolio B } P + (S_0 - D) - C - Ke^{-r}T \geq 0$$

THE BELOW TABLE SHOWS THE NUMBER OF PCP VIOLATIONS IN THE BOTH PORTFOLIOS.

Table 1: PCP Violations without Transaction Cost

Month	Portfolio A	Portfolio B
September	93(68.88%)	42 (31.11%)
October	51 (36.95%)	87 (63.04%)
November	74 (53.62%)	64 (46.37%)
Total Sample	218 (53.04%)	168 (46.95%)

The number of violations reported in the table for both portfolios are only for profit chances. Result shows that chances of profit from arbitrage possibilities using put call parity is more in portfolio A. Out of the all observations in total sample Portfolio A is profitable in 53% cases. The PCP violation is mostly in all observations but we cannot conclude that the Indian stock market is not efficient as we have not included the transaction cost in this case.

Using mispricing in the market, one can make large amount of profit. Table 2,3 & 4 shows the amount of profit made in both portfolios for the September, October and November.

Table 2: Descriptive Statistics of profits- September

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	1.97	41.92	0.0047	93	100	3.96	36.38	0.02	40	95.23
(50-100)	0	0	0	0	0	0	0	0	0	0
(100-150)	0	0	0	0		123.38	123.38	123.38	1	2.38
(150-200)	0	0	0	0	0	0	0	0	0	0
(200-250)	0	0	0	0	0	201.65	201.65	201.65	1	2.38
All	1.97	41.92	0.0047	93	100	11.51	201.65	0.02	42	100

Table 3: Descriptive Statistics of profits- October

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	1.14	22.04	0.05	49	96.07	3.95	36.93	0.01	84	96.56
(50-100)	0	0	0	0	0	62.89	68.55	57.23	2	2.29
(100-150)	0	0	0	0		122.38	122.38	122.38	1	1.15
(150-200)	0	0	0	0	0	0	0	0	0	0
(200-250)	0	0	0	0	0	0	0	0	0	0
All	10.17	240.58	0.05	51	100	6.66	122.38	0.01	87	100

Table 4: Descriptive Statistics of profits- November

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	1.74	23.16	0.01	74	100	3.79	47.06	0.01	62	96.78

(50-100)	0	0	0	0	0	0	0	0	0	0
(100-150)	0	0	0	0		0	0	0	0	0
(150-200)	0	0	0	0	0	0	0	0	0	0
(200-250)	0	0	0	0	0	0	0	0	0	0
More Than 300	0	0	0	0	0	554.65	779.21	330.09	2	3.22
All	1.74	23.16	0.01	74	100	21.00	779.21	0.01	64	100

The PCP violations resulted into profits for the arbitrageur, which is presented above in tables. Portfolio A has given average profit of ₹1.97, ₹1017 and ₹1.74 in the month of September, October and November respectively, whereas portfolio B shows the average profit ₹11.51, ₹6.66 and ₹21. So, portfolio B is more profitable than portfolio A. There are very few cases where profit is more than ₹150 and exceptional returns.

Case Y

This case includes the transaction cost for trading in the market. Transaction cost for small investor is taken in this case.

$$\text{Portfolio A } (C - TC^C) + Ke^{-rT} - (P - TC^P) - (S_0 - D - TC^S) \geq 0$$

$$\text{Portfolio B } (P - TC^P) + (S_0 - D - TC^S) - (C - TC^C) - Ke^{-rT} \geq 0$$

TC^C = transaction cost on call option

TC^P = transaction cost on put option

TC^S = transaction cost on shares

Chances of making profit through mispricing decrease in the presence of transaction cost.

Table 5: Shows the number of profit possibilities in both portfolios.

Month	Portfolio A	Portfolio B
September	115 (54.76%)	95 (45.24%)
October	82 (40.19%)	122 (59.81%)
November	103 (48.13%)	111 (51.87%)
Total Sample	300 (47.77%)	328 (52.23%)

The number of PCP violations with the presence of transaction cost is reported in above table. The possibilities of profit chances due to arbitrage opportunities are more in portfolio B.

Overall result shows that there are 52.23% profit possibilities in portfolio B. Transaction cost decreases the arbitrage possibilities from 53% to 47.7% for portfolio A and increases from 46.9% to 52.23% for portfolio B.

The level of profit made in both portfolios in this case is shown in the table 6, 7 & 8. The results of this case are not similar to previous case. With the presence of transaction cost, portfolio B turns more profitable. The average amount of profits is ₹7.34, ₹6.22 and ₹14.10 in three consecutive months for portfolio B. In the month of November, portfolio B has reported a maximum profit ₹807.30.

Table 6: Descriptive Statistics of profits- September

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	2.57	17.72	0.02	114	99.13	3.25	48.31	0.01	93	97.90
(50-100)	66.10	66.10	66.10	1	0.87	0	0	0	0	0
(100-150)	0	0	0	0		0	0	0	0	0
(150-200)	0	0	0	0	0	185.88	185.88	185.88	1	1.05
(200-250)	0	0	0	0	0	209.64	209.64	209.64	1	1.05
All	3.12	66.100	0.02	115	100	7.34	209.64	0.01	95	100

Table 7: Descriptive Statistics of profits- October

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	2.02	25.19	0.05	80	97.54	3.99	40.00	0.05	119	97.54
(50-100)	0	0	0	0	0	78.30	81.11	75.49	2	1.64
(100-150)	0	0	0	0		127.55	127.55	127.55	1	0.82
(150-200)	0	0	0	0	0	0	0	0	0	0
(200-250)	247.03	247.03	247.03	1	1.23	0	0	0	0	0
More Than 250	284.39	284.39	284.39	1	1.23	0	0	0	0	0
All	8.45	284.39	0.05	82	100	6.22	127.55	0.05	122	100

Table 8: Descriptive Statistics of profits- November

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	2.47	26.72	0.03	103	100	3.34	49.41	0.01	109	98.20
(50-100)	0	0	0	0	0	0	0	0	0	0
(100-150)	0	0	0	0		0	0	0	0	0
(150-200)	0	0	0	0	0	0	0	0	0	0
(200-250)	0	0	0	0	0	0	0	0	0	0
More Than 300	0	0	0	0	0	601.04	807.30	394.79	2	1.80
All	2.47	26.72	0.03	103	100	14.10	807.30	0.01	111	100

*The above tables reflect the level of violations in the PCP equation.

Case Z

This case includes the transaction cost for big investors. Commission payable on transactions varies with the investor type. Here transaction charges are very low for the big investor who deals with the large amount. Portfolios will remain same for this case as previous case. This case can be considered as more realistic case because this will give some actual mispricing chances. Similar to previous cases, the number of PCP violations reported in the table 9 below.

Table 9: PCP Violations with Transaction Cost (Big Investor)

Month	Portfolio A	Portfolio B
September	107 (62.57%)	64 (37.43%)
October	71 (39.44%)	109 (60.55%)
November	95 (50.26%)	94 (49.74%)
Total Sample	273 (50.55%)	267 (49.45%)

The number of violations is slightly same in both portfolios which are near to 50% in overall sample. Whereas in the month of September, portfolio A has reported 62.5% violations leading to profit chances. The profit made out of two portfolios is reported in the table 10, 11&12.

Table 10: Descriptive Statistics of profits- September

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	2.01	16.36	0.01	106	99.06	3.98	45.59	0.02	62	96.87
(50-100)	54.02	54.02	54.02	1	0.94	0	0	0	0	0
(100-150)	0	0	0	0		0	0	0	0	0
(150-200)	0	0	0	0	0	154.64	154.64	154.64	1	1.59
(200-250)	0	0	0	0	0	205.65	205.65	205.65	1	1.59
All	2.49	54.02	0.01	107	100	9.48	205.65	0.02	64	100

Table 11: Descriptive Statistics of profits- October

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	1.62	23.63	0.02	69	97.14	3.77	38.48	0.02	106	97.25
(50-100)	0	0	0	0	0	70.61	72.03	69.18	2	1.83
(100-150)	0	0	0	0		124.98	124.98	124.98	1	0.92
(150-200)	0	0	0	0	0	0	0	0	0	0
(200-250)	248.62	253.43	243.82	2	2.86	0	0	0	0	0
All	8.54	253.43	0.02	71	100	6.10	124.98	0.02	109	100

Table 12: Descriptive Statistics of profits- November

Portfolio A						Portfolio B				
	Mean	Max	Min.	Obs	%	Mean	Max	Min.	Obs	%
(0-50)	1.96	24.95	0.01	95	100	3.21	48.25	0.01	92	97.87

(50-100)	0	0	0	0	0	0	0	0	0	0
(100-150)	0	0	0	0		0	0	0	0	0
(150-200)	0	0	0	0	0	0	0	0	0	0
(200-250)	0	0	0	0	0	0	0	0	0	0
More Than 300	0	0	0	0	0	601.04	807.30	394.79	2	1.80
All	2.47	26.72	0.03	103	100	14.10	807.30	0.01	111	100

The amount of profit is more in portfolio B. The average amount of profit made is ₹9.48, ₹6.10 and ₹15.43 in September, October and November respectively for portfolio B.

CONCLUSIONS

A VaR model commonly expect a log-ordinary value dispersion process, and that the log return process follows an ordinary dissemination. In any case, genuine money related markets display a few.

This study have analysed the Indian market efficiency by using the Put Call parity model during the period from September 2019 to November 2019. The whole data set has divided into three different scenarios. First scenario has analysed the data without transaction cost, second scenario includes the transaction cost for small investors and third scenario includes the transaction cost for big investor. The findings of this study shows that the chances of profit from PCP violations are 53.05% in portfolio A (Long strategy) for the whole sample and for the portfolio B (Short strategy) is 46.95% in first scenario (Case X) where transaction cost is not taken into consideration. Average profit made is ₹1.97 in portfolio A whereas it is ₹11.51 in portfolio B in September. Above

all this, November data shows the maximum profit of ₹779.21 in portfolio B where average profit is ₹21.00. In second scenario (Case Y) where transaction cost is taken for the small investors given the average profit of ₹4.35 for portfolio A whereas in portfolio B it is ₹9.21 for all three months taken altogether. PCP violations are 52.23% in portfolio B which leads to profit chances. Case Z of this study in which we have taken transaction cost for the big investors has also shown the higher average profit in portfolio B (Short strategy) which is ₹10.28 and for the portfolio A it is ₹ 3.87 for all three months taken altogether. The level of profit in this case is higher than the Case Y because of less transaction cost. Transaction cost for big investor is exactly half of the small investor. The efficient market does not provide the chances for arbitrage possibility. From the overall results of all three consecutive months we can conclude that Indian stock market is not an efficient market. It means share prices and option prices are not adjusting the new information rapidly.

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ELECTRONIC WORD OF MOUTH AND ELOQUENCE: AN ANALYSIS OF REVIEWS IN HOSPITALITY SECTOR

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ABSTRACT

With the advent of internet and internet based media, electronic word of mouth has gained prominence in influencing consumer decision. An exploratory study using qualitative analysis has been conducted in the hospitality industry in order to understand the trends in the generation of electronic content in hotel reviews by customers. Two hundred positive and an equal number of negative reviews of a top brand hotel have been explored in the order of appearance in a popular accommodation website. The analysis indicated that customers are more eloquent in describing positive aspects, overall evaluations and positive overall evaluations than negative aspects, attribute based evaluations and negative overall evaluations. Negative evaluations are more based on specific attributes than overall evaluations. The adjectives and verbs used in describing a positive evaluation are found to be more compared to negative evaluation. The findings are at variance with some of the earlier studies. These findings are of practical relevance to hoteliers in focusing their marketing and operation efforts.

Keywords: Electronic word of mouth, hospitality, review, eloquence, social media

INTRODUCTIONS

Electronic word of mouth as a source of information has considerable significance to both marketer and consumer. It is a free and powerful source of information compared to other forms advertising since it is interpersonal communication. Chan and Ngai (2011) conceptualized WOM from an input-process-output (IPO) perspective.

Electronic word-of-mouth communication (e WOM) is defined as customer feedback on the internet regarding a product, service or a company which becomes available to a huge population (Hennig-Thurau et al., 2004). EWOM is more powerful than normal worm owing to the features of its wide reach and the fact that it remains on the internet forever and also it can be monitored (Manovich, 2009) E WOM can either positively or negatively influence people and their buying decisions. Negative feedback can be used to spot mistakes and rectify it.

LITERATURE REVIEW

Historic marketing researchers have established that personal influence plays an important role in consumer behaviour (Arndt, 1967).

Cha et al (2008) found that experience with social network sites is positively associated with internet purchase behaviour. The expansion of new media has increased the personal influence in marketing and unconventional marketing tools are becoming more effective and popular than traditional ones (Bilgihan et al., 2013). This in turn has led to customers' decision making and purchase intentions to be strongly affected by online reviews from various websites and blogs (King, Racherla and Bush, 2014).

Common elements between the traditional word-of-mouth and the electronic version are the creation of emotional link that needs to be established in order to guarantee the effectiveness of this media (Dobele, Toleman and Beverland, 2005). Both word of mouth and eWOM are informal, interpersonal communication with no commercial interest (Carl, 2006). In other words, e WOM applies the traditional word-of-mouth practices to the online environment with the advantage of passing the marketing message to a wider audience, creating the potential for exponential growth in the message's exposure and influence (Golan and Zaidner, 2008).

EWOM is any remark made by future, past or present customer regarding a product, service or brand on the internet. Litvin et al (2008) define e WOM as informal communication on the internet, targeting potential customers regarding the characteristics of particular goods and services. These statements tend to travel quicker because of their venue like internet, they are relatively permanent in nature and come at a minimal search cost to potential recipients. These features of eWOM are reinforced by Dellarocas (2003) along with added features like affordability, wider reach and difficulty to control. The effects of electronic word-of-mouth

(e WOM) have long captured the interests of brand marketers because they affect key performance indicators such as sales, customer value and loyalty consumer recommendations (Gruen, Osmonbekov and Czaplewski, 2006).

HOSPITALITY AND USE OF E WOM

Seekers of e WOM are interested in reducing risk, securing lower prices, and having easy access to information prior to purchase decisions (Goldsmith and Horowitz, 2006). Recommendation from others is given prime importance while making high risk purchases owing to the risk involved in it. Tourism and hospitality related services are considered high risk owing to its intangible nature and prospective guests appreciate recommendations from previous customers while making their selections (Litvin et al., 2008). In the hospitality industry, WOM recommendations are more influential since service production and consumption are inseparable (Grönroos, 2000).

The easiest way to reach to prior customer reviews is through the internet which is considered as the most reliable source of information by most travellers. A customer's exposure to online reviews increases his/her awareness of a hotel and amplifies his/her consideration of it (Vermeulen and Seegers, 2009). Positive contents in online reviews increase the number of hotel rooms booked and thereby improve hotel revenues. Social media plays an important role in affecting hotel guests' satisfaction, service process enhancement guests' purchase behaviour and hotel performance (Anderson, 2012).

E WOM can be used as a tool for advertising and revenue generation (Kirkpatrick, Roth and Ryan, 2005). The experience of customers would be enhanced during their stay in the hotel in order to increase the chance of them sharing their positive feedbacks. Negative product reviews have been shown to weigh more heavily on consumer minds than positive reviews (Park and Lee, 2009). Responses to negative reviews (complaints) play a role that is just as important as traditional remedies. The hotel can alleviate customer dissatisfaction or recover its service failure by fully taking advantage of response to negative reviews (Hoffman et al., 1995).

DEVELOPMENT OF HYPOTHESES

Positive and Negative Reviews

Positive and negative forms of WOM are frequently distinguished in the literature. Eloquence is defined as the number of times a definite number of words are repeated in expressing overall feelings or the number of times a particular word is repeated in expressing a particular feeling. Since people who post a comment on the internet are generally extremely satisfied or extremely unsatisfied it is important to check the eloquence in order to convert these reviews as a marketing tool. If it is found the positive reviews are having more eloquence it should be encouraged so as to become a good marketing tool and on the contrary if negative reviews are higher on eloquence, care must be given in giving adequate response. Hence it is important to check if there is any difference in eloquence between positive and negative evaluations.

H1: There is no significant difference in eloquence between positive and negative evaluations

Overall and Attribute Based Evaluations

A customer could judge a service either in its entirety or based on any particular attributes of the service. It is important to check the aspect which is given more importance by the customers while writing online reviews. It is important to analyse if reviews are based on overall attributes of the product and service or customers concentrate on particular aspect of the product or service in order to achieve maximum positive reviews. Therefore this study tests the following hypotheses:

H2: There is no significant difference in eloquence between overall positive evaluations and overall negative evaluations

H3: There is no significant difference in eloquence between attribute based positive evaluations and attribute based negative evaluations

H4: There is no significant difference in eloquence between overall evaluation and attribute based evaluation

Qualifiers

Qualifiers are adjectives or verbs used to describe products or services which represent overall or attribute based evaluations. They describe the qualities of the product or service by giving some information. For example, a customer may describe a stay as wonderful or horrible. These adjectives may be associated with either positive or negative evaluations. By improving or increasing the number of qualifiers associated with positive reviews organisations can increase positive impact on the reviewers. This study tests the difference in the number of qualifiers associated with positive and negative evaluation.

H5: There is no significant difference in the number of qualifiers used in describing positive and negative evaluations

METHODOLOGY

Two hundred positive and an equal number of negative reviews of a well known hotel in India have been extracted from a popular accommodation website in the order of their occurrence in the website. Word counts have been extracted using R software and a word cloud each has been prepared for both positive and negative reviews taking top repeated 25 words.

ANALYSIS AND RESULTS

The total number of words used for positive evaluations is 1211 where as the number of words used for negative evaluation was found to be only 805 confirming that customers are more eloquent in positive evaluations than negative. In general, the top 25 words used were found to have been repeated more number of times in positive evaluations than negative evaluations. For example while the word hotel has been repeated 151 times in positive evaluations, the same has been found repeated 102 times in negative evaluations. Similar is the case with the word stay. However, there are a few exceptions like the word room.

Table 1

A classification of words into overall, attribute, and qualifiers (adjectives and verbs) indicate that the number of overall words used is more in negative evaluations than positive evaluations while attribute related words were equal. It has been found that qualifiers like adjectives and verbs were used significantly more in positive evaluations than negative evaluations. In the case of overall evaluations and qualifiers it has been found the average number of repetitions

of words was higher in the case of positive evaluations while the repetitions in the case of attribute related words were found to be almost equal. This indicates that there are differences in number of words used as well as their repetitions between positive and negative evaluations except in the case of attributes.

Table 2

Word Cloud 1

Word Cloud 2

CONCLUSIONS

Customers in general are more eloquent in expressing positive evaluations than negative evaluations. While overall dimensions coming to the mind of customer is more in negative evaluations, attribute based dimensions coming to the mind of customer is almost equal for positive and negative evaluations. Eloquence was found to be more in the case of positive evaluations in the case of overall dimensions while the same is almost equal in the case of attributes. Both number of dimensions recalled and eloquence were more for positive evaluations in the case of qualifiers. This indicates that emotions are more strongly and elaborately expressed in the case of positive feelings. On the whole it is right to conclude that positive experiences are expressed more strongly and elaborately.

MANAGERIAL IMPLICATIONS

Since electronic word of mouth is a powerful tool for creating and enhancing customer feelings and resultant purchase related behaviour it is worthwhile for a hospitality firm or marketer

to invest effort and time in managing it well. It entails that hospitality firms should strive to create positive experiences since they create more positive word of mouth and at the same time

they should try to avoid negative experiences since they are perceived more elaborately. The firms should encourage reviews by satisfied customers than unsatisfied customers.

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EMPLOYEE PARTICIPATION IN DECISION MAKING AND EMPLOYEE JOB SATISFACTION: THE MODERATING ROLE OF EMOTIONAL INTELLIGENCE

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ABSTRACT

This research study investigated the relationship between employee participation in decision making, emotional intelligence and employee job satisfaction, and the extent to which emotional intelligence moderated the relationship between employee participation in decision making and employee job satisfaction. The study was conducted on 383 banking sector employees working in J&K, India. Results posited that employee participation in decision making and emotional intelligence had significantly positive influence on employee job satisfaction, with emotional intelligence having higher impact. Emotional intelligence also moderated the relationship between employee participation in decision making and employee job satisfaction. The study implications and limitations were discussed.

Keywords: Jammu & Kashmir, emotional intelligence, participation in decision making, employee job satisfaction.

INTRODUCTIONS

Employee job satisfaction has been linked to various management tactics, personal psyche, personal

outcomes and higher performance. Employees' job satisfaction has been operationalised as the likes or dislikes and/or feelings of an individual towards his/her job on the basis of his/her job experience(s) (Khan, Nawaz, Aleem, & Hamed, 2012). There is a considerable evidence that employees who participate in decision making of an organisation are highly satisfied (Goñi-Legaz, & Ollo-López, 2017). There is also evidence that employee job satisfaction is affected by emotional intelligence of employees. For example, higher emotional intelligence of employees results in higher employee job satisfaction (Wen, Huang, & Hou, 2019).

The concept of emotional intelligence (EI) is important for understanding the relationship between employee participation in decision making and employee job satisfaction. EI is the "ability to monitor feelings and emotions of one's own and others", to discriminate among them and to use this information for guiding one's thinking and emotions" (Huy, 1999). It embroils a rational appraisal of feelings and emotions that the individual and his/her organisation has on each other. The individual's perception of positive relationship results in a good fit between his/her and organisational feelings and emotions.

Though the literature confirms the relationship between employee participation in decision making and employee job satisfaction, yet there is paucity of research related to the potential direct or moderating influence of emotional intelligence on employee job satisfaction. So, this study attempted to investigate the association between employee participation in decision making and job satisfaction of banking personnel serving in J&K, India. It also examined whether emotional intelligence moderates the association between employee participation in decision making and employee job satisfaction, as well as evaluated the direct relationship between emotional intelligence and employee job satisfaction of banking personnel working in J&K, India.

LITERATURE REVIEW AND HYPOTHESES

Extensive literature survey lead to the formulation of study model. The proposed model of the study is based on three variables namely, employee participation in decision making, emotional intelligence and employee job satisfaction

EMPLOYEE PARTICIPATION IN DECISION MAKING & EMPLOYEE JOB SATISFACTION

Employee participation in decision making is a management practice that brings positive feeling among the employees towards their organisation/ employer (Elele, & Fields, 2010). The inclusion of employees in organisation's decision making enhances employee morale, job satisfaction and finally increases organisational productivity and performance. The linkage between employees' engagement in decision

making and their job contentment has been proposed in the prior studies. The organisations ensuring high participation of employees in decision making usually reap the fruits of high employee job contentment (Ornoy, 2010), effective decision making (Miller, & Monge, 1986), development of milieu of trust, high quality decisions (Cole, 1990; Filley, House, & Kerr, 1976), among others, which also develops capacity and capability of the greatest capital of an organisation, human resource (Scott-Ladd, Travaglione, & Marshall, 2006). For instance, the organisations endowing adequate participation to employees in decision making often experience highly satisfied employees (Goñi-Legaz, & Ollo-López, 2017). We propose the following hypothesis based on the extensive literature review:

Hypothesis1: Employee Participation in decision making positively influences employee job satisfaction.

EMOTIONAL INTELLIGENCE & EMPLOYEE JOB SATISFACTION

Emotional intelligence is the “ability to monitor feelings and emotions of one's own and others’, to discriminate among them and to use this information for guiding one's thinking and emotions” (Huy, 1999), “the ability to perceive accurately, appraise, and express emotions; the ability to access and/ or generate feelings when they facilitate thought; the ability to understand emotions and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth” (Salovey & Mayer, 1990). Emotional intelligence is a novel and hook area of modern day research which plays a pivotal role in various key areas of business and

management including management of human resources, job satisfaction, personal outcomes, among others. The role of emotional intelligence in enhancing satisfaction level of employees towards their job has attracted researchers and has become emerging domain of business research. There is a superfluity of literature available on the relationship between employees' emotional intelligence and job satisfaction because of its positive impact on overall productivity and performance of organisations. Job satisfaction and emotional intelligence of employees move in a same direction (Wen, Huang, & Hou, 2019) and employees high on emotional intelligence possess the capability to identify, understand and regulate the feelings of frustration and stress (Cooper, & Sawaf, 1997) and their performance is positively attractive (Afolabi, Awosola, & Omole, 2010) which also positively affect their job satisfaction (Sony, & Mekoth, 2016). Hence, the following hypothesis was propounded on the basis of above literature:

Hypothesis 2: Emotional intelligence positively influences employee job satisfaction.

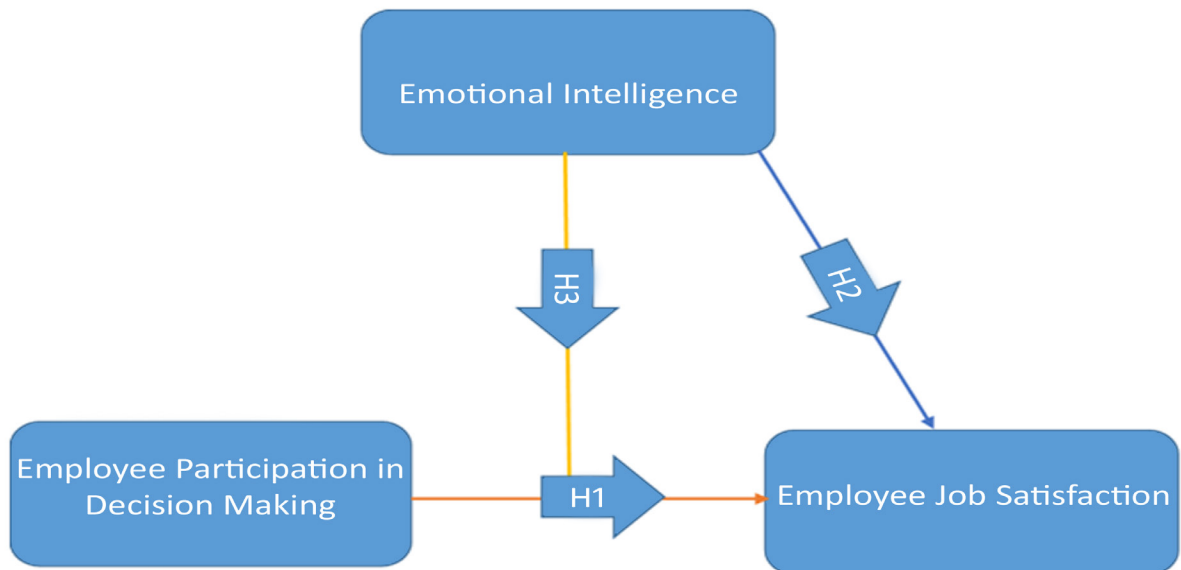
MODERATING EFFECT OF EMOTIONAL INTELLIGENCE ON EMPLOYEE PARTICIPATION IN DECISION MAKING AND EMPLOYEE JOB SATISFACTION

By emotional intelligence, this study means EI is "the subset of social intelligence that contains the ability to manage one's own or others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Reus, & Liu, 2004). Emotional intelligence is a catchy area in management research and significantly influences job contentment among employees'

and thereby performance of an organisation. The main proposition of the present study is grounded on the notion that high emotional intelligence and employee participation in decision making will enhance the quality of business decisions which eventually will result in high employee job satisfaction. The present study argues moderating role of EI in the proposed model. The argument is based on the fact that employees high on EI effectively capitalise decision making avenues to attain individual vis-a-vis organisational goals (Rausch, Hess & Bacigalupo, 2011) which enhances their job contentment/satisfaction (Goñi-Legaz, & Ollo-López, 2017).

Hypothesis 3: Emotional intelligence moderates the relationship between employee participation in decision making and employee job satisfaction, such that the relationship between employee participation in decision making and employee job satisfaction is high when emotional intelligence is high.

The research framework for the current study was developed on the basis of extensive literature review, as presented in Figure 1.

Figure 1: Hypothesized Model

METHOD

Sample

The data for the present study was obtained from employees working in public and private sector banks located in Jammu & Kashmir, India. The sampling technique used in the present study was random sampling. The sample size for the present was 379 based on Krejcie & Morgan Table (Krejcie & Morgan, 1970). The questionnaires were distributed among 400 respondents keeping in view attrition rate (5.5% approx.). The response rate was 98% i.e., 392 out of 400 questionnaires were received back. The questionnaires found to be effective for analysis were 383 after removing unengaged and incomplete responses.

Procedure

The data collection was performed by means of a structured questionnaire. The targeted

respondents were informed about the intent of survey and they were also assured about the confidentiality of information.

Measures

The present study consisted of three variables. The 5-point scale was employed to measure all the study variables wherein 1 represents Strongly Disagree and 5 means Strongly Agree. The adopted questionnaire consisted of five items for employee PDM (Kahnweiler, & Thompson, 2000), five items for employee job satisfaction (Atteya, 2012), and four items for emotional intelligence (Wong, & Law, 2002) exhibiting reliability coefficient of 0.955, 0.958, and 0.964 respectively. SPSS 23.0 was employed to create groups on the basis of Low emotional intelligence and High emotional intelligence. The two groups were as: 'Low EI' (n= 165, mean= 3.018, range= 1-5), and 'High EI' (n=218, mean=4.117, range= 1-5).

RESULTS

Analysis: Preliminary

SPSS 23.0 and AMOS 22.0 was employed to analyse the data (Jöreskog & Sörbom, 1996). The latent factors were identified by employing exploratory factor analysis (EFA) which were then established with confirmatory factor analysis and finally hypotheses were tested by employing structural equation modelling

(SEM). The Cronbach's alpha was calculated independently for all three variables to confirm reliability. The reliability was satisfactory as (See Table 1) Cronbach's alphas exceeded the acceptance level of 0.7 (Nunnally, 1978).

Three factors were identified during EFA (See Table 1). The loadings for all the factors were above the minimum acceptance level 0.50.

Table 1: Summary of EFA Results

Factor	Items	Factor Loadings	Cronbach's Alpha Coefficients	Communalities	Variance Extracted	KMO
EMPLOYEE PARTICIPATION IN DECISION MAKING			0.955		55.452	0.911
	EPDM1	0.908		0.869		
	EPDM2	0.892		0.873		
	EPDM3	0.863		0.813		
	EPDM4	0.887		0.820		
	EPDM5	0.909		0.872		
EMOTIONAL INTELLIGENCE			0.958		19.667	0.911
	EI1	0.879		0.843		
	EI2	0.893		0.903		
	EI3	0.896		0.919		
	EI4	0.856		0.903		
EMPLOYEE JOB SATISFACTION			0.964		12.079	0.911
	EJS1	0.883		0.896		
	EJS2	0.890		0.913		
	EJS3	0.900		0.893		
	EJS4	0.879		0.868		
	EJS5	0.863		0.823		

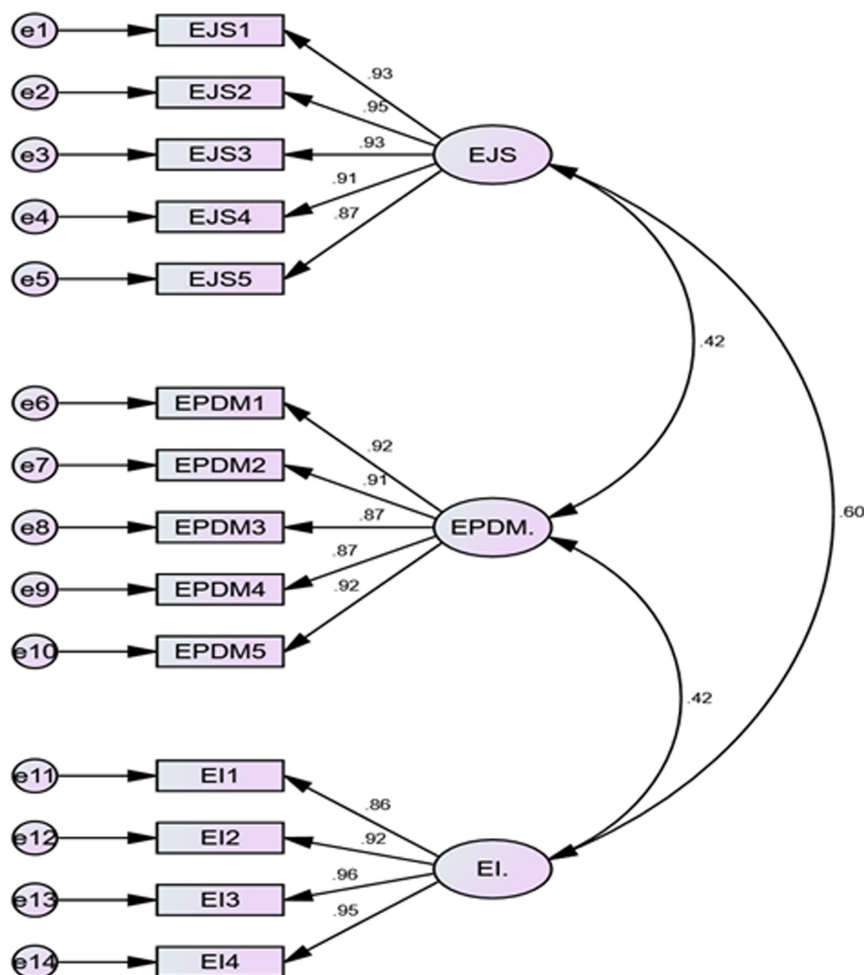
Note: EPDM=Employee Participation in Decision Making; EI=Emotional Intelligence; EJS=Employee Job Satisfaction

SUMMARY OF CFA RESULTS

The model fit indices were calculated to ensure the construct validity between latent variables and their summative subscale variables (Kline, 1998). The CFA results exhibited factor loadings above the threshold level of 0.60, and the fit indices also meet the recommended criteria (Kline, 1998) as: (CMIN= 187.77,

DF=74, CMIN/DF = 2.538, GFI = 0.899, TLI= 0.963, CFI = 0.970 and RMR = 0.048, RMSEA=0.083). The hypothesized model fits the data very well which was indicated by measurement model, providing confirmation regarding the distinctiveness of employee participation in decision making, emotional intelligence and employee job satisfaction.

Figure 2: Measurement Model Reliability and Validity



RELIABILITY AND VALIDITY

The convergent and discriminant validity of the constructs used in the study were verified by employing average variance extracted (AVE) which was above the minimum acceptable limit of 0.50 (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). Convergent validity is again supported by composite reliability which is greater than AVE (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). Discriminant Validity refers to the degree to which constructs differ from each other and is ensured when square root

of AVE exceeds the inter construct correlation (Fornell & Larcker, 1981). Adequacy of convergent validity, discriminant validity and reliability of measurement model can be seen in Table 2. The CFA & EFA results depicted consistency. The below given Table confirms composite reliability as all the values exceed the benchmark of 0.70. The unidimensionality was confirmed by employing

Cronbach's alpha coefficient. Reliability of the measures is adequate as the values fall above the threshold level of 0.70 (Fornell & Larcker, 1981).

Table 2: Summary of Reliability and Validity

	CR	AVE	MSV	EPDM.	EJS.	EI.
EPDM.	0.955	0.809	0.176	0.899		
EJS.	0.965	0.845	0.362	0.419	0.919	
EI.	0.958	0.851	0.362	0.415	0.602	0.922

Note: EPDM=Employee Participation in Decision Making; EI=Emotional Intelligence; EJS=Employee Job Satisfaction; CR=Composite Reliability; AVE= Average Variance Extracted; MSV= Maximum Shared Variance; ASV: Average Shared Variance

ANALYSIS: USING STRUCTURAL EQUATION MODELLING

The goodness of fit indices determined the adequacy of structural model. The fit of proposed model to collected data was exhibited by model fit indices which included (CMIN/df =3.020 which should fall below 4 (Field, 2000), GFI = .885, CFI = .960 goodness measures of fit should be close to 0.90 (Hooper, Coughlan, & Mullen, 2008; Hu & Bentler, 1995) and RMR = .095, RMSEA=

.022 badness measures of fit should be less than 0.10 (Bollen, 1989; Browne & Cudeck, 1993). The SEM technique is used to assess the relationship between an independent, moderating and dependent variable. The below given tables (See Table 3 & 4) exhibit significant association between the study variables. All the set hypotheses are supported (See Table 3 & 4) as the below tables exhibit significant path coefficients.

Table 3: Results of Hypotheses Testing

Hypothesis	From	To	(β) value	T- Value	Results
H1	EPDM	EJS	0.222	3.839***	Supported
H2	EI	EJS	0.540	8.680***	Supported

*** Significant at 0.001 level

Note 1: EPDM: Employee Participation in Decision Making, EI: Emotional Intelligence, EJS: Employee Job Satisfaction

In our analysis, employee participation in business making was found to have statistically significant influence on employee job satisfaction. The β , T and p values (0.222, 3.839 and 0.001 respectively) (Table 3) indicates positive influence of employee participation on job satisfaction of employees. Hence hypothesis (H1) is supported.

Hypothesis 2 was also supported which can be inferred from β , T and p values (See Table 3) which were 0.540, 8.680 and 0.001 respectively. From the above results, it can be deduced that emotional intelligence has a significantly positive impact on employee job satisfaction.

In hypothesis (H3), we proposed that emotional intelligence moderates the association of employee participation in decision making and job satisfaction of employees. In order to test this hypothesis, sample was divided into subgroups of High EI Group (56.9% n=218) and Low EI Group (43.1% n= 165). The results showed significant interaction. The β and t- Values also depict significant results (See Table: 4). Therefore, the findings support the hypothesis (H3) and signifies that the relationship between EPDM and EJS is high when emotional intelligence is high and vice-versa.

Table 4: Hypothesis testing: moderating effect

	Employee Participation in Decision Making	Moderator Variable		Employee Job Satisfaction	(β) value	T- Value	Test Results
		High EI (HEI)	Low EI (LEI)				
H2:	EPDM			EJS	222***	3.839	Supported
		HEI		EJS	.524***	8.422	
	EPDM	*HEI		EJS	.274**	4.658	

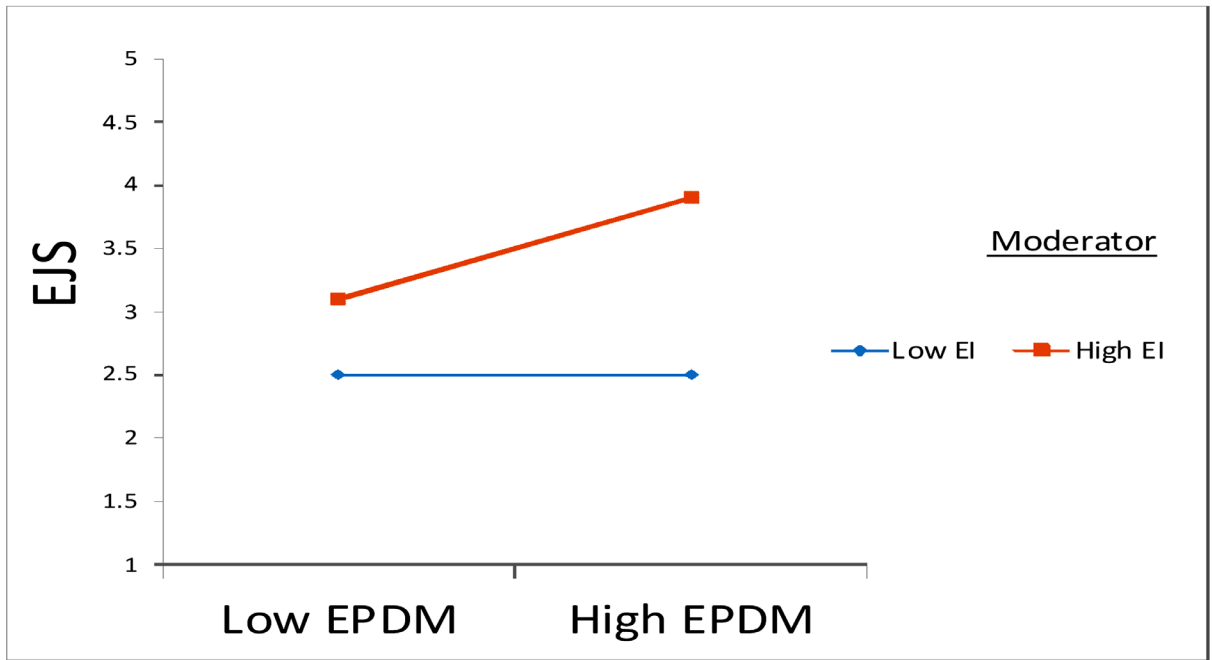
Note: Only significant results are reported in table.

EPDM= Employee Participation in Decision Making, HEI= High Emotional Intelligence, LEI= Low Emotional Intelligence, EJS= Employee Job Satisfaction, β =standard regression weights (labelled as beta in AMOS software), t-value represents C.R.

**p< 0.01

***p< 0.001

Figure 3: Summary of interactions between employee participation in decision making and emotional intelligence in predicting employee job satisfaction



Note 1: The above figure shows that emotional intelligence (EI) strengthens the positive relationship between employee participation in decision making (EPDM) and employee job satisfaction (EJS).

Note 2: EJS= Employee Job Satisfaction, EI= Emotional Intelligence, EPDM= Employee Participation in Decision Making

The results of structural equation modelling analysis depict significant relationship between employee participation in decision making and emotional intelligence as the prognosticators of employee job satisfaction (Table 4). The interaction term (EPDM*EI) significantly predicts the dependent variable, employee job satisfaction ($\beta = 0.274$, $p < 0.01$). Figure 3 depicts that employees possessing high EI can significantly enhance their job satisfaction level when given chance to participate in decision making. Moreover, Figure 3 depicts that When employees possess high emotional intelligence, the slope of association between EPDM and EJS is significantly positive. Hence, hypothesis 3 is supported.

CONCLUSION

The present study signifies the prominence of employee participation in decision making and emotional intelligence in predicting and promoting job satisfaction among the banking personnel under context. The present study has three fold objectives:

The first goal of the research paper was to assess the impact of employee participation in decision making on promoting job satisfaction among employees. The results suggest (Table3) significantly positive association between employee PDM and employee job satisfaction and, hence it can be deduced that more avenues for employee participation in decision making can enhance their job satisfaction.

Second objective of the present study was to investigate the impact of emotional intelligence on job satisfaction of employees. The results exhibited by Table 3 show significantly positive relationship between emotional intelligence and employee job satisfaction.

The third and basic purpose of the research study was to assess the moderating effect of emotional intelligence on the association of employee PDM and job satisfaction. The β , t and p values show significantly positive results (Table 4) among the study variables.

Theoretical contributions

The findings of the current study posit that not all the predictors of employee job satisfaction are equally impactful. Overall, study relationships were found to be positive which signifies that all the predictors, used in this study, positively influenced employee job satisfaction. Unexpectedly, emotional intelligence was found to be having more

influence on employee job satisfaction than employee participation in decision making.

Study Implications: Practical

The findings of the present study highlight the importance of considering emotional intelligence for human capital and organisation. Organisations should devise policies in such a way that emotional intelligence of employees is developed and polished positively so that it proves fruitful to both the individual and organisation. Higher job satisfaction is not only essential for employees well-being but also for the organisation (Bakotic, 2016). So, designing policies for developing emotional intelligence of employees may be more appropriately relevant in places like J&K, India, which lacks congenial work environment due to different disturbances (Sharma, Sharma & Waris, 2012).

Potential limitations and directions for future research

Though this research study made commendable contributions towards the existing literature but is still associated with some limitations which can be taken care-off in future studies. Firstly, the data was cross sectional in nature as it was collected at a particular point of time. Therefore, it cannot throw light on causality among the study variables. It paves way for future research to employ longitudinal design and focus towards causality among variables..

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EVOLVING A PSYCHOMETRIC INSTRUMENT TO MEASURE WORK LIFE BALANCE

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ABSTRACT

Education industry is a big contributor in Indian service sector in terms of providing employment and eventually contributes to the factor determining national GDP. In the continuation, issues and challenges related to Work life balance have been gaining attention as well. These issues have been observed to be more prominent in service sector.

However, various researchers and studies have developed few scales to measure work life balance but current study is an attempt to define a much elaborative and precise scale for the measurement of WLB in education industry. In present work, a 30 items scale defined under three factors is designed to measure WLB of academicians working in education industry. The data for the purpose was collected from a sample of 125 academicians working in private universities in Jaipur City. The reliability and validity of the scale has been tested by using Cronbach Alpha analysis.

Keywords: Work-life balance, psychometric, education industry.

INTRODUCTIONS

Today, globalization and liberalization have changed the current situation of employees working in various sectors in developed as well as developing countries. Every country is getting influenced by international trends and work life balance has turned out to be a major concern in focus. Problems and its consequences associated with work life balance are now gaining specific attention and various researchers as well as academicians are contributing their different perspectives related to professional as well as personal life (Tasnim et al. 2017).

Even government organizations have now started to give importance to WLB problems and practices and moreover are now working towards increasing the awareness of WLB among employers and employees (Chandra 2012). According to Yu (2014) even public debates have become an open platform to discuss work life balance as an important issue.

In addition to this, even society as a whole have seen dynamic changes in work and family concepts throughout the world. These changes are not only confined to socio-cultural domain but technological development have also led to improved living standard. However these

advancements and innovations also increase challenges, conflicts and stress on performance at work and expectations in personal life (Lambert et al., 2006). Due to these problems and issues, concept of work-life balance is emerging and being publically discussed as well. Not only discussions but researchers around the globe are studying this issue to gain new perspectives from different countries (Clark, 2000; Fisher, 2001; Greenhaus et al., 2003; Mathew and Panchanatham, 2009; 2010).

Collin and Shaw (2003) have defined the same term as balanced distribution of involvement and satisfaction of an individual at work and with family. Individuals who experience good work-life balance tends to distribute equal time and attention at work and non-work sphere. It depends on various factors like individual's personality, ideology, social life and status, motivation and desire towards life that affects his awareness and concern towards work-life balance. Organizations on the other hand can equally contribute to maintain this balance with incorporating faculties like flexi-timings, telecommunicating to work, work from home, in-house care centres etc. Davison (2012) in his study has highlighted the concept of overlapping of professional interaction and personal or social interaction. Although facilities like digital media, call conferences and social portals may provide ease of working but at the same time may lead to complete disaster in balancing work and life.

As a result, over the past few decades various researchers have developed instruments to measure work-life balance targeting different groups in different scenarios. Few to mention are Fisher (2001), Greenhaus et al. (2003), Hillet al. (2004), Huffman et al. (2004) and Hayman

(2005). Now mostly all the mentioned scales are developed in western countries and are reliable to be used in further studies. But when it comes to India, not only values, society structure, family relations are different but nature of jobs, working culture and work values are diverse in nature. Further to this, as per reviewed literature a 42 point scale instrument has been developed by V.M. Rincy and N. Panchanatham in 2010 to measure WLB which has been referred in the current study. However, present study considers different variables to design and validate the scale. In the support of study following hypotheses are designed and proposed for further validation:

H1: Job Satisfaction have no significant impact on Work-life balance;

H2: Career Advancement have no significant contribution in achieving WLB;

H3: Family to work conflict have no significant impact on Work-life balance

METHODOLOGY

Sampling and data collection

For the purpose of designing the Work-Life balance scale data has been collected through the process of convenient sampling from population of academicians working private universities in Jaipur City (Table 1). Various universities from city were taken into consideration after analysing the affiliations and requisites of being considered private university.

For the purpose of data collection random sampling method has been adopted and total of 125 employees were contacted for conducting the study. Structured questionnaire was used as a data collection tool sent via email/letter and personal mode. Questionnaires were sent

to a total of 220 respondents out of which 125 were returned with filled response. Open ended questions were avoided while designing the questionnaire to keep the response precise and streamlines.

After in depth literature review 30 statements were finalised under three categorical dimensions

which were able to justify and validate the issues related to Work-Life Balance. In order to check the reliability of the set statements, first a pilot survey was conducted on 15 people comprising HR professionals, academic experts and industry delegates from education industry.

Table 1: Details of Demographic Profile of surveyed Respondents

Demographic Variable	Category	No. of Respondents
Age	18-30 Years	44
	31-40 Years	59
	41-50 Years	15
	> 50 Years	7
Marital Status	Un-married	32
	Married	89
	Divorced	4
Highest Qualification	Graduation	7
	Post-graduation	82
	PhD	31
	M.Phil.	3
	Any Other, Specify	NA

Lastly, the design of questionnaire was kept very comprehensive and comprised three sections in total. First two explains the socio-demographic profile of the respondents and third has the 30 statements (Table 2) measuring Work-Life balance of the chosen sample. At the end, reliability of the proposed instrument is assessed using Cronbach Alpha Coefficient (Cronbach 1951).

A five point Likert Scale (stating 1= strongly agree, 3= neutral, 5= strongly disagree) was used to design the measuring instrument. The overall assessed value was considered the significant Work-Life balance index and was considered as a dependent variable for evaluating the various other measurements in the scale.

Statistical Analysis

The 30 items selected for designing WLC index of academicians working in private universities in Jaipur City were factor analysed using principal components analysis with varimax rotation method (Table 3).

Karl Pearson Coefficient of Correlation method was used to determine the existing correlation between the variables considered for the scale. To determine the magnitude and characteristic

of relationship between variable, regression analysis was used.

Profile of the respondents

All the surveyed respondents were academicians working in private universities in Jaipur City. A brief summary of the socio demographic profile of the respondents is recorded for interpretation in the Table 1.

Table 2: Mean ratings of work life balance scale

Item No.	Items	Mean	SD
Item 1	The physical conditions (lighting, space, arrangement of materials) under which I work and basic amenities (restrooms, staff rooms, canteens) provided to me are satisfactory	2.70	1.081
Item 2	I believe that people in my organization, for the most part, work well together	2.150	.6708
Item 3	Mybosses and colleagues are cooperative, helpful and inspiring people for better and sincere work	2.55	.945
Item 4	My present salary is compatible with the work load allotted to me	3.55	1.234
Item 5	On the basis of experience, I am paid the same or nearly the same as others who do the same kind of job	3.65	1.309
Item 6	I feel remuneration policy of this organization is better when compared withmany other in the industry	3.20	.894
Item 7	I feel that, in due course of time, my employer may replace me with other worker who is willing to do my job for less money	2.45	1.572
Item 8	The level of job security offered by my organization is more than that offered by competitors	2.95	.999
Item 9	My current position ispermanent and safe and I feel my performance is evaluatedfairly	3.60	.995
Item 10	Organization Benefits like medical insurance, life insurance etc. provided by my organization adequately meet my personal needs	4.00	.795

Item 11	The incentives and rewards granted for good work time to time by the management are appreciable	2.75	.851
Item 12	At my job the inbuilt programs for recreation & entertainment like picnics, outings variety are significant	2.75	.851
Item 13	Being a faculty member in my current organization gives me enough opportunities and time to pursue developmental activities	2.75	1.118
Item 14	Job promotions in this organization are fair and are based on performance and merit	3.45	.945
Item 15	My job responsibilities contribute to my professional development	2.60	1.188
Item 16	FDP's are important for individual development of an academicians	1.85	.745
Item 17	This organization has provided me with training opportunities enabling me to extend my range of skills and abilities	2.10	1.119
Item 18	My work pays for any work related training and development I want to undertake	2.60	1.046
Item 19	I feel quitting my job as am not able to manage with job responsibilities and personal life	3.10	.912
Item 20	Current work arrangements have acted as a barrier in taking up further education and training courses	2.75	1.070
Item 21	Inability of working beyond office hours is unavoidable in normal course of life, which slows down the progression in career growth	2.85	.933
Item 22	It is difficult to concentrate at work because of family responsibilities and commitments	2.85	1.424
Item 23	Due to family activities, I have to make changes to my plans for work-related duties	3.50	.889
Item 24	My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime	3.70	.923
Item 25	My family member's co-operates in balancing my family life and work life	1.70	.657
Item 26	My family understand my job demands and supports me in different circumstances	1.70	.657
Item 27	I can rely on my family to make sure my personal responsibilities are handled when I have unanticipated work demands	2.45	.945

Item 28	I miss family and social occasion because of extended work schedule	2.25	.910
Item 29	The amount of time my job takes up makes it difficult to take time out for physical fitness	2.35	1.040
Item 30	The amount of time my job takes up makes it difficult for me to get sufficient time for myself, my family, relatives and friends	2.55	1.050

Note: Five-point scale was used for rating the WLB instrument ranging from 1 = Strongly Agree, 3 = Neutral to 5 = Strongly Disagree; a = the highest mean among all items; b = lowest mean among all items.

Mean ratings of the items in the work life balance scale

Among the items under study, “My home life interferes with my responsibilities at work such as getting to work on time, accomplishing daily tasks, and working overtime” was rated highest with a mean of 3.70. Whereas, “My family member’s co-operates in balancing my family life and work life” & “My family understand my job demands and supports me in different circumstances” scored the lowest mean rating of 1.70” which implies family to work conflict plays an important role in balancing work and personal life and moreover employees are aware of these issues leading to a stretch in the work and personal life.

Item No.	Factor Loading	Factor Name	Factor Mean	Cronbach Alpha
Item 1	.904	Job Satisfaction	3.025	.728
Item 2	.961			
Item 3	.980			
Item 4	.925			
Item 5	.942			
Item 6	.863			
Item 7	.926			
Item 8	.955			
Item 9	.874			
Item 10	.936			
Item 11	.857			
Item 12	.937			

Item 13	.961	Career Advancement	2.677	.796
Item 14	.935			
Item 15	.959			
Item 16	.962			
Item 17	.874			
Item 18	.966			
Item 19	.978			
Item 20	.912			
Item 21	.945			
Item 22	.951	Family to Work Conflict	2.561	.703
Item 23	.959			
Item 24	.991			
Item 25	.940			
Item 26	.912			
Item 27	.948			
Item 28	.991			
Item 29	.966			
Item 30	.920			

Over the period of time, various instruments have been designed and deployed to measure work-life balance of employees in different geographical locations and Reiter (2007) has published a detailed literature on several available instruments. Mostly every scale under his published review is a reliable and validated with high Cronbach Alpha Coefficients but practical implementation of these scales in Indian context to measure work-life balance in education industry is very difficult. The barrier in adopting these scales ranges from attributes of the understudy population, working conditions, family status and structure to the societal organization. When it comes to Indian context, this situation or these barriers get even more

complicated due to distinctiveness in society and family. As Indian society primarily is male dominated and concept of joint family is still indulged in system, this changes the entire social setup under which former scales have been developed.

With due time, Indian economy flipped and inadequate financial problems started to flourish in Indian families. Such situation forced women to become a part of earning source so as to fulfill the household demands in financial aspect. Activities once considered to be a duty of men became joint responsibility to a couple and women began to contribute in diversified spheres of life. Women in global scenario have left remarkable accomplishments to be

counted and remembered for. Now they have become an important contribution towards nation's development and growth. Even after these tremendous development and changes traditional aspects of Indian culture are still intact and moreover are nurturing. Taking care of old age parents, quality education of children, personal as well as family needs are few to mention that are considered as primary concerns at times. In the same way, working environment as well as culture in industries are also evolving (Khatri and Budhwar, 2000; OECD, 2004). While considering all the above mentioned changes and scenarios, employees in Indian education industry are facing work issues and phenomenal imbalance in their work life as well as personal life. Hence, it is very important to induce a specific instrument in education sector in India. For developing the instrument in current study Fisher (2001), Greenhaus et al. (2003) and Hayman (2005) have been constantly referred and used for the study.

In the presented study, method of factor analysis is used with principle component method for extraction by varimax value resulting in three factors. All three factors are having greater than (>1) eigen value and factor loading is more than .5. This has been considered on the basis of study described by Hair et al. (2005) which states that all the factors with eigen value greater than 1.0 and factor loadings greater than .5 can be considered in measuring instrument. After verifying the instrument on the basis of dimension, reliability of the variables was evaluated by using Cronbach Alpha coefficients. The result of alpha values were more than the minimum value of 0.7 (Cronbach, 1951).

The resulting Cronbach alpha values of the final three factors are as follows:

Job Satisfaction: .728

Career Advancement: .796

Family to work Conflict: .703

After analysing the factor loading and reliability index a final schedule of 30 items resulted this is defined in three factors measuring work-life balance of academicians working in private universities in Jaipur city. Further, detailed questionnaire explains various statements to evaluate the final three factors. The present study can be taken further to measure the work-life balance in various augmented sectors and both work life and personal life can be explored extensively.

In the nutshell, the developed scale of 30 items explored in three factors is an attempt to measure work-life balance of academicians in education industry. The proposed instrument holds adequate reliability and tested validity. Not only this instrument is capable of measuring work life balance but also is able to provide details about employee's awareness as well as perception towards the issue. Apart from measuring work life balance this tool further may help to evaluate the efficiency and effectiveness of various policies and provisions designed by organization in order to support as well as promote work life balance among employees. This will eventually help higher management and HR personnel to understand the problems better and to find appropriate solutions for the same. The present study contributes to the existing literature available in reference to work-life balance which in extension leaves a scope to analyse and understand the bridge between work life and personal life of an employee.

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FINANCIAL LITERACY LEADS TO DEVELOPMENT: MEDIATING ROLE OF FINANCIAL INCLUSION, AN EMPIRICAL STUDY

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ABSTRACT

The study is performed with the major objective of gaining insights and knowledge about the role and importance of financial inclusion in the holistic development of a nation. The study also laid emphasis in finding the role of social capital as a moderator in the relationship between financial literacy and financial inclusion and impact of mobile banking as a moderator in the relationship between financial inclusion and development through mobile banking. Mediating role of Financial Inclusion was also explored in the study. The study is empirical in nature. The sample size of the study is 197 respondents which were chosen through non probabilistic convenient sampling method. The study uses structural equation modeling approach to find the association between financial literacy and financial inclusion and development. The study also performs hierarchical regression to check the moderation effect and Process Macro for mediation analysis. The research finds that there exists positive significant association

between the level of penetration of the financial literacy and the extent of financial inclusion and between the prevailing level of financial inclusion and the level of nation's development. It was also concluded from the study that mobile banking significantly act as a moderator for the relationship between financial literacy and financial inclusion and social capital was a significant moderator for the relationship between financial inclusion and development of the nation. Financial Inclusion partially mediates the relationship between financial literacy and development of the nation. Since the study is performed only on a sample of 197, belonging to Delhi NCR region, it can be taken as a limitation for the study. In future, the significance of demographic variables on the established relationship can be explored.

INTRODUCTIONS

Financial Inclusion is truly the foremost objective for most of the nations which are at their developing stage as several research findings

concluded the presence of direct link between financial exclusion and the extent of poverty prevailing in the nation. **World Bank report** defined “Financial inclusion as wide-ranging accessibility to financial services, or as an absence of both the price or non-price barriers for the use of these financial services by the people at large.” The presence of intense financial systems aids in offering a wide variety of financial products like investments, term deposits, loan payment, and hedging or risk management products to people holding diverse variety of needs and aspirations. A comprehensive financial system permits a wide-ranging access for different financial services offered to poor or disadvantaged groups of people specifically. The quest of financial inclusion is mainly intended at motivating the population which is ‘unbanked’ or out of the domain of financial system into the field of a structured, recognized and mechanized financial system (**Pearce, 2011**). It is believed that the lack of access to different financing activities will unfavorably affects growth aspects of the nation and also it will slow down the poverty alleviation mission as well, as in this type of situation it will be hard for the poorly people to gather their savings, or to make their assets, to safeguard themselves against the probable risks, as well as to capitalize for diverse projects which generate high revenue. In some researches emphasis was laid on the vital need of accessing finance by the entrepreneurs as availability of financing activities will encourage entrepreneurs to take risk, presence of financing activities will also provoke them to invest more, which in return will contribute to growth in a positive manner. Several studies conducted in the past like (**Honohan, 2004; Demirguc and Klapper, 2012, etc**) recognized a robust link between economic development and

growth of a nation and the quality of financial access like banking services to the citizens of a country. Financial Inclusion can be viewed as an analytical lens through which one can recognize the existing relationship between finance and the poor. Financial inclusion is an access to on time, satisfactory credit and other economic services which can be used by different susceptible and weaker sections of the society at an affordable cost). As per **Bold 2012, Jenkins, 2008, Porteous, 2006, Ehrbeck, 2012** there is a relationship between the extent of financial inclusion and adoption of mobile payment. Jenkins (2008)said that it is the ability of the mobile money which enables financial inclusion which in return has enormous potential for development. Thus, this paper focuses on establishing the link between financial inclusion and development with the use of mobile banking and social capital.

LITERATURE REVIEW

Financial Literacy and Financial Inclusion

Atkinson, Messy (2013) stated that there is extensive need to scale up the financial literacy level to decrease the degree of people omitted from benefits of monetary or financial services and products. **Klapper, Lusardi ; Oudheusden (2015)** concluded that unless government makes considerable efforts to increase financial literacy levels among people, boosting of financial inclusion by opening accounts or making other financial services available will not show any significant effect. Promoting financial inclusion is significantly related to financial literacy levels. **Singh, Gupta (2013)**, in their paper stated that government should use behavioral factors to strengthen the financial inclusion level instead of focusing only on financial literacy level. Other

models like mobile payment system telecentres etc can be explored for strengthening financial inclusion.

H1: There is an influence of level of financial literacy on the level of financial inclusion.

Banking through Mobile and Financial Literacy and Inclusion.

Donovan,(2012) stated that introduction of mobile money will embrace world's poor into the domain of financial services and thus can strengthens the financial inclusion. **Etim(2014)**, in his paper stated that government should focus on using different electronic payment modes for reimbursing amount like salaries or collecting revenues. Through this financial inclusion can be encouraged as numerous people will hold or use their bank accounts in a more efficient manner, which they otherwise are not using.

Hughes, Lonie (2007) in paper had concluded that mobile banking will aid in bringing individuals into the communications and monetary channel worldwide. **Lal, Sachdev (2015)** in their paper concluded that services offered by mobile banking can be deployed effortlessly for strengthening the extent of financial inclusion countrywide, which will automatically reduce the poverty level and will contribute towards the economic development of the country.

H2: There is a moderation effect of Mobile banking penetration on the relationship between the level of Financial Literacy and the extent of Financial Inclusion.

Financial Inclusion and Development

Chibbaa (2009) in his paper concluded that financial inclusion offers multi-dimensional answers to cope with the problem of poverty, it also aids in promoting inclusive growth and

in achieving millennium development goals. **Sarma, Pais (2008)** in their paper by using index of financial inclusion (**Sarma,2008**) concluded that extent of human development bears a strong relation with financial inclusion. They also laid emphasis on importance of social factors like income level of the country are significantly contributing in deciding the financial inclusion level prevailing in the country.

Allen, Carletti, Cull, Qian, Senbet, Valenzuela (2014) in their paper concluded that recent developments in financial services offered to citizens of a nation, will significantly contribute in development of infrastructure and mobile banking is positively contributing in strengthening the financial inclusion. Gabor, **Daniela and Brooks (2017)**, in their paper concluded that digitalization is helping the financial inclusion in a positive manner by providing new ways of expanding the inclusion activities and by bringing poor households into the category of generators of financial assets. **Laha (2015)** in his paper through cross sectional analysis of Indian states concluded that financial inclusion is strongly positively related with human development as states which hold high level of human development index usually have relatively higher index of financial inclusion. Also **Babajide, Adegboye, Omankhanlen(2015)**, concluded that financial inclusion is a important factor in economic growth or progress of the country as it directly or indirectly determines the final output of the economy. **Shetty (2008)** In his paper had said that financial inclusion via microfinance channel helps in upscaling the household income, expenditure, assets, employment. Thus, financial inclusion is positively related with the development and progress of a nation as it attempts to pause the vicious circle of poverty.

Kaur, Singh (2015) through their paper concluded that financial inclusion strengthens the financial development of the nation by broadening the resource base of the nation. **Neaime, Gaysset (2017)** had written that only poverty inequality is decreased by financial but it had no effects for poverty reduction and financial inclusion significantly contributes for financial stability. **Sarma(2008)**, in his paper formulated an Index of financial Inclusion wherein Human Development Index, among other factors are given weightage for the calculation. This showed that human development is associated with financial inclusion.

Kelkar, (2010), stated through research that financial inclusion will significantly contribute towards economic development. **Sarma, Pais (2011)**, in their paper found that levels of human development most often move with the level of financial inclusion index of the country. Along with factors of social economic dimension, other factors like infrastructure, pay, dissimilarity of income, literacy, expansion of cities, towns, other physical infrastructure facilities are also essential for connection and information purposes. **Sharma, Kukreja (2013)** also highlighted the necessity for financial inclusion in promoting sustainable and comprehensive development and growth of the nation.

H3: There is an impact of extent of financial Inclusion prevailing in the country on the Development level of the nation.

Social Capital and Financial Inclusion and Development

Guiso, Sapienza, Zingales (2004) highlighted a very strong association between social capital prevailing in the area and the level of financial contracts. They concluded that social capital can

be considered as a most significant antecedent for financial development. **Candiya, Bongomin, Ntayi, Munene, & Nabeta, (2016)**, in their paper stated that as a moderator, role of social capital was also significant in the association between financial literacy level and extent of financial inclusion. Being a mediator it enhances the degree of association between the level of financial literacy and the financial inclusion. Thus, one can conclude that if social capital is not present then literacy level has little role in improving the magnitude of financial inclusion in the country.

H4: There is a significant moderation effect of Social Capital on the association between Financial Inclusion and Development.

RESEARCH METHODOLOGY

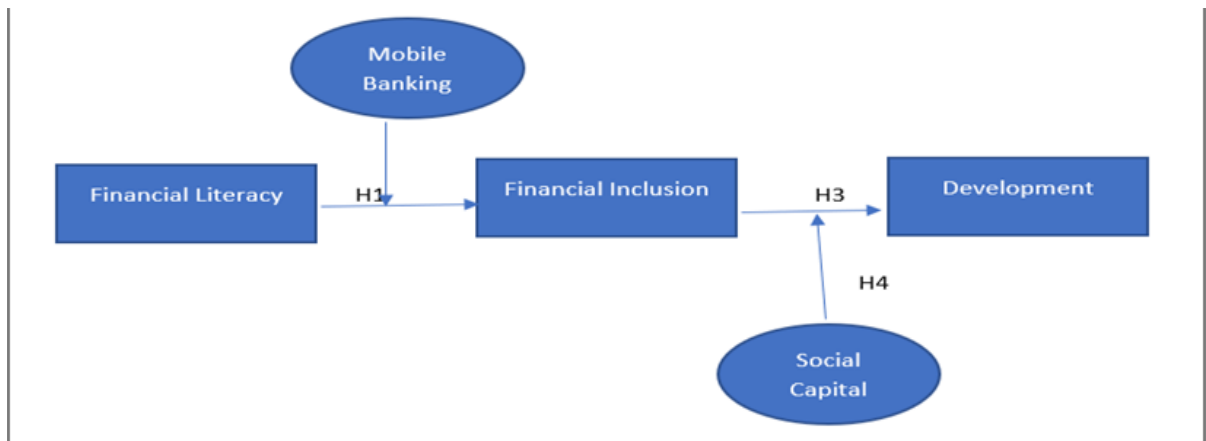
A well-structured questionnaire was considered in carrying out the research work. The questionnaire consists of seven statements for financial literacy (adapted from the work of Atkinson, Messy (2013), Klapper, Lusardi; Oudheusden(2015), five for mobile banking penetration (adapted from Donovan(2012), Hughe, Lonie(2007)) five for financial inclusion, (adapted from Chibbaa (2009), Sarma, Pais(2008)), four for social development (adapted from the work of Guiso, Sapienza, Zingales (2004) Candiya, Bongomin, Ntayi, Munene, & Nabeta, (2016)), and five for development (adapted from the work of Arindam Laha (2015), Babajide, Adegboye, Omankhanlen(2015)).

The respondents chosen for the study is a common individual who lives in the Delhi NCR region. Area for the study is chosen as it is convenient for the researcher as well Delhi is a metropolitan city. We have used non probabilistic sampling method

to identify the respondents for the study. For collecting data, we have used online questionnaire method whereby we mail the questionnaire to the respondents. The online questionnaire method is considered as a appropriate tool for collecting the data as the respondent willingly have chosen to participate in the study by filling the online questionnaire. Moreover, respondents were also

encouraged to forward the questionnaire to their known ones in order to have a good sample size. In total the questionnaire was send to 275 individuals, out of which 197 responses were deemed fit to be included in the analysis as rest of the responses were incomplete with respect to one or more construct.

Figure 1: Proposed Research Model



(Author's own model)

This is a conceptual model designed to figure out the association between FL and FI ; FI and DV. Furthermore, moderation effect of mobile banking penetration & social development will be calculated on FL and FI; FI and DV. Mediating role of the financial inclusion on association of financial literacy and the level of development will also be analyzed.

DATA ANALYSIS AND FINDINGS

Reliability and Sample Sufficiency Test

To assess the reliability of scale used for study along with each construct, we computed the Cronbach Alpha, which is used as a measurement tool for checking internal consistency of the items. The overall value for the complete scale is coming out to be .981 which is above the threshold limit of 0.7. To validate the adequacy of sample size, Kaiser –Meyer-Olkin (KMO) measure is used along with Bartlett's Test of Sphericity whose value is coming out to be .960 which is above the minimum level of 0.6 along with significant value of Bartlett's test. Reliability of each construct is listed in table no. I

CONSTRUCT RELIABILITY AND VALIDITY

To ensure about the validity of the construct, researcher has to check both the convergent and discriminant validity. For ensuring that the constructs which are predicted to be related are actually related or not, convergent validity is tested. Discriminant validity is used in ensuring whether constructs which are assumed to be unrelated are actually unrelated or not. If the value of CR more than 0.7, and the value of AVE is greater than 0.5 and the value of CR is also more than AVE then , convergent validity is assured. If the values of $AVE > MSV$ and $AVE > ASV$ then there is a case of discriminant validity. The calculated value for this model in table no.1 indicate that both conversant and discriminant validity exist.

Table 1: Reliability and Cronbach Values

Construct	No. of items	Alpha Value	AVE	CR	MSV
Financial Literacy	7	0.941	0.718	0.946	0.88
Mobile Banking Penetration	5	0.971	0.861	0.969	0.874
Financial Inclusion	5	0.971	0.874	0.972	0.88
Development	5	0.975	0.881	0.947	0.839
Social Capital	4	0.972	0.912	0.976	0.269

(Source: Research Output)

The above table highlights the reliability statistics of each construct which is used in the analysis of the study. Since the alpha vale is greater than 0.7 for all constructs i.e. FL (.941), Mobile banking (.971), Financial Inclusion (.971), Development (.975) These values indicate that there is an internal consistency between the statements used to measure a factor /construct. Thus we can perform further analysis using these constructs. Discriminant and convergent validity of the constructs are also meeting the desired criteria as the AVE is greater than 0.5 and also CR is greater than 0.7. Since, discriminant and convergent validity are meeting the desired criteria, we can perform further analysis.

Table: 2: Reliability Statistics of Measurement Scale

Construct	Measurement Scale	Cronbach Alpha	Mean	SD	SRW	Factor Loading
Fiancial Literacy	FL1	0.941	3.45	1.247	0.544	0.465
	FL2		3.59	1.309	0.871	0.768
	FL3		3.731	1.2263	0.911	0.82
	FL4		3.42	1.015	0.862	0.775
	FL5		3.32	1.066	0.869	0.751
	FL6		3.741	1.2160	0.923	0.842
	FL7		3.71	1.201	0.89	0.79
Mobile Banking	MB1	0.971	3.635	1.3280	0.975	0.865
	MB2		3.71	1.330	0.866	0.78
	MB3		3.690	1.3479	0.963	0.834
	MB4		3.68	1.312	0.868	0.79
	Mb5		3.624	1.3097	0.962	0.856
Financial Inclusion	FI1	0.971	3.52	1.434	0.936	0.679
	FI2		3.82	1.236	0.932	0.76
	FI3		3.731	1.1968	0.929	0.757
	FI4		3.569	1.5225	0.946	0.718
	FI5		3.741	1.1776	0.932	0.751
Development	D1	0.972	3.553	1.5855	0.953	0.759
	D2		3.574	1.2376	0.922	0.824
	D3		3.695	1.3204	0.926	0.813
	D4		3.320	1.4688	0.96	0.751
	D5		3.685	1.2341	0.931	0.797
Social Capital	SC1	0.975	3.132	1.4579	0.942	0.917
	SC2		2.827	1.6290	0.962	0.882
	SC3		3.051	1.4133	0.973	0.953
	SC4		3.051	1.4525	0.943	0.946

(Author's Own Output)

The above table shows the factor loading of each statement along with standardised regression weights and mean and standard deviation. The factor loadings of each statement is above the threshold limit of 0.5 which signifies that factor is extracting sufficient variance from the statement. This suggest that each statement is having good or significant relationship with the factor obtained. Seven

statements are leading to one factor named Financial Literacy, whereas five statements are leading to one variable named mobile banking, five statements are framing one variable named financial inclusion, four statements are used in the development factor and social capital factor. The above table also displays the mean and standard deviation of each statement. Since the mean value for statements are close to 3, it implies data is not skewed in the formation.

Table 3: Correlation Table

	Mean	SD	Gender	Age	Monthly Income	SC	DV	FI	MB	FL
Gender	1.5939	0.49	1							
Age	2.05	0.82	0.048	1						
Monthly Income	2.31	0.77	0.086	.341**	1					
SC	2.8914	1.36	0.091	0.0077	0.008	1				
DV	4.0824	1.5	0.043	0.0471	-0.068	.449**	1			
FI	3.2372	1.09	0.037	-0.004	-0.092	.530**	.933**	1		
MB	3.6354	1.25	0.079	0.0035	-0.131	.482**	.831**	.946**	1	
FL	3.4961	1.05	0.059	0.0014	-0.115	.522**	.874**	.959**	.955**	1

(Author's Own Output)

The table above highlights the degree of correlation between different constructs. The r value between FL and FI (.959), FI and DV(.933), SC and FI (.530), SC and FL(.522), MB and FI(.946) respectively. All the correlation values between different constructs show a positive relationship.

Table 4: Model Fit Indices

Fit Index	Goodness of Fit Index (GFI)	Comparative Fit Index (CFI)	Tucker-Lewis Index (TLI)	Chi-square/degrees of freedom (CMIN/DF)	Root Mean Square Error of Approximation (RMSEA)
Achieved Value	0.744	0.931	0.922	3.096	0.103
Accepted Threshold Levels	>0.80	>0.90	>0.90	As high as 5.0	< 0.07
	(Mac Callum & Hing, 1997)	(Hu and Bentler, 1999)	(Hooper et al., 2008)	(Kline, 1998)	(Stinger, 1990) And between 0.08 to 0.10 (MacCallum et al., 1996)

(Author's Own Output)

The proposed model was tested using Structural Equation Model. The path analysis has significant role in deciding the model fit of the study. The value of different model indices like the Goodness of Fit Index (GFI), Chi-square/ degrees of freedom (CMIN/DF), index named the index of Comparative Fit Index (CFI), along with the value of another index named Tucker- Lewis Index (TLI), and value of Root Mean Square Error of Approximation Index (RMSEA) were considered to validate the model fit. For the path analysis, it is found that values for indices of model fits are as per the recommended level. From table it can be identified. The values of Goodness of Fit Index (GFI), the result of Comparative Fit Index (CFI), along with the value of Tucker- Lewis Index (TLI), and the Chi-square/ degrees of freedom (CMIN/DF) and also the value of Root Mean Square Error of Approximation (RMSEA) are all as per the decided criteria. Hence it is found that the model is fit with given data. The values achieved for Goodness of Fit Index (GFI) is.744, the result of Comparative Fit Index (CFI) is.931, along with the value of Tucker- Lewis Index (TLI)is.90, and the Chi-square/ degrees of freedom (CMIN/DF) is 3.096 and also the value of Root Mean Square Error of Approximation (RMSEA) is.103.

Table 5: Regression Results

IDV	DV	R	R square	Adjusted R square	Std. Error of the Estimate	Durbin Watson	F	Sig.	Hypothesis
FL	FI	0.959	0.92	0.92	0.30774	1.75	2242.2	0	H1 supported
FI	DV	0.933	0.087	0.869	0.54068	2.047	1303.56	0	H2 supported

(Author's Own Output)

First, from the table VI it is evident that FL has significant impact on FI, where r square (0.920), se (0.30774), f (2242.20) and $p < 0.05$. Also, it is clear that FI also plays a significant role in DV as r –square (.870), se(.54068), f(1303.55) and $p < 0.05$. Thus, the results from above table shows that, there exists significant association between the level of Financial Inclusion and the degree of Financial Literacy and the extent of Development and Financial Inclusion as the value of statistics i.e. f value is coming out to be significant as its value is greater than 4 and p value is significant. Through the above results hypothesis 1 and 3 are supported in the study as significant relationship is established between the variables.

In regression analysis, if the association between two variables is dependent on the presence of a third variable, then it is known as moderation analysis and the variable which is impacting the association externally is known as a moderator in the analysis.

To test the moderation effect of penetration of mobile banking and Social Capital on the above calculated association at midlevel of Financial Literacy and the extent of Financial Inclusion and

between extent of Financial Inclusion and level of Development, hierarchical regression was run with calculated Z scores of the variables and interaction effect was checked.

Table 6: Hierarchical Regression Results for Checking Moderating Role

Path	Interaction Effect	Standard Error	Standardized Beta	t- value	p-value
FL-> MB -> FI	0.237	0.1	0.179	2.376	0.018
FI ->SC->DV	0.21	0.037	0.198	5.754	0

(Author's Own Output)

The above table shows the moderation results of the study. The moderating role of mobile banking in the relationship between financial literacy and financial inclusion is coming out to be significant as the interaction effect is significant and value of t is greater than 2. This shows that with the penetration of mobile banking facilities, more and more people are holding bank accounts and are actually reaping its benefits. The moderating role of social capital is also significant in the relationship between financial inclusion and the level of development as again here the interaction effect is significant. The result of the study indicates that interaction is significant (.000) which signifies that third variable significantly influencing the relationship between independent and dependent variable. Thus, from the results stated in table no. VII, we can conclude that there is a moderation effect of mobile banking penetration on the financial literacy level and the extent of financial inclusion and also of social capital on the association between the extent of financial inclusion and the level of development. Thus, hypothesis 2 and 4 are also supported and accepted in the study.

Table No. 7: Mediating Role of Financial Inclusion (FI) on Financial Literacy (FL) and Development (DV)

Path	Direct Effect	Indirect Effect	P value	LLCI	ULCI
FL -> FI -> DV	-0.3592	1.601	0.0053	-0.6103	-0.1078

(Author's Own Output)

The mediation analysis shows that Financial Inclusion mediates the relationship between financial literacy and development of the nation as both the direct and indirect effects are significant. Besides these, there is no zero present between the lower and the upper limit of confidence interval which signifies the presence of a significant mediation impact of the variable. (Jaccard & Jacoby, 2010). In the mediation analysis both i.e. direct and indirect effects are present we can come to the conclusion that financial inclusion partially mediates (Jaccard & Jacoby, 2010) the relationship. Financial literacy is a factor which is very important in a person's life and financial well-being. If a person is financially stable, he/she can contribute more significantly in the development of the

nation. This situation is further strengthening with the help of financial inclusion as higher the level of financial inclusion in the country more will be the development prevailing in the country (Mandira Sarma, Jesim Pais (2008) Allen, Carletti, Cull, Qian, Senbet, Valenzuela (2014) Gabor, Daniela and Brooks (2017)). This is supported by the above results of mediation analysis.

DISCUSSION AND CONCLUSION

The study finds significant relationship between financial literacy and financial inclusion and financial inclusion and development of the nation. Also the moderating effect of the mobile banking on the relationship between financial literacy and financial inclusion and of the social capital on the relationship between financial inclusion and development was justified in the study. Partial mediating role of financial inclusion was also noticed on the relationship between financial literacy and development of the nation. The empirical findings of the study give a clear understanding that the result indicates a significant positive association between the extent of financial literacy level and financial inclusion as concluded by many researchers (Atkinson, Messy (2013) Klapper, Lusardi, Oudheusden (2015)). The study also suggest that there is a significant relationship between Financial inclusion and Development, same as being concluded by other researcher (Gabor, Daniela and Brooks (2017) Babajide, Adegboye, Omankhanlen (2015) Shetty (2008)). As concluded by these authors in their studies similar findings have been indicated by this research also. Furthermore, the moderating role of both the variable is coming out to be significant as the interaction effect is significant (.000). The results of moderation effect of mobile banking penetration on the financial literacy level and the extent of financial inclusion is

found to be similar with the previous studies of Donovan (2012), Etim (2014), Hughes (2007), Lal, Sachdev (2015) and also the moderating role of social capital on the association between the extent of financial inclusion and the level of development is significant as found in the previous work of Guiso, Sapienza, Zingales (2000), Candiya, Bongomin, Ntayi, Munene, & Nabeta, (2016). It is a major finding as this finding can be used by policy makers to formulate strategies to promote use of mobile banking. Although government has started promoting digital banking or mobile banking as it itself has started using electronic methods. The government can also take initiatives to promote mobile banking as they have started paying salaries, collecting revenues using digital modes. All these measures will improve the extent of financial inclusion and thus development of the nation. The mediating results of the study are in assonance of the findings of the previous researches wherein Mandira Sarma, Jesim Pais (2008) Allen, Carletti, Cull, Qian, Senbet, Valenzuela (2014) Gabor, Daniela and Brooks (2017) stated that there exists a strong association between financial inclusion and development. With the help of this finding the policy makers, concerned bodies can make requisite steps to promote or increase the level of financial inclusion along with due emphasis on financial literacy to increase the level of development.

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FLU-CONOMICS AND ITS IMPACT GLOBALLY WITH SPECIAL STUDY HOW TO OVERSTRIP FROM THIS GRIM FOR INDIA

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ABSTRACT

The outbreak of coronavirus, named as COVID19 by World Health Organization (WHO) has stunned all the nations. This has shown that the world is not prepared for such kind of biological threats. Every nation is trying to mitigate the challenges posed by this disease in their capacity but there is no ray of hope to come out from this crisis. Lockdown and social distancing has posed numerous challenges and affecting the various sectors. Unemployment is at its peak within few months since the outbreak of this pandemic. So, this paper has tried to analyzed the economic impact on GDP across the globe with special reference to its effect on India. The sectors on which it has the maximum impact and those on which this pandemic has the least effect is also studied. On the basis of the study undertaken in reviving the economies from the recession of 2007-08 a concrete model has been reframed that can help the nation in overcoming the grim of COVID19. So this study has tried to discuss the economic impact on the nation but also tried to provide the solution from overcoming of this problem that can help the countries to again revive their economies.

Keywords: COVID19, Global, GDP, Pandemic

INTRODUCTIONS

“Stop it at the start; it is late for medicine to be prepared when disease has grown strong through long delays.” (Ovid, around 17 AD) (Bloom & Canning, 2006)

The word flu-conomics is coined by (Begley, 2013) to study the impact of global pandemics especially SARS (Severe Acute Respiratory Syndrome) on the economic system. Coronavirus named as COVID19 by WHO that was originated in China in 2019 is now throttling the global economy. Economists are forecasting the impact of this virus is much greater than that of the global depression of 2007-08 and other historical pandemics. This contagious disease has forces the both developed and developing economies to shut their doors nationally without any outside intervention. This disease has already taken lakhs of lives globally but still no one knows the end towards this disastrous pandemic. The economic effects of this pandemic can be seen worldwide now. Various manufacturing industries has been shut down, crude price, empty restaurants, low internal and negligible external trade, declining

crude rates, widened fiscal deficit of the nation etc. India has taken the bold decision of lock down to maintain social distancing timely before this deadliest disease will reach across the nation. Undoubtedly, India has managed to control the disease in its limit but at the cost of life the nation has to be ready to face the economic distress in the coming years. The lockdown has impacted the nation from demand side, supply side and international trade. However, Government of India has also announced a good number of fiscal stimulus to boost the economy and to help the affected people but this fiscal stimulus will directly increase the fiscal deficit of the nation. This paper has tried to show the impact of this disease globally with special reference to India. Moreover, this paper will come forward with the concrete model to boost the economy in the coming years after analyzing the in depth literature review.

RESEARCH OBJECTIVE

This pandemic has slaughtered various lives across the globe and also impacting the global economies. This study is undertaken with the primary motive to study the decline in global GDP along with the special study on India. This paper will try to analyze the impact on various sectors and external trade with respect to India and will also try to give the recommendations how to overcome from the coming economic crisis by providing an economic redefining model.

Various institutions like FICCI, KPMG, McKinsey, UNCTAD etc. have published their reports on the impact of COVID globally but this study will analyze the feasible

recommendations along with global impact and its relation to India to put forward to the concerned authorities of India.

HISTORY AND EFFECTS OF GLOBAL PANDEMICS

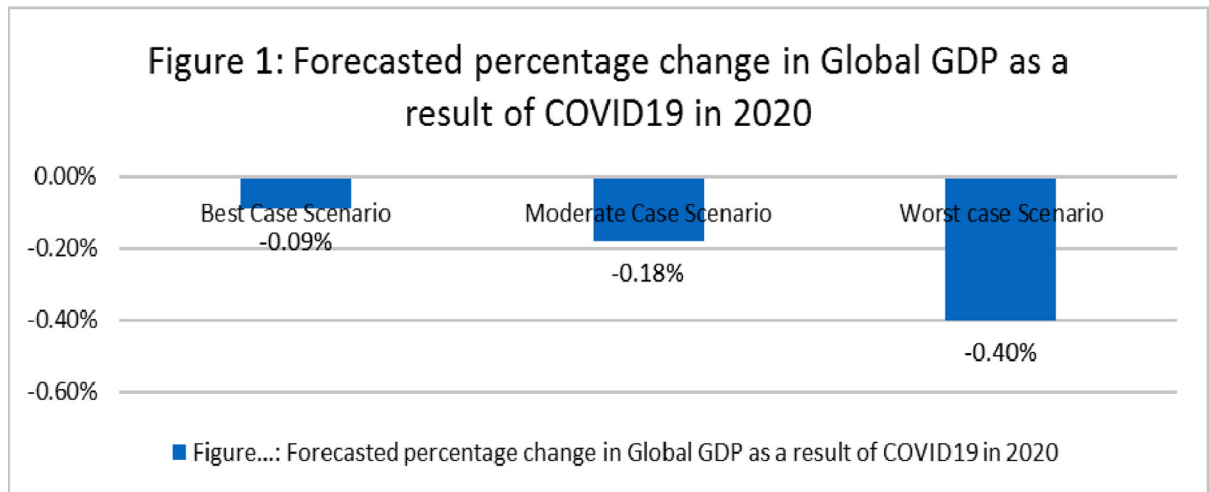
History and effects of global pandemics: Infectious diseases and its impact on the human being is prevailing since centuries. Nowadays when the economies across the globe are interlinked with each other, it poses numerous challenges along with the various benefits. Recent pandemic of coronavirus named by WHO as COVID19 pandemic has hard hit almost all the countries in the world. The disease originated in China in the city of Wuhan and now spread across the globe (Fernandes, 2020). But this kind of infectious disease spread is not new to the mankind. (Baldwin & Mauro, 2020) discussed the history of diseases in his report in which they have categorized 3 global pandemics in the 20th century namely 'Spanish Influenza 1918', 'Asian Flu 1957', 'Hong Kong Flu 1968'. In 21st century before COVID19, history of mankind has witnessed four pandemics namely N1H1 bird flu in 2009, Severe Acute Respiratory Syndrome (SARS) in 2002, Middle East Respiratory Syndrome (MERS) in 2012 and Ebola in year of 2013-14. Among all these Spanish Flu had hard hit USA as because of this disease millions of lives have been affected and lakhs of people have lost their lives.

GLOBAL IMPACT OF COVID19

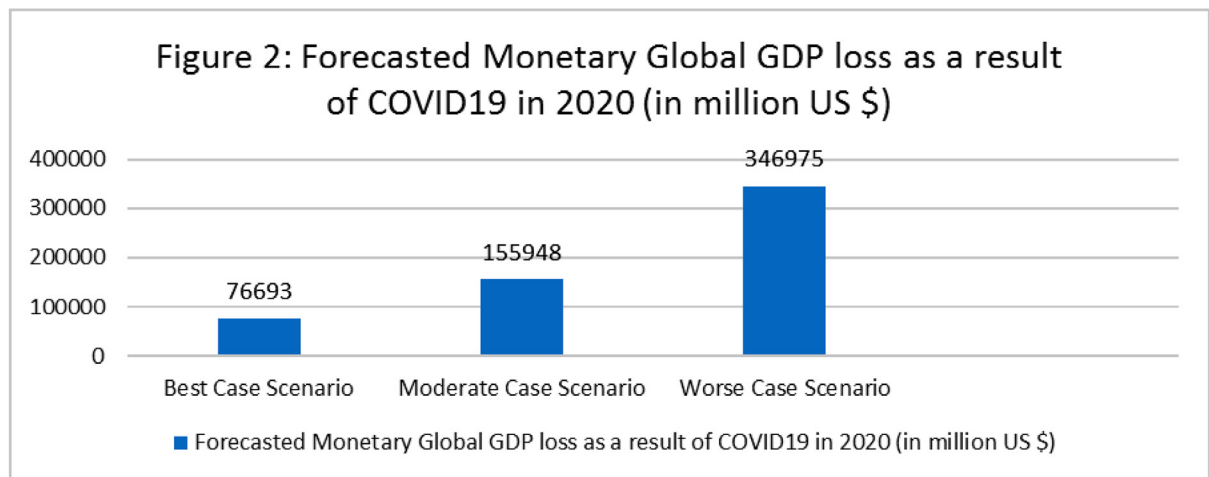
The pandemic of COVID19 that incepted in China in December 2019 is now affecting maximum nations across the globe and

experts comment that economic downturn is inevitable due to the lockdowns and social distancing measures taken by Government of various countries (Anderson, Heesterbeek, Klinkenberg, & Hollingsworth, 2020) (Atkeson, 2020). After hard hitting the Chinese economy because of the stringent lockdown of

three months now various developed countries are undergoing from this shock (Baldwin & Mauro, 2020). The below data clearly shows the decreasing trend forecasted Global GDP as a result of COVID19 in best case scenario, moderate case scenario and worst case scenario:



Source: (Statista, 2020)



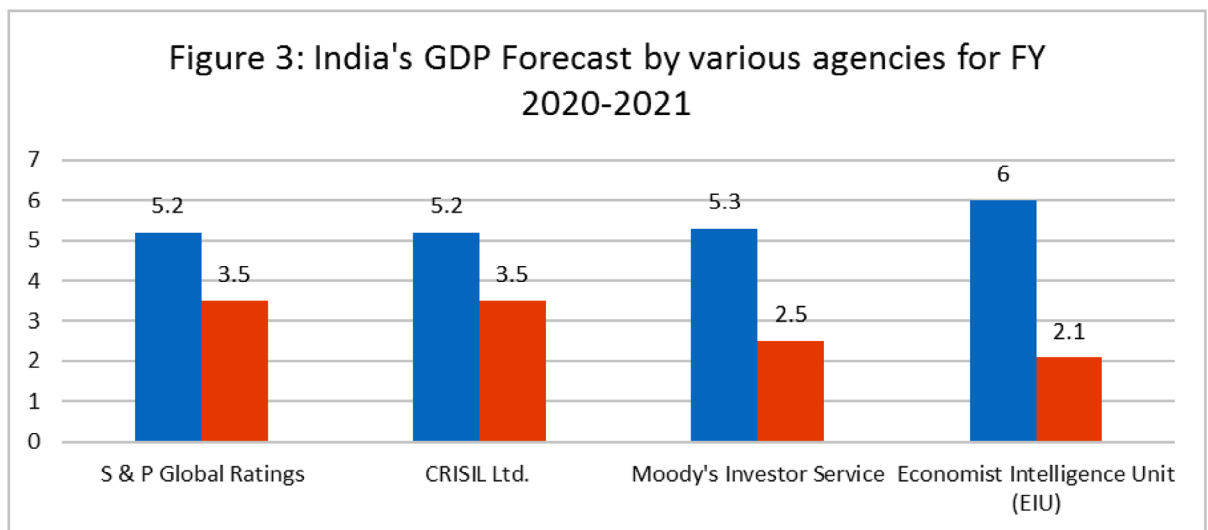
Source: (Statista, 2020)

Figure 1 clearly depicts that global GDP can fall from -0.09% to -0.40% due to this pandemic.

Figure 2 also shows that the loss in monetary GDP due to COVID19 is 76693 million US\$ if government of various nations are able to manage in less period of time but if it extend beyond 2-3 months the loss can be increased up to 155948 Million US\$ but if it extend up to 6 months the loss can be rocketed to 346975 million US\$.

FLU-CONOMICS AND IMPACT ON INDIA

The outbreak of contagious COVID19 in the city of Wuhan in China has crossed the borders of its national territory and reached to India in January and but it has spreaded its wings domestically in the whole nation in the month of March 2020. The central government has announced has announced whole country lockdown for fifteen days initially and after that the lockdown has been extended for more than a month. This bold decision of the central government has received the support from various countries but on the one hand it acts as life savior for the nation, while on the other it has impacted the nation negatively in various sectors (Ohri, Sitaram, & Gopalswamy et al., 2020). The below figure clearly shows the GDP forecast of India before and after impact of COVID19 on India:



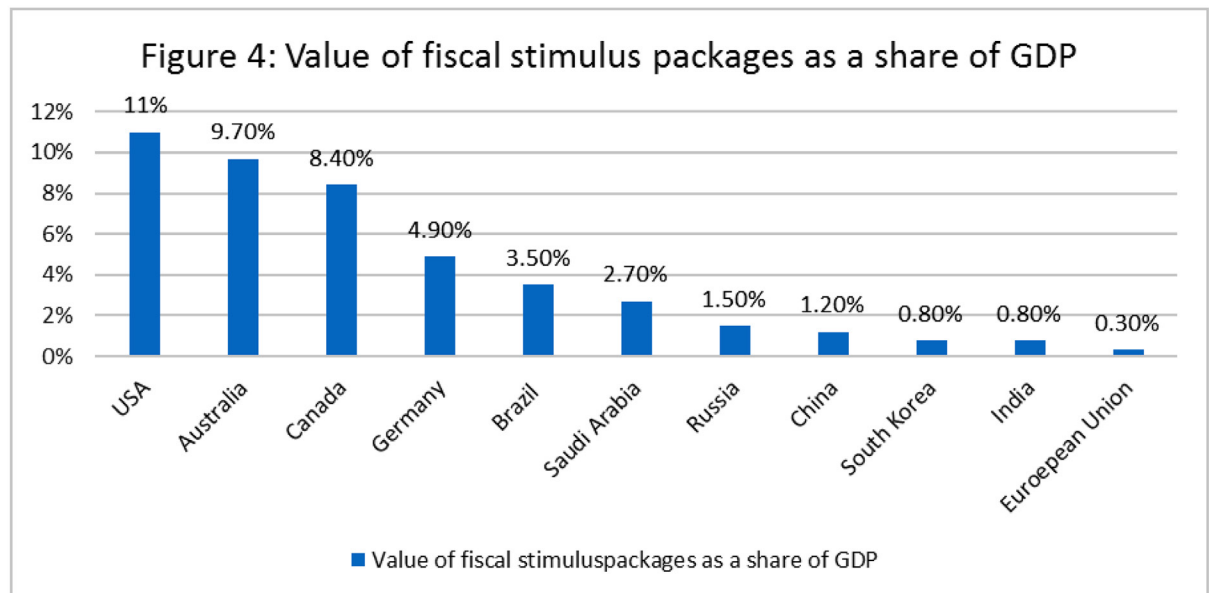
Source: (Boston Consulting Group, 2020)

The above figure depicts that every global analytics company has forecasted the downward trend for GDP of India, EIU has forecasted that the pandemic has the capacity to downturn the economy by 3.9%, while S & P Global Ratings and CRISIL Ltd has forecasted the GDP for the year 2020-21 to be at 3.5%. As consumption and investment demand is hampering due to COVID19 so it is also outstretching the Fiscal and Current Deficit of India.

Due to lockdown the employees are forced to work from home and manufacturing sector is at standstill, the jobs becomes more vulnerable due to this pandemic. As per the report of (ILO, 2020) the sectors that are having less impact of unemployment due to COVID19 are: education, human health and social work activities, public administration and defense, utilities. On the other hand the sectors on which moderate risk will be there agriculture, forestry and fishing, construction, financial and insurance activities, mining and quarrying. The sectors that are more vulnerable towards unemployment are accommodation and food services, real estate, manufacturing, wholesale and retail trade, transport, storage and communication. This pandemic will not only impact the Indian economy internally but it will affect the external trade of the nation. (UNCTAD, 2020) has stated that the trade impact due to COVID19 would be US\$348 million in this year.

RECOMMENDATION TO OUTSTRIP FROM THIS PANDEMIC:

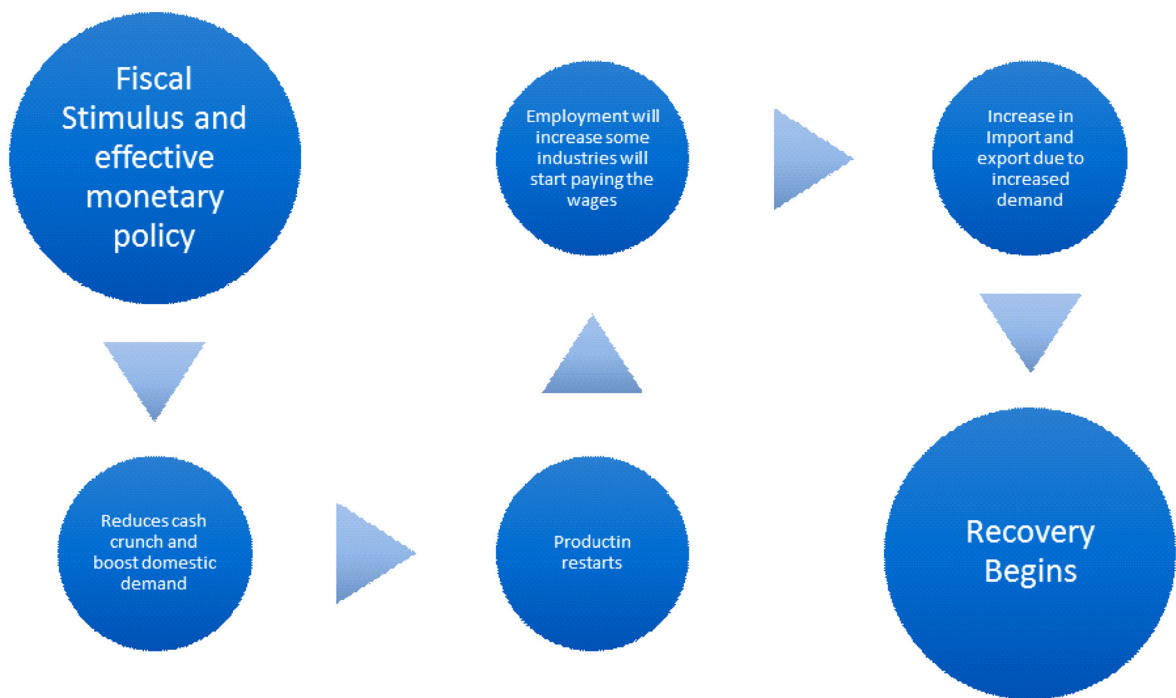
COVID19 patients are increasing drastically globally and has crossed more than 20 lakhs (Worldometer, 2020). This depressing figure is posing the challenges globally to revive the economic system. Layoff, retrenchment and fall of demand has already being started (Ohri, Sitaram, & Gopalswamy et al., 2020). This is the time when every economy is trying to push the demand with the help of fiscal stimulus. The below figure shows the value of fiscal stimulus package announced by various nations across the globe:



Source: (Statista, 2020)

Figure 4 depicts that USA has announced the maximum fiscal stimulus as compared to other nations, while India and European Union numbers are dissatisfying. India with the population of 1.3 billion, announced the stimulus package of 0.8% of GDP is really underwhelming (Dhar, 2020). Fiscal stimulus packages play a very important role in the revival of the economy and it has shown significant success in uplifting the economy from great depression after World War II or whether at the great recession of 2007-08 worldwide (Foster, 2009). Liberal and sound monetary policy is also proved as an important factor in overcoming the economies from the 2007-08 recession (Jannsen, Potjagailo, & Wolters, 2019). So the effective combination of both monetary and effective policy can be helpful in overcoming this slack due to COVID19. A model has been developed for this purpose in outstripping the economy from the coming year crisis is as follows:

Figure 5: Recovery model from pandemic COVID19



Source: Self compiled

The above recovery model suggests that with the help of sound fiscal and monetary policy in appropriate amount in the economy will reduce the cash crunch in the economy and with the help of transfer payments and reduction in interest rates will boost the consumption and investment

demand in the economy. Increased demand will kick start the production in the economy that will lead to more employment opportunities and the existing production houses will be in the position to pay the wages to the existing employees. If the government is able to cope up with this pandemic timely, the restriction on social distancing can be relaxed and with this global trade and travelling can restart again and with this country will be able to preserve the export import activities that will recover global demand and overall within the few years the recovery can be seen in numbers.

CONCLUSIONS

Since the World Health Organization (WHO) declares COVID19 a world health emergency in January 2020. This pandemic again has taken world of pre globalization when the boundaries of the countries are not vulnerable. The lock down and social distancing policies has forced the nations to close their doors towards other countries. This policy has not only impacted the trade activities domestically but it has a huge impact internationally as well. This paper has

identified the potential loss to the global GDP due to this pandemic along with its impact on Indian economy. Numerous sectors have been identified globally as well as domestically on which the impact of this pandemic can be seen directly and indirectly. This shows the economic slowdown is unavoidable and to overcome from this pandemic a recovery model has been designed through which the economies can again regain the momentum and the worldwide recovery can be secured.

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GDS XEROX: ADDRESSING THE RIGHT SEGMENT

-Dr. Ashraf Sheta visiting Assistant Professor at the American university in Cairo and Haya Samy.

ABSTRACT

Nowadays, several businesses are introducing new product lines or services, but are not correctly allocating their efforts to reach their target segments. Businesses are spending a lot of money on awareness through different platforms, but are they reaching the right segment? This case tackles a prominent issue that many businesses face today. GDS Xerox is a Xerox concessionaire company that does the following activities: selling printing machines and equipment, offering maintenance services, and has its own business centers offering printing services. The company recently introduced a new service in its business centers, which is selling customized giveaways (including mugs, coasters, etc.). GDS Xerox is indecisive about what efforts should it should allocate to increase sales revenue in the business services activity after introducing new services. The company is unsure which segment it is targeting with these new services. This leads to allocating marketing activities that target several segments without focusing on a specific segment to reach. Is it targeting companies or individuals? This also leads to a minimal increase in sales revenue, and low awareness as the target segment has not been decided yet. The idea of segmentation is crucial because companies have a certain budget to spend on marketing, and

indecisiveness about the target audience might prevent the company from reaching its target audience. Therefore, the company might not be able to achieve its objectives

THE PROTAGONIST

In the year 2000, Mr. Mohamed Samy, the general manager of GDS Xerox, was a sales employee at Xerox Egypt. After excelling in this field and achieving targets, he decided to start his own company, and have his own clients. Xerox granted him their license to become their concessionaire, to sell their products, and was given a list of key clients to handle. The company started with a very limited number of employees, which later increased gradually (Exhibit 1). Mr. Samy was faced with several challenges at the beginning, including gaining the customers' trust to deal with a private company rather than Xerox itself and building a strong database for the accounts in the given area. Another significant problem was training employees at the beginning to deliver a high-quality service and establishing a good reputation for the company. With his dedicated team, Mr. Samy was able to bypass these challenges and run the company successfully.

On January 10, 2018, the general manager, Mr. Mohamed Samy, was in a meeting discussing

different strategies for growth. In the meantime, the company is restricted by the protection law; it cannot expand its customer database. While discussing this issue, an idea sparked when he was thinking of introducing a new product line, the giveaways (Exhibit 2). These include customized mugs, coasters, notepads, key chains, t-shirts, and wooden frames. They can be customized where the customer chooses the image, and it gets printed immediately on the chosen product. However, the company faced an unexpected challenge that prevented GDS from reaching its expected goals in the first year after launching its new giveaways product line.

GDS XEROX PROFILE

GDS Xerox started with a few clients only. Later, after exerting efforts in increasing the number of clients, the company was able to include several important key customers in its database. GDS Xerox clients include Savola, El Sewedy cables, Hassan Allam, Australian Embassy, Saudi Arabian Airlines, and HNS group. In the previous years, it has been a trend that the business centers contribute 20% of the sales revenue. The sales revenue fluctuates with the economy of Egypt. The net profit of the company compared to its revenues is low. The company has very high expenses, which are 15% of the total revenues. Therefore, the new business service offered aims to increase the business centers sales revenue by at least 40% to increase net profit. GDS is trying to implement the vertical growth strategy, through introducing a new product, the giveaways.

Regarding the product/service profile, there are different products and service ranges offered. The Head Office activities include: Selling

Machines, supplies, and paper. On the Other hand, the business centers activities include: printing services, lamination services, and recently added the customized mugs, tableaus, coasters, mousepads, t-shirts, wall clocks, medals, and ceramics services and products. The business uses company must align with the strategy of Xerox Company. GDS also provides after-sales services and free maintenance for a whole year for its products. Xerox was the first in the printing industry to be perceived as an industry leader to the extent that the term “Xerox” was used as a verb for printing. This helps GDS because it is selling a brand that already has a strong reputation in the market.

PRINTING INDUSTRY FUTURE AND MARKET LIMITATIONS

GDS Xerox's primary supplier is Xerox Company. GDS places an order according to the client's request and must ensure that the lead time for the customer is adequate, and track the orders. In terms of competition, there are other concessionaires in the market that compete with GDS, and these include High Tech, Techno Office, Alex Print, ESOS, Future Document Technology, and NCX (Table 1). There are several barriers to entry, and with the spread of digitalization, the printing industry is shrinking because fewer people resort to printing. Today, everything is published and read online. Even photos are no longer printed and are stored on mobiles instead. Furthermore, high competitiveness is another obstacle; there are already many competitors in this private sector market and fierce competition. This is considered a barrier to entry because it will require new entrants to exert more effort in

establishing a unique selling point for entry. The Protection Law is another challenge for GDS Xerox. Xerox has a policy that prohibits any new entrants from dealing with clients in a competitor's area, and so, they are protected. This prevents GDS from increasing the number of clients in its database. The Printing industry is expected to grow due to the growth in packaging labels rather than graphic applications. There is an expected increase of 20% in the printing, packaging, and manufacturing exports to Europe. This is an opportunity for GDS because printing is a prominent source of revenue for the company.

Lately, the giveaways industry has been expanding since giveaways are an important tool in the marketing mix of companies. They are significant in increasing awareness of the brand and building brand equity. It is also a platform for enhancing relations with employees and clients. The supplier of the giveaways' products for GDS is Areej. The customer places an order through sending the image that will be printed on the giveaway, then GDS places an order for the product, receives the product from Areej, and proceeds with printing and delivering the final product to the customer. There is fierce competition in the giveaways market, and competitors include Nagada Production, Direction Advertising, Multi Office Supplies, El Safa For Import & Export, IMAGINA for 3D Printing Services, Touch Advertising, and Alfatimia Group. There are several barriers to entry in this industry, including that GDS is already known for printing services, so it might be challenging to change the consumer's perception about the services offered by GDS and introduce this new giveaway product line. Rebranding is required to achieve awareness.

Additionally, there are lots of competitors in the market with competitive prices. GDS has prices higher than the market players due to the high printing costs, and since it implements the premium pricing strategy.

FIERCE MARKET COMPETITION

There are global competitors for Xerox, which include Genpact, HP, Canon, Konica Minolta, IBM, Kyocera, Brother Industries, and Ricoh Company. In Egypt, the most prominent are Canon, HP, Konica Minolta, Ricoh, Kodak, Epson, Sharp Electronics, Toshiba, Dell, and Lexmark. Xerox is the market leader in Egypt and already has a good reputation in terms of high-quality services and products. It fills a significant gap in the market, which is offering high-quality printers and printing services to businesses in Egypt. That is why Xerox is widely used in business institutions. Concerning the local competitors, GDS is competing with four other concessionaires in Egypt.

Regarding the giveaways market, it is highly competitive in Egypt. The industry has been booming in the past few years, and giveaways are an integral part of people's lives, including corporates and individuals. People enjoy buying customized gifts with their photos on them. It is expected that the giveaways demand will increase in the next few years because companies are highly concerned with being recognized, and are ensuring their brand equity through their giveaways. Concerning individuals, the idea of buying customized gifts has been a trend that is vastly ongoing nowadays. People are trying to think of new creative gift ideas, and are shifting from the traditional gifts to the new creative giveaways. GDS provides a design service as well,

where graphic designers at the business centers can help clients in choosing and customizing their designs. This is the competitive edge that GDS is offering; it will provide a high-quality professional service, helping the client choose the design and even make the design for the client. The giveaways industry is fragmented because there is no monopoly or a player that has the majority of the market share. The key success factors of the industry include product range, distribution, warranty, payment methods, price, quality, after-sales services, and brand reputation (Table 2). Concerning its product range, GDS implements the vertical growth strategy by adding new products to its portfolio and enhancing the product variety aspect of the company. Concerning distribution, GDS is restricted to distributing in certain areas because of the Protection Law that Xerox implements. It offers its clients different payment methods according to the client's preference. There are credit payments, cash, cheques, etc. and clients are given adequate time for paying. Additionally, GDS offers free maintenance service for a year, as an after-sales service. This service is not offered by its competitors, making it a competitive edge for GDS. As a final point, the brand Xerox already has a strong reputation in the market, which is an opportunity for GDS, as the mother company is already handling the marketing and brand equity activities. GDS strives to ensure the premium quality of its products and services by training its employees and having a qualified quality inspection team. GDS depends heavily on promotions to compensate for the high prices. For instance, for the giveaways, it offers a promotion of buy one to get 50% off on the second and buy two to get one free. This promotion is constant and is implemented on

the giveaways. The competitors of GDS do not have this promotion, which enables GDS to have a unique selling point

IDENTIFY YOUR CUSTOMER

After introducing the new giveaways product line, GDS focused on online platforms for awareness. On January 18th, 2019, Mr. Mohamed Samy met with the business centers managers and discussed the new initiative. They decided to hire new graphic designers and create a page on Facebook called "GDS Art design" for the giveaways' products. They launched campaigns on Facebook, boosted posts, and sponsored ads on Facebook to ensure that their posts reach different target segments. When creating these online campaigns, GDS did not target a specific segment and randomly chose its target segment. After exerting effort and launching online campaigns, GDS still did not reach its objective. The page had very low traffic, and they received very few orders in the first few months. Although the company's objective was to increase the sales revenue by 40%, it increased by only 10%. Therefore, Mr. Mohamed Samy contacted a digital marketing agency to handle its online campaigns.

During their first meeting with the digital marketing agency, Mr. Mohamed Samy and the business centers managers were asked about their target audience for the giveaways. They were hesitant. They didn't know if they should be targeting corporates or individuals as a starting point. The digital marketing agency representatives mentioned that they cannot proceed without having an answer to this question, and were demanding a very high cost for managing the GDS Art design page. After

the meeting ended, Mr. Mohamed Samy and his team highlighted that the costs are very high, and decided to perform the new campaign in house rather than outsourcing. They had to plan a new campaign and think of another strategy to achieve the desired outcomes.

BLURRED VISION

Should the youth be their target market since they are interested in purchasing customized gifts? Or businesses that print their logos

on their notebooks, pens, etc. as below the line marketing? They previously decided to target several segments, which later proved to be inefficient, according to the results. They expected a high increase in revenue, but there was only a 10% increase. They created paid ads on Facebook, but did not receive any orders in the first few months. This leaves Mr. Mohamed Samy and the managers of the business centers in a challenge regarding what exactly they should change in their current marketing strategy.

Exhibit 1: GDS XEROX GIVEAWAYS



Table 1: Competitor Analysis
Printing Industry Competitor Analysis

	GDS	Alex Print	Esos Technology	Lotus trading	High Tech
Quality	High	Low	Low	High	High
Price	High	low	low	Reasonable	Reasonable
Distribution	•Head Office •Online Ordering • Exhibitions	Head Office	•Head Office •Online Ordering	Head Office	•Head Office •Online Ordering

Table 1: Competitor Analysis
Printing Industry Competitor Analysis

	GDS	Nagada Production	Direction Advertising	Multi Office Supplies	EL Safa For Import & Export,
Quality	High	High	Low	High	Low
Price	High	High	Low	High	Low
Distribution	• Head Office • Business Centers	Head Office	Head Office	Head Office	Head Office

Table 2: Industry Key Success Factors

Key Success Factors
Product Range
Distribution
Warranty
Contract Options and Payment Facilities
Price
Support & Maintenance
Brand Reputation
Total Score

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GST IN INDIA: PROBLEMS AND PROSPECTS

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ABSTRACT

The Goods and Services Tax (GST), implemented in India on July 1, 2017, has been regarded as the most significant milestone in the history of taxation since Independence. The GST was planned to be implemented in April 2010, but was postponed due to political issues and conflict of interests of the stakeholders. The main purpose of the GST is to simplify the taxation system by subsuming all sorts of indirect taxes like, Central Excise, VAT, Sales Tax, and Service tax and implement 'one nation one tax' system in India. The objective of the paper is to examine the working of the GST and its prospects in India. As GST has been recently implemented only recently, the full impact of the system is still awaited. The research is exploratory in nature, and uses secondary sources of data, including journals, newspapers, websites of various relevant authorities, etc. The conclusion being positive in tone suggest several ways through which the GST can be reformed.

INTRODUCTIONS

Recently, the Union Budget for the year 2020-2021, was tabled in Parliament by Finance Minister Smt. Nirmala Sitharaman. She made the announcement that a simplified return format would be introduced from April 2020.

She also said that the implementation of the GST had resulted in gains of Rs. 1 lakh crore to consumers, and also helped in removing the 'Inspector Raj.'

With the government focussing so much on the GST, it becomes imperative to examine the system. Therefore, before jumping into technicalities of the GST, we need to thoroughly examine the system.

The GST is a tax on goods and services under which every person is liable to pay tax on his output and is entitled to get input tax credit (ITC) on the tax paid on its inputs (therefore a tax on value addition only) and ultimately the final consumer shall bear the entire burden.

MODEL OF GST

1. The GST has three components: Central Goods and Services Tax (CGST), State Goods and Services Tax (SGST), and Integrated Goods and Services Tax (IGST). Excise Duty (levied on manufacturing), Service Tax (on Services), CST (on inter-state sale), Custom Duty (on imports) will fall under the CGST. VAT, Entertainment Tax, Luxury Tax, Octroi and Entertainment Tax, will be subsumed under the SGST.

2. The GST would be applicable to the transactions of all goods and services except for the exempted ones. Three items have been

kept outside the purview of the GST. These are: alcoholic products, petroleum products, and electricity. There are many goods and services that are to be taxed in the same as these were being taxed before the implementation of the GST.

3. Both the CGST and the SGST are applicable to intra-state transactions. In cases where the location of the supplier and place of supply are different, and also where the supply of goods and services is made to and by 'special economic zones', the transaction is assumed to be inter-state. In an inter-state transaction, a seller has to collect the IGST from the buyer.

WORKING OF GST

In order to appraise the working of the GST, we must know the supply chain. The supply chain is the process in which a product passes through many hands. For example, the product is first manufactured by a manufacturer, then it is supplied to a distributor, then to the retailer, and then finally to the consumer. The GST is levied on the commodity when it is passed from one stage to the other. Let us see how the working of the GST differs from that of the previous taxation system.

1. Manufacturer: Under the previous system of taxation, manufacturer had to pay two taxes before passing the product to the distributor. These were VAT and Excise Duty, which were levied on the cost of the product. However, under the GST, he has to pay only one tax, and also the tax has been somewhat reduced because there are fewer taxes now. For example, if the Excise Duty is 10% and VAT is 5%, then if the cost of the product is 100, the total cost of the product will be 115. Now under the GST, if

the tax is 10% (let's say), then the total cost of production becomes 110.

2. Distributor: In the previous taxation regime, the distributor received the product for Rs 115, to which he added his own profit margin (let's say 20%), plus the Service Tax (15%), and VAT (5%). These calculations are shown below:

Cost of Good Received	115
Profit@20%	+23
VAT@5%	+ 7
Service Tax@15%	+22
Total Price	Rs. 167

In the GST, the mechanism is much simpler. Profit margins are added to the cost of the product received from the manufacturer (Rs 110+ Rs 22), and then the GST @10% is levied, as shown below:

Cost of Goods Received:	110
Profit Margin @ 20%:	+22
GST @ 10%:	+13
Total Price	Rs 145

Thus, there is a benefit of Rs. 22 (Rs 167- Rs 145) to the retailer under the new system, which ultimately gets passed on to the consumer.

3. Retailer: Let's examine how the earlier system differed from the present one in transferring the benefits to the final consumer. The retailer receives the product for Rs 167, to which he adds his profit margin (@20%), VAT (@10%), and Service Tax (@ 15%):

Cost of Goods Received:	167
Profit Margin @ 20%:	+33
VAT @ 5%:	+10
Service Tax@ 15%:	+32
Total Price	Rs 242

Under the GST regime, again the calculation becomes much simpler.

Cost of Goods Received:	145
Profit Margin @ 20%:	+29
GST @ 10%:	+32
Total Price	Rs 191

Comparison of the final prices, under the previous taxation system and the GST, shows the benefits received by consumers. In the above example, the consumer derives a benefit of Rs 51 (Rs 242- Rs 191), due to the introduction of the GST. Thus, not only manufacturers, distributors, and retailers are benefitted, but also the final consumers, because of the introduction of the GST (Nayyar and Singh, 2018).

Another example, is shown in Figure 1. Here the thing that needs to be noted is the INPUT TAX CREDIT SYSTEM, which is the backbone of the GST. The Input Tax Credit helps to avoid the cascading effects of the taxation system.

In the given figure, the wholesaler receives the goods for Rs 11,800. These prices already include the GST which was levied when the goods were passed from manufacturer to wholesaler. Now if the GST is levied on Rs. 11,800 when goods are passed from wholesaler to the retailer, it will be a tax on tax. To avoid this, the GST will be levied only on the value added, i.e., on Rs. 10,000(11800-1800). The wholesaler adds value of Rs 5,000, making the basic price equal to Rs. 15,000. This price does not include the GST, and now the GST will be levied on this Rs. 15,000. Since value addition is cumbersome to calculate for each element of the supply chain, the input tax credit system helps. The wholesaler thus gets an input tax credit of Rs. 1800. We can see the magnificence of this system, which has solved a multitude of problems, including the understandability of the tax system.

Figure 1: Illustration Of GST Vs Current Taxation System

(INR)	Current System	GST
Manufacturer		
Cost of goods	0	0
Add: Value addition	10,000	10,000
Basic price	10,000	10,000
Add: CENVAT@ 12.5%	1,250	0
Add: GST@ 18%	0	1,800
Total price	11,250	11,800
Wholesaler/distributor		
Cost of goods	11,250	11,800
Less: Input GST credit	0	(1,800)
Add: VAT@ 12.5%	2,031	0
Add: GST@ 18%	0	0
Total price	18,281	17,700

Retailer		
Cost of goods	18,281	17,700
Less: Input VAT credit	(2,031)	0
Less: Input GST credit	0	(2,700)
Add: Value addition	2000	2000
Basic price	18,250	17,000
Add: VAT@ 12.5%	2,281	0
Add: GST@ 18%	0	3060
Total price paid by consumer	20,531	20,060
Total value added	17,000	17,000
Total taxes paid	3531	3060
Effective tax rate (% of value addition)	21	18
Source: ICICI Bank Research		

BENEFITS OF GST

After examining the working of the GST, and seeing the different tax rates, it is important to discuss the benefits. Without looking at the benefits, we can never be sure of the implementation of the GST as a sound step.

The GST brings benefits to all stake-holders, viz, industries, government and citizens. It is expected to lower the cost of goods and services, making them more competitive globally. The concept of 'one nation one tax', inherent in the GST, will make markets unified, and will pave the way for an integrated economy. The GST has been designed in such a manner that it will allow for cross utilisation of input tax credit at each stage, thereby avoiding the cascading effect of taxation. The GST will give impetus to the 'Make in India' programme floated by the government in 2014, as the goods will become more competitive in the national and international markets (Amutha,2018). Imports from abroad will be charged with the IGST, and

since the IGST is almost equal to the CGST plus the SGST, there will be parity between local goods and the imported ones. Under the GST, exports will get a boost. The principle of taxing only the cost of production will be followed. Exporters are being granted with a 90% refund within 7 days of their acknowledgement of their application. The GST is expected to increase the tax base, leading to an increase in the revenue collected by the government of India. The GST is also expected to increase the Indian GDP from 1.5% to 2%. The GST is largely technology driven. The interface of the tax payer with the authorities is through a common portal (GSTN). All processes, be it of applying for registration, filing of returns, payment of taxes, filing of refund claims, etc, will be done digitally through the portal of GSTN. This will encourage a culture of compliance, making the system transparent and accountable. Average tax burden on trade and industry is likely to come down, boosting consumption (S.K.

Singh,2016). Evaluating the benefits in more detail will give us more clarification as to why the GST is hailed as the most major tax reform since independence.

1. Facilitating The Inter-State Trade In Goods

For India to become a common market, it was necessary to remove inter-state barriers. With the removal of inter-state check posts, the long overhaul of cargos would come to an end. A study commissioned by the Ministry of Transport and Highways found that a truck typically spent around one-fifth of its total travel time between two states at border check-posts before GST was implemented. Post GST, trucks are covering more distance. They used to cover only 225 km per day, whereas now they cover distance of around 325 km per day, which is an increase of 44%. The introduction of e-way bills will further facilitate the movement of goods inter and intra state. However, the success of it will depend upon the online platform, which must have the capacity of dealing with peak-load situations. After the GST rollout, India successfully jumped 19 positions (35th from 54th) in the Logistics Performance Index. Logistics is primarily an unorganised sector activity in India. GST is likely to nudge unorganised logistics companies to move into the formal sector.

2. Shift From Informal To Formal Sector

In the past, the government had little data on small manufacturers and consumption because the excise duty was levied at the stage of manufacturing, while state had little data on local bodies outside their borders. Under the GST, there will be seamless flow of data to both the centre and the states, making direct

and indirect tax collection more effective. Transactions which were not recorded earlier, are now recorded easily with the help of online platform created by GST(GSTN). Registrations of indirect-tax payers have almost doubled in a year from 6.2 million in the pre-GST days.

3. Improving Public Finance

Increasing compliance and encouraging formalisation have helped in improving the public finance. The tax-to-GDP ratio had touched 11.35% in FY18, the highest since FY09. The revenue collection is expected to increase further during FY19 due to improved tax collection (Moid, 2018).

4. Benefit To Fmcg And Real Estate

The Fast-Moving Consumer Goods (FMCG) sector posted a growth of 13.5% in the FY18. Eight of the top ten companies registered a double-digit growth after a period of five years. While many factors would have contributed to their growth, GST is undoubtedly one of them. The simplified tax structure has allowed FMCG Companies to launch different varieties of the product, within the realm of the GST slabs, as notified by the GST Council (Nayyar and Singh, 2018).

During the last six months, there has been revision and reduction of several tax rates to control inflation and rationalise the slabs. As a result, many items used as inputs in the food processing industry are exempted from taxation. The highest tax rate of 28% is restricted to only few items, and demerit goods like pan masala, cigars, and cigarettes.

Real Estate has also gained from the implementation of the GST. Constructors are now able to avail the input tax credit on the previously paid taxes on purchase of

construction material and services. The initial months of the GST implementation were full of confusion. On the one side, suppliers were unsure of the input tax credits that they would get, and on the other side, customers were unsure of the benefits. Later things became clear, and developers started passing 4-6% discount to the customers.

LIMITATIONS OF GST

The very law that makes GST as the most successful reform, also bestows upon it certain limitations or challenges that we will have to address in future. Some of the limitations are discussed below.

1. Increased Costs Due To Software Purchase

Businesses have to either update their existing software, or purchase a new one, which is compliant to the GST. Either way, the cost will increase, if firms want to keep doing business. Also, it requires training of employees for filing of return, or any other procedure, which may increase the total cost for the firm. However, the requirement of such a software (GSTN) was essential, and its benefits outweighs the costs.

2. Not A 'One Nation One Tax' In Spirit

An ideal GST would have been where only one law were framed for the entire country, and only one governing body would have regulated the GST. However, this is not the case, as different GST laws are there for different states. For example, Gujrat GST is different from Maharashtra GST. If a firm has business operation in both the states, then the firm will have to register in both the states, and follow the GST procedures in both the states separately.

Some experts claim, that it is just an old wine in an old bottle with a new label.

However, such claims are futile, seeing the length and breadth of the country, it would have been very difficult to apply a single law for the entire nation, in which case it would not have accommodated the spirit of diversity.

3. Hurried Implementation Of Law

The GST has been the largest taxation reform since independence. It is noticed that the government has somehow hurried its implementation. Many business houses and tax experts warned the government of its implementation and suggested 1st of October for implementation of the GST. However, the government without paying any heed went ahead with its implementation. Resultantly, there was confusion among industry, trade, professionals, and even government officials. Even today, there are some aspects of the GST which lack clarity. As a damage control mechanism every time a new notice, circular, or notification, is released regarding the law, it only adds to the confusion. This is the biggest disadvantage of the GST, and could have been avoided if more patience were shown in its implementation.

4. Blocking Of Working Capital

Working capital is the fuel of every business. It is the money available for company's day-to-day operations, and it also reflects the company's financial viability and health. Exporters have faced the burnt, with refunds being blocked so much that post 200 days of implementation of the GST, exporters are not able to claim refunds smoothly. Same is the position for traders, who are not able to claim refunds due to the non-availability of various forms.

CONCLUSIONS

While the implementation of the GST has been a historical event, it still needs some improvements. People have to become more aware of its working, and the government must effectively spend more money on its administration. The input credit system must also improve in case of exports, and exporters must get seamless flow of credits. More GST centres must be set-up as to assure better services

to people regarding the GST. Also, it seems that the tax slabs can be rationalised. Necessities can be taxed at 5%, while another suitable tax rate can be chosen for other commodities. This will make the GST simple, and move it towards the 'one-nation one-tax' principle. Finally, the GST is for the benefit of India, and it is expected to raise the Indian GDP growth from 1% to 2%. Though mix results have been obtained in case of other countries (after the implementation of GST), we hope for better results in India.

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IMPACT OF DEMOGRAPHIC VARIABLES ON THE CUSTOMERS' CHOICE OF DIFFERENT MODES OF BANKING TRANSACTIONS IN ODISHA

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ABSTRACT

The customers have several options to carry out their banking transactions. They can either go to branch to carry out their transactions, use their ATM debit card, use their credit card or internet banking, mobile banking etc. This study aimed to study the impact of demographic variables of the customers on their choice of different modes of banking transactions and also their preferred mode of transaction. For this purpose a questionnaire was developed and distributed to 400 customers from private banks in Cuttack, Bhubaneswar and Rourkela out of which 291 were completed and returned yielding a response rate of 72.8%. In this research the impact of four demographic variables was studied, they are gender, age, occupation and income. The modes of banking transactions which were selected in this study are branch, ATM card, credit card, internet banking and mobile banking. The responses obtained were analysed using t-test and one way ANOVA. In this study it is observed that in case of demographic variable

‘gender’ it was only in case of usage of credit card for bank transaction where there is no significant difference regarding the opinions of male and female respondents. In the case of the demographic variable ‘occupation’ it was only in case of ATM card transactions, there is no significant difference regarding the opinions of the respondents from various occupational backgrounds. ATM was found to be the most preferred mode of banking transaction by the respondents so the intervention of bank employees are required so that the transaction through other modes like internet banking, credit card and mobile banking could be increased.

Keywords: Demographic variables, Banking transactions, t-test, One way ANOVA, ATM

INTRODUCTIONS

The banking and financial services sector is in a position today to benefit most by leveraging technology and is a sector that has absorbed the technology to a great extent. Now-a-days

a condition has reached in which this sector cannot survive without the support and application of information and communication technology. Though these technological changes have opened up in India by new private sector and foreign banks, now such a situation has been reached where even the traditional banks in the public sector and old private banks are also adopting the technology enabled banking self services. All banks in India have realized in the post-liberalization era that in order to remain competitive and to provide the better services to their customers, they need to be ready with the latest technology. Irrespective of the ownership status of the commercial banks (nationalized or private sector), almost all of them have given maximum importance to technological development and deployment. ATMs, plastic money, online collection and payment services, electronic fund transfer and clearing services, mobile ATMs, document management systems, smart cards, core banking solutions, branch networking, internet banking and mobile banking are all outcomes of their initiative of technological up gradation (Upadhyay et al., 2008).

In banking, in the past, the technology strategy was considered as a subordinate to business strategy. But now with so much advancement in technology, banking has become as important as business strategy. Technology has provided an altogether new way of interacting and providing service to bank customers rather than merely replicating activities of the bank employees (Godse, 2005). Now several modes of banking transactions are available to the customers like doing the transaction in the branch itself, using of Automated Teller Machines, Internet Banking, Credit/Debit cards, Mobile banking

etc. People use these modes of transactions as per their requirements, convenience at a given point of time. But there is a need to understand and analyze the influence of the demographic factors on the selection of a particular mode of banking transaction at a given point of time. This study attempts to investigate whether the demographic variables do have an impact on the different modes of banking transactions or not.

LITERATURE REVIEW

As defined by Zeithmal and Bitner (2000) “services are deeds, processes and performances”. The characteristics that distinguish them from physical goods as identified by Parasuram et al. (1985) are their “intangibility, heterogeneity, inseparability and perishability”. All these features of services pose different challenges to a manager in a service firm, which is true in the case of banking industry also as banks are essentially delivering services with the above features.

Traditionally, banking services were carried out by the frontline employees of a bank branch and hence this, as classified by Lovelock (1996), is a relatively ‘high contact’ service in which employees are an integral part of the service along with the facilities and equipments in a branch of the bank. In traditional banking, as the people who are delivering the services, there is every chance that their performance may vary from day to day or even hour to hour leading to heterogeneity in the services provided. Due to this heterogeneity characteristic of services, ensuring quality in services becomes difficult to assess as a number of uncontrollable factors are involved such as

attitudes and perceptions of customers as well as the employees are involved (Zeithmal and Bitner, 2000; Lovelock, 1996).

Another important facet as far as services are concerned is that depending on the kind of services, customer partnership is required to varying extent in the creation and delivery of services (Lovelock and Young, 1979; Bettencourt, 1997). Since customers do have some role to play in service production, they can be rightly considered as 'partial employees' of a service firm and they are contributors to their own satisfaction and service quality perception (Zeithmal and Bitner, 2000; Mills and Morris, 1986).

Aref and Mohammed (2001) examined the adoption of tele-banking mode of banking channel in Saudi Arabia. The results also indicate that in general, Saudi consumers' income levels play a vital role in their adoption and usage of tele-banking technology. Filotto et.al (1997) in his study conducted among Italian bank customers and distinguished between the features of ATM users and non users. They found the interest among the younger is more than the older ones. Here the demographic variable 'age' played a vital role in making the choice for banking channel.

Laforet and Li (2005) examined the demographic characteristics of online and mobile banking users in China. Their findings showed that age and education levels did not influence online/mobile banking adoption rather gender had an influence on the usage of online and mobile banking as more males were using online and mobile banking.

Wan et al (2005) in their study among Hong Kong bank customers, they found that ATM

was the most preferred choice of banking channel, followed by online banking and branch banking while telephone banking was least preferred.

From the literature review done, it is quite clear that customer choice and preferences regarding the selection of banking channel is varied across different countries but this study aims to study the impact of demographic variables on the different modes of banking transactions in Odisha on which very few studies may have been done previously which is considered as 'research gap' in this study

OBJECTIVES

The study aims to fulfill the following objectives:-

- 1.To study the influence of demographic variables on the choice of mode of banking transactions.
- 2.To find out which mode of banking transaction is most preferred by the respondents.

RESEARCH METHODOLOGY

Data Collection

After the review of literature, the questionnaire was prepared to capture the responses from customers having their accounts in private banks. Their opinions were taken on the basis of percentage of banking transactions they do through branch, ATMs, internet banking, credit cards and mobile banking (demographic wise). The analysis has been done using t-test and one way ANOVA. In this study there were four demographic variables which were used. They are gender, age, occupation and income. The impact of these variables on the choice of the mode of banking transaction was studied.

Sampling Procedure

For this study purposive sampling has been used. Four hundred questionnaires were distributed across Bhubaneswar, Cuttack and Rourkela only to the customers of private banks out of which 291 were completed and returned recording a response rate of 72.8%.

DATA ANALYSIS AND FINDINGS

The demographic features of the 291 respondents who answered the measurement device are given in Table no 5.1 below:-

Table 5.1. Demographic profile of Respondents

Demographic Variables	Groups	Frequency	Percentage
Gender	Male	185	63.57
	Female	106	36.43
Age in yrs	18-28	71	24.40
	29-39	137	47.08
	40-50	40	13.75
	51-61	20	6.87
	62-72	23	7.90
Occupation	Self employed	83	28.52
	Business	82	28.18
	Professional	87	29.90
	Housewife	16	5.50
	Retired	23	7.90
Income in INR	1,00,000-2,00,000	47	16.15
	2,00,001-5,00,000	130	44.67
	5,00,001-10,00,000	78	26.81
	10,00,001-15,00,000	36	12.37

The primary data collected from questionnaire was analyzed using t-test and one way ANOVA. The results and their interpretations have been discussed below:-

Table 5.2: t-test on modes of percentage of banking transactions conducted by male and female respondents.

	Gender	N	Mean	Std. Deviation	t-value	Significant value
Branch	Male	185	14.11	9.01	4.113*	0.03
	Female	106	10.00	6.55		
ATMs	Male	185	41.03	20.50	5.695*	0.007
	Female	106	55.90	22.98		
Internet Banking	Male	185	12.92	13.78	3.484*	0.014
	Female	106	8.16	3.67		
Credit Cards	Male	185	14.19	17.86	1.310 NS	0.57
	Female	106	11.51	14.76		
Mobile Banking	Male	185	17.76	6.36	3.723*	0.023
	Female	106	14.43	8.77		

N.B:- * - Significant at 5% level ($P < 0.05$), NS – Not Significant at 5% level ($P > 0.05$), DF = 289

In table 5.2 shows the result of t-test with regard to banking transactions through various modes as evidenced by male and female respondents. It is observed that with respect to bank transactions through Branch, there is significant difference between male and female respondents as shown by t-value of 4.113 significant at 5% level. Similarly ATM transactions, Internet Banking transactions and mobile banking transactions are also found to have significant difference with regard to male and female respondents with t-value of 5.695, 3.484 and 3.723 respectively whereas with respect to Credit card transactions there is no significant difference between the male and female respondents with t-value of 1.310.

Table 5.3: ANOVA on banking transactions conducted by users of different age groups.

		Sum of Squares	df	Mean Square	F	Significant value
Branch	Between Age Groups	1597.107	4	399.277	6.020*	0.016
	Within Age Groups	18968.013	286	66.322		
	Total	20565.120	290			

ATMs	Between Age Groups	32591.800	4	8147.950	20.254*	0.008
	Within Age Groups	115052.015	286	402.280		
	Total	147643.814	290			
Internet Banking	Between Age Groups	2044.163	4	511.041	4.080*	0.023
	Within Age Groups	35821.816	286	125.251		
	Total	37865.979	290			
Credit Cards	Between Age Groups	22480.874	4	5620.218	26.997*	0.011
	Within Age Groups	59539.917	286	208.182		
	Total	82020.790	290			
Mobile Banking	Between Age Groups	949.946	4	237.486	4.438*	0.036
	Within Age Groups	15304.178	286	53.511		
	Total	16254.124	290			

N.B.-* - Significant at 5% level ($P < 0.05$)

The results obtained on application of one-way ANOVA in the table 5.3 on approximate percentage of the banking transactions conducted, have been presented in table 5.3 by treating age-group as independent factor. The F-value shown against Branch (6.020) is significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through branch in respect of customers belonging to different age groups is significant. In a similar manner the F-value shown against ATM (20.254), Internet Banking (4.080), Credit Cards (26.997) and Mobile Banking (4.438) are all found to be significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through ATMs, Internet Banking, Credit Cards and Mobile Banking in respect of customers belonging to different age groups is also significant.

Table 5.4: ANOVA on modes of banking transactions conducted by users of different occupation groups.

		Sum of Squares	df	Mean Square	F	Significant value
Branch	Between Occupation Groups	2271.082	4	567.771	8.876*	0.021
	Within Occupation Groups	18294.038	286	63.965		
	Total	20565.120	290			
ATMs	Between Occupation Groups	3915.086	4	978.771	1.948 NS	0.19
	Within Occupation Groups	143728.729	286	502.548		
	Total	147643.814	290			
Internet Banking	Between Occupation Groups	2450.777	4	612.694	4.948*	0.008
	Within Occupation Groups	35415.203	286	123.829		
	Total	37865.979	290			
Credit Cards	Between Occupation Groups	3300.186	4	825.047	2.997*	0.012
	Between Occupation Groups	78720.604	286	275.247		
	Within Occupation Groups	82020.790	290			
Mobile Banking	Total	944.061	4	236.015	4.409*	0.007
	Within Groups	15310.062	286	53.532		
	Total	16254.124	290			

N.B:- * - Significant at 5% level ($P < 0.05$), NS – Not Significant at 5% level ($P > 0.05$)

The results obtained on application of one-way ANOVA on approximate percentage of the banking transactions conducted, have been presented in the table 5.4 by treating occupation-group as independent factor. The F-value shown against Branch (8.876) is significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through branch in respect of customers belonging to different occupation groups is significant. In a similar manner the F-value shown against Internet Banking (4.948), Credit Cards (2.997) and Mobile Banking (4.409) are all found to be significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through Internet Banking, Credit Cards and Mobile Banking in respect of customers belonging to different occupation groups is also significant. But transactions made through ATMs with respect to customers belonging to different occupation groups is not significant as evidenced by F-value of 1.948.

Table 5.5: ANOVA on modes of banking transactions conducted by users of different income groups.

		Sum of Squares	df	Mean Square	F	Significant value
Branch	Between Income Groups	1904.811	3	634.937	9.765*	0.006
	Within Income Groups	18660.310	287	65.019		
	Total	20565.120	290			
ATMs	Between Income Groups	27884.871	3	9294.957	22.275*	0.011
	Within Income Groups	119758.943	287	417.279		
	Total	147643.814	290			
Internet Banking	Between Income Groups	4743.224	3	1581.075	13.700*	0.026
	Within Income Groups	33122.756	287	115.410		
	Total	37865.979	290			

Credit Cards	Between Income Groups	10962.324	3	3654.108	14.759*	0.003
	Within Income Groups	71058.466	287	247.590		
	Total	82020.790	290			
Mobile Banking	Between Income Groups	3825.199	3	1275.066	29.443*	0.016
	Within Income Groups	12428.924	287	43.306		
	Total	16254.124	290			

N.B:- * - Significant at 5% level ($P < 0.05$), NS – Not Significant at 5% level ($P > 0.05$)

The results obtained on application of one-way ANOVA on approximate percentage of the banking transactions conducted, have been presented in the table 5.5 by treating income-group as independent factor. The F-value shown against Branch (9.765) is significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through branch in respect of customers belonging to different income groups is significant. In a similar manner the F-value shown against ATM (22.275), Internet Banking (13.700), Credit Cards (14.759) and Mobile Banking (29.443) are all found to be significant at 5% level ($P < 0.05$). Hence, the percentage of banking transaction conducted through ATMs, Internet Banking, Credit Cards and Mobile Banking in respect of customers belonging to different income groups is also significant.

CONCLUSIONS AND SCOPE FOR FURTHER RESEARCH

In this study it is observed that in case of demographic variable 'gender' it was only in case of usage of credit card for bank transaction where there is no significant difference regarding the opinions of male and female respondents. It is perhaps because the other options available to the buyers like Phone Pe, Pay Tm, BHIM, Google pay etc where the transactions are completed easily just by scanning the QR codes so the usage of credit cards have reduced. Again in the case of the demographic variable 'occupation' it was only in case of ATM card transactions, there is no significant difference regarding the opinions

of the respondents from various occupational backgrounds. This is because almost everybody still prefers to use their ATM card for Point of Sale (POS) transactions as well as going to ATM for withdrawing as well as deposit of cash where as in rest of the results the respondents' opinions were significantly different. This study has its own limitations. This study was conducted in few cities in Odisha exclusively by interviewing the customers of private banks. In future this study could be done on a PAN India basis as well as including the customers of nationalized banks and a comparative study can also be done to observe whether there is any difference in results by analyzing the responses of customers of nationalized banks.

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IMPACT OF WORKING CAPITAL MANAGEMENT ON FIRM'S PROFITABILITY: A STUDY OF NUMALIGARH REFINERY LTD., INDIA

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ABSTRACT

The paper is an attempt to assess the impact of working capital management on liquidity and profitability (ROI) of the company and to establish the linear relationship between liquidity and profitability with the help of multi regression model. For assessing the impact, a 13 year period has been considered. The study is based on secondary data collected from published annual reports of the refinery which are analyzed with the help of correlation and ANOVA test. The study focuses on the factors which are responsible for changing the working capital of the refinery which as a result influences the profitability of the refinery. The study shows the result of different independent variables on profitability of the refinery.

Keywords: liquidity, profitability, ROI, working capital.

INTRODUCTIONS

The oil and gas sector is among the six core industries in India and plays a major role in influencing decision making for all the other important sections of the economy.

India's economic growth is closely related to energy demand, which as a result has made the petroleum industry a conducive scope for investment. According to India Brand Equity Foundation report, published in April 2017, with an oil consumption of 8.3 percent year on year to 212.7 million tons in 2016 i.e. 4.1 million barrel a day, it makes India the third largest oil consuming nation in the world after United States (19.39 million bpd) and China (11.96 million bpd). The Hydro Carbon Report 2025 reviews that the oil and gas sector is one of the crucial sectors for energy development in India as this sector accounts for 45 percent of the energy needs of the country. Besides, the crude oil refining sector is one of the major sectors for self-sufficiency in petroleum products and to move towards a consumer oriented competitive market.

Liquidity is an important factor which refers to the short term financial strength of a company i.e. the ability to pay the current financial obligation of the business. Liquidity is measured with the help of liquidity ratios which have a significant effect on the profitability of the concern. Working capital which is the circulating capital and is convertible into

cash or equivalent within a period of one year and those which are required to meet day to day operation. The effective management and control of various components of short term funds is one of the most important function of the organization. Efficient working capital management involves planning and controlling short term liabilities and assets in a manner that eliminates the risk of inability to meet the short term obligation and at the same time avoid the excessive investment in the assets.

Objective of the study

The present work is to assess the financial performance of the refinery over a period of thirteen (13) years i.e. from 2004-05 to 2016-17. The specific objectives of the study are as follows:

1. To assess the importance of management of liquidity through different parameters.
2. To understand the factors affecting the liquidity position of the refinery.
3. To study the impact of selected measures of working capital on profitability of the refinery.

PROFILE OF NUMALIGARH REFINERY LIMITED (NRL)

Numaligarh Refinery Limited (NRL), which is a Public Sector Undertaking (PSU) in Oil and Gas sector and is a subsidiary of M/s Bharat Petroleum Corporation Limited. The refinery was formed in accordance with the historic "Assam Accord", signed on 15 August 1985. The company was incorporated in April 22, 1993 and is promoted by Bharat Petroleum Corporation Ltd (BPCL) and Government of Assam. The shareholding pattern as on 31-03-2016 is: BPCL 61.65%, OIL 26.00%, Government of Assam 12.35%. M/s NRL is located near Numaligarh

Town, Bokakhat Subdivision of Golaghat district in the state of Assam². Numaligarh Refinery Limited (NRL) was incorporated on 22nd April 1993 and designed to process 3 MMTPA low sulphur indigenous crude oil produced from Upper Assam oil fields by adopting state-of-art technologies. In line with Hydro Carbon Vision 2030, the company is planning to extend its expansion capacity from 3MMTPA to 9 MMTPA, which will expand the hydrocarbon industry in the region. Its requirement for crude is being fulfilled from the oil fields of Oil and Natural Gas Corporation Limited and Oil India Limited. The refinery and the marketing terminal are fully automated and are supported by business driven by Enterprise Resource Planning. The refinery became fully operational from June 2000 with commercial production beginning from October 2000².

REVIEW OF EXISTING LITERATURE

Kesseven Padachi (2006)³, studied about the relation between working capital management and corporate profitability. The regression result shows that the high investment in inventory is related with lower profitability. The study of different variables i.e. liquidity, profitability and operational efficiency shows significant changes in the study period and how it has affect the overall performance of the companies have been detailed in the study.

Ramachandran and Janakiraman (2009)⁴ analyses the relationship between efficiency of working capital management and firm's Earnings Before Interest and Tax of the paper industry in India. The study revealed that cash conversion cycle and inventory days have a negative relationship with earnings before interest and

tax, while accounts payable days and accounts receivable days related positively with earnings before interest and tax

Saleem Qasim and Rehman Ur Ramiz (2011)⁵ in their paper documented about the impact of various ratios on profitability of the company with the help of linear regression analysis. They are of the opinion that liquid assets improves profitability in oil and gas industry upto a certain extent but beyond the point holding of liquid assets diminishes profitability.

Mills, Vamamura, (2014)⁶ studied about the cash flow ratios which determines the amount of cash generated over a period of time and compare that to short-term obligations. This gives a clearer picture if the firm has a liquidity problem in connection with its short-term debt paying ability.

Prof. Velnampy T. et.al (2014)⁷ in his paper studied about the performance measurement of manufacturing companies by cash basis

accounting and well as traditional accrual basis accounting. The study highlights about the usefulness of cash flow ratios in conducting the investigation of financial statements of the selected companies.

Ghosh Sourav⁸ in his paper describes about the different methods to determine how liquid the firm is through different ratio analysis. The current ratio and quick ratio becomes important for understanding the need of customers' demand in the retail market which helps in estimating the finished stock to be maintained. Lauri Phillips⁹, Cash conversion cycle shows the relation between liquidity and profitability. It is more important to measured profitability compared to if the company is using current ratio. The higher the ratio the higher the comfort level. All of the cash flow ratios are not uniform but vary by industry characteristics. The analysis of cash conversion cycle helps in analyzing liquidity of the company.

Table 1: Different ratios of Numaligarh Refinery Limited

YEARS	ROI	CR	QR	CATAR	CASR	WCTR	ITR	DTR	CTR
2004-05	29.19	1.32	1.24	0.33	0.27	11.08	4.6	22.29	3.53
2005-06	26.54	1.42	1.28	0.15	0.07	16.26	3.83	19.67	7.63
2006-07	27.81	1.6	1.49	0.17	0.6	17.73	7.07	34.29	3.42
2007-08	16.58	1.32	1.07	0.16	0.05	19.39	7.84	16.67	3.62
2008-09	10.78	1.59	1.53	0.19	0.05	19.61	10.53	58.55	20.54
2009-10	9.46	1.47	1.36	0.66	0.26	13.56	6.58	61.53	34.78
2010-11	10.72	1.4	1.31	0.89	0.32	11.9	5.44	10.92	51.27
2011-12	6.78	1.45	1.38	0.57	0.22	7.84	8.75	16.85	62.45
2012-13	5.22	1.79	1.71	0.51	0.27	8.49	5	11.59	58.27
2013-14	12.61	1.65	1.88	0.54	0.3	7.71	7.62	33.29	19.2
2014-15	21.4	1.96	1.54	0.63	0.46	6.33	6.81	80.03	9.72
2015-16	30.88	2.71	2.5	0.6	0.38	4.82	6.2	12.42	7.19
2016-17	43.86	3.16	2.92	0.6	0.3	5.16	5.58	17.37	8.68

sum	251.83	22.84	21.21	6	3.55	149.88	85.8	395.47	290.3
average	19.37	1.76	1.63	0.46	0.27	11.53	6.6	30.42	22.33
com-pounded annual growth rate	3.18%	6.95%	6.81%	4.71%	0.81%	-5.71%	1.50%	-1.90%	7.17%
standard deviation	11.6	0.56	0.53	0.24	0.16	5.34	1.81	22.41	21.91
coefficient of variation(%)	59.876 97	31.95 544	32.40 154	51.3 477 6	57.96 615	46.33 35	27.48 138	73.67 28	98.0 985 7

Source-Annual Report

Table 2: Correlation Matrix for the study period 2004-05 to 2016-17

	ROI	CR	QR	CATAR	CASR	WCTR	ITR	DTR	CTR
ROI	1								
CR	0.65	1							
QR	0.57	0.96	1						
CATAR	-0.17	0.31	0.32	1					
CASR	0.29	0.31	0.29	0.36	1				
WCTR	-0.22	-0.63	-0.65	-0.71	-0.42	1			
ITR	-0.41	-0.13	-0.1	-0.17	-0.17	0.28	1		
DTR	-0.15	-0.11	-0.18	-0.01	0.16	0.14	0.41	1	
CTR	-0.75	-0.25	-0.18	0.53	-0.1	-0.21	0.1	-0.19	1

Statistically Analyzed Data

The correlation result in the Table 2 shows that there is a variation in the correlation matrix ranging from weak positive (negative) to strong positive (negative) relationship. The relationship value from 0 to 0.3(0 to -0.3) shows a weak positive (negative) relationship between the variables, while relationship from 0.3 to 0.7(-0.3 to -0.7) shows a moderate positive (negative) relationship and from 0.7 to 1.0 (-0.7 to -1.0) indicates a higher positive (negative) relationship.

Table 2 shows the correlation coefficient between ROI and CR is 0.65 which indicates that there is a positive correlation between the profitability and the current ratio. This moderate positive relationship shows that the importance of current ratio on the profitability of the company. The relationship of quick ratio to ROI is significantly positive .But the lower liquidity ratio indicates

a lower margin of safety to meet the company's short term liabilities. The relationship between Current Assets to Total Assets (CATAR) and ROI indicates the when the CATAR increases, the profitability of the company decreases. The Current Assets to Sales Ratio (CASR) and ROI shows that lower the CASR the higher is the scope of profitability of the firm by efficiently employing the working capital of the firm. The relationship between WCTR and ROI is -0.22 which shows that the lower is the investment in working capital, higher is the profitability of the company. The study of correlation coefficient between ROI and CTR shows a negative association of -0.75 means that the result doesn't conform to the principle of improvement of profitability with a rise in the CTR

It can be analyzed from the correlation matrix table that a very high degree of correlation exist QR and CR i.e. (0.96) between WCTR and CATAR (-.71). This high degree of correlation shows that there is an existence of multi collinearity. Existence of multi collinearity indicates a problem .i.e. the regression coefficient becomes less reliable and confidence in the accuracy of equation is questioned to a certain extent .As explained by Kieu10 (2004), correlation higher than or equal 0.70 implies existence of multi collinearity. In our case the relationship between QR and CR implies existence of multi collinearity, therefore either QR or CR should be used in the analysis. So here CR forms a part of the equation of ROI on CR, CATAR, CASR, WCTR, ITR, DTR and CTR.

The multiple regression equation for our study purpose is as follow

$$ROI = b_0 + b_1 CR + b_2 CATAR + b_3 CASR + b_4 WCTR + b_5 ITR + b_6 DTR + b_7 CTR$$

here b_0 is the constant, $b_1, b_2, b_3, b_4, b_5, b_6$ and b_7 are coefficients.)

Table 3 Regression estimates on factors affecting profitability

Regression Statistics					
Multiple R			0.942937		
R Square			0.88913		
Adjusted R Square			0.733913		
Standard Error			5.983232		
Observations			13		
ANOVA					
	df	SS	MS	F	Significance F
Regression	7	1435.472	205.0674	5.728289	0.036226
Residual	5	178.9953	35.79906		
Total	12	1614.467			

Statistically Analyzed data

Table 3 shows the relationship between dependent variable (ROI) on independent variable (on CR,CATAR,CASR,WCTR,ITR,DTR and CTR) under study. It reveals that profitability measured by the dependent variable and the independent variables are significantly correlated with the correlation coefficient $R=0.942$. It shows that the ROI of the refinery is highly influenced by the independent variables. The table also shows that the model of profitability as measured by profit margin with the coefficient of determination $R^2 = .889$, which indicates that 88.9% of the variation in profitability can be accounted by the joint variation in all the independent variables. This also shows that approximately 88.9% of the variance in the dependent variable is accounted by the regression statistics.

In addition the study indicates that summary of Analysis of Variance and F-Statistics, i.e. $F=5.728$ are significant at 0.036 level. The value of $F=5.728$ is large enough to summarize that the set of independent variables as a whole has been a factor for the change in profitability measured by profit margin. The significance value of F statistic (5.728) is less than the Significance F i.e. 0.036, which means that the variation explained is not due to change and it is fit for analysis. It thus proves the potency of relationship between dependent variables with all the independent variables.

The study mainly focuses on the factors which are responsible for changing the working capital of the refinery as a result which influences the profitability of the refinery. So it becomes necessary on part of the refinery not to infuse much on the working capital which affect the availability of cash or might influences the profit aspect of the refinery. An equilibrium is to be maintained between working capital and investment in current assets so that the profitability of the refinery is not to be hampered. In the present case the contribution made by the respective factors for improving the profitability of the refinery is 88.91%.

Table 4: Correlation Matrix for the study period 2004-05 to 2016-17

	Coefficients	Standard Error(r)	t Stat	P-value
Intercept	18.87164	17.05696	1.10639	0.318927
CR	9.615896	4.844234	1.985019	0.103909
CATAR	-1.76881	13.57176	-0.13033	0.901387
CASR	7.730695	12.9283	0.597967	0.575914
WCTR	0.121365	0.610703	0.19873	0.850302
ITR	-1.46075	1.19118	-1.22631	0.27468
DTR	-0.07746	0.097386	-0.79535	0.462479
CTR	-0.31755	0.128668	-2.468	0.056669

The multiple regression equation of $ROI = 18.871 + 9.615CR - 1.768CATAR + 7.730CASR + 0.121WCTR - 1.460ITR - 0.077DTR - 0.317CTR$.

It is observed from the table that when the CR is increased by one unit, the ROI increases by 9.615 units and this impact of CR on profitability is found to be significant, and for every one unit increase in CATAR the ROI is reduced by 1.768 units. The two results show positive impact of Current Ratio on profitability of the company and the adverse impact of Working Capital Turnover Ratio on company's profitability. For every one unit increase in CASR and WCTR, the ROI is increased by 7.730 and at a nominal rate of 0.121 unit. For one unit increase in ITR, DTR and CTR (keeping other variables constant) the company's profitability is decreased by 1.460, 0.077 and 0.317 units respectively.

The study of correlation analysis reveals that the CR, QR and CASR has a positive relation in association with the profitability, while the CATAR, WCTR, ITR, DTR and CTR has a negative association with the profitability ratio. The relationship of all the ratios with respect to profitability is not significant. The study of multiple regression analysis shows that the independent variables show both positive and negative impact on profitability of the company. The regression coefficient of CR, CASR and WCTR shows a positive influence on profitability and CATAR, ITR, DTR and CTR shows a negative impact on profitability of the company. Out of the regression coefficient CR, CATAR, CASR and ITR has a significant influence on the working capital management of the company in comparison to the other three variables.

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IMPORTANCE OF RETAIL DISPLAY IN IMPULSE BUYING DECISION

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ABSTRACT

The current research aims to explore the importance of retail display on consumer impulse buying behavior. Exactly, this paper researched the influence of window display, promotional signage, store layout, background music and store smell on consumer impulse purchase behavior. The research was conducted among 117 customers of Delhi Retail Stores using questionnaire which was formulated based on the previous literature. The collected data was analyzed using factor analysis and linear regression tests. The research findings suggested that store attributes including window display, promotional signage and smell play important role in influencing the impulse buying behavior of customers. Final chapter of the current research provides some recommendations for store managers on further improvement of store atmosphere to encourage impulse buying among customers.

Keywords: Impulse buying, retail display, store attributes, buying behavior, factor analysis, regression.

INTRODUCTION

The retailing business in India has developed quickly lately. These days, most of the Indian

purchasers are picking retail outlets, exactly, general stores so as to do their shopping. An enormous number of customers have begun changing from open bazaars to general stores, since these kinds of retail outlet offer accommodation, comfort and moderate costs for consistent shopping. Because of changing purchaser purchasing conduct, retailers are consistently looking for new retail methodologies and utilizing distinctive advertising instruments so as to guarantee that buyers will return to the store over and over. In such manner, it is imperative to underscore the job of store attributes which legitimately impacts shoppers purchasing conduct. As indicated by Tinnie (2010) store attributes incorporate store design, nearness of salesmen, store atmospherics and store type. Exactly, store condition, structure of the store, introduction and area of product are viewed as significant piece of store qualities. Another purpose behind retailers to structure their stores and to utilize diverse advertising instruments is to offer boost to buyers to buy the merchandise impulsively. As per Bellenger (1978) the buyers shopping conduct is isolated into two sorts including planned and impulse buy dependent on where purchasing choice is made. Planned buy choice is made before visiting the store, though

impulse buy choices are made inside the store because of the in store stimuli (referred to in Raposo, 2013). Purchasers' stimuli to purchase things incautiously are activated through store format, signage (class, special, retail location), include territories (window show, limited time territory, and passageway), visual promoting and store air (lighting, shading, music, fragrance). Hence, it is significant for retailers to comprehend the effect of in-store qualities on shopper impulse purchasing conduct since impulse buys comprise huge level of grocery store deals. As per Bell (2010) grocery stores are seen as the spots which speak to huge level of impulse buys and 60%-70% of buys in markets are made because of presentation to in-store boosts. The point of this paper is to research the impact of in-store qualities on customers' impulse purchasing conduct utilizing the instance of Delhi markets. Another significant motivation to contemplate the impact of in-store boosts on shoppers' impulse purchasing utilizing the instance of Delhi markets is to give recommendations on the most proficient method to additionally improve store qualities dependent on research results.

Research Question: How do retail display influence consumers impulse buying?

Objectives of the study:

1. To distinguish the impact of window display on shopper impulse purchasing conduct.
2. To assess the effect of promotional signage on shopper impulse purchasing conduct.
3. To measure the impact of store design on shopper impulse purchasing conduct.
4. To distinguish the effect of background music on shopper impulse purchasing conduct.

Hypothesis:

H1: Window Display influence the customer impulse purchasing decision.

H2: Promotional Signage influence the customer impulse purchasing decision.

H3: Store layout influence the customer impulse purchasing decision.

H4: Background music influence the customer impulse purchasing decision.

H5: Store smell influence the customer impulse purchasing decision.

LITERATURE REVIEW

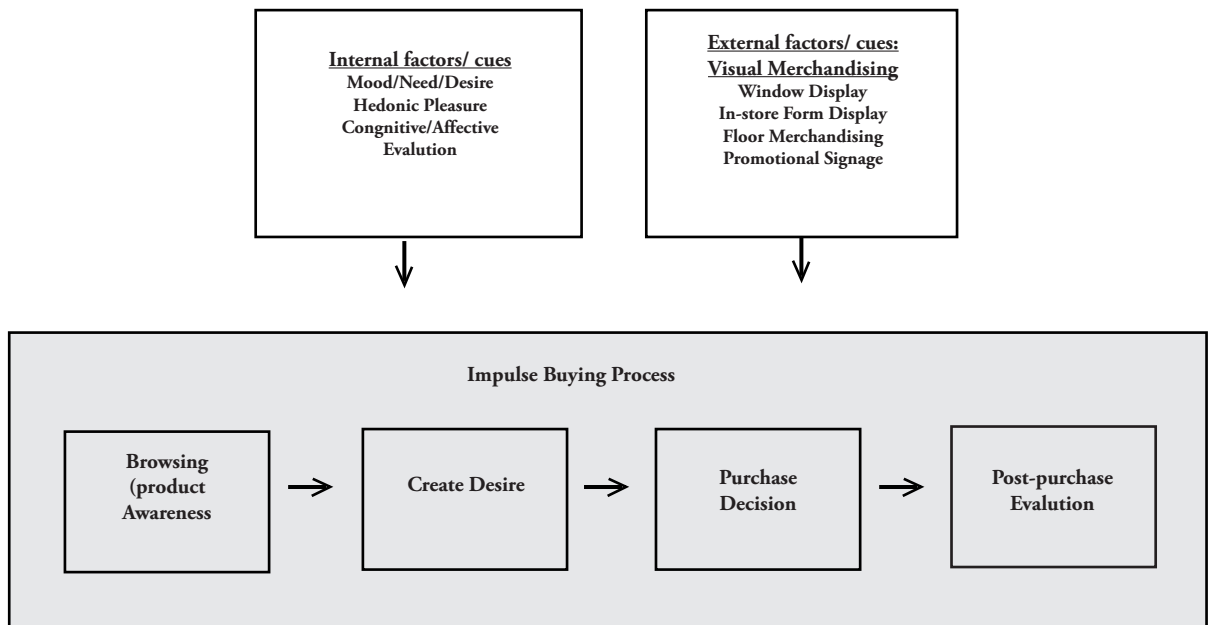
Mohan (2013) portrayed impulse purchasing as on the spot choice to purchase a specific thing with small reasoning while spontaneous purchasing may happen since clients frequently neglect to remember specific thing for their shopping rundown and get it recollecting that they are out of stock. Moreover, impulse buys were characterized as a customers' reaction towards low cost items (Hausman, 2000).

The model of consumer purchasing is fundamental instrument for us to comprehend the procedure of planned buy. In any case, Kim (2003) changed these five back to back procedures to clarify the procedure of impulse purchasing by dropping the phases of need acknowledgment, data search and elective assessment. Rather than that, Kim (2003) renamed the phases to perusing (item mindfulness), make want, buy choice, and post buy assessment. As per the impulse buy model presented by Kim (2003), impulse purchasing conduct of customers starts with item mindfulness where shoppers begin perusing the without intending to purchase explicit item. During this equivalent procedure,

they are presented to all around structured store air. Thus, the inclination to purchase incautiously emerges because of instore retail display (Kim, 2003). There are a few inside and outside variables which are probably going to invigorate the event of buyer impulse

purchasing. Kim (2003) detailed that inside variables incorporate mind-set, want indulgent joy apparent by purchasers while outside variables are depicted by visual marketing, window show and promotional signage.

Figure 1: Model of Impulse Buying



(Source : Kim (2003))

2.1 Factors affecting impulse buying decisions

In order to get a better understanding approximately impulse shopping, we need to recognize extra deeply internal and outside factors that motivates an impulse buyer. Let's discuss them one after the other:

Internal Factors

Internal elements of impulse shopping focus without delay on the man or woman, analyze the inner cues and traits of the person that make them engage in impulse buying conduct. Such factors involve a consumer's personality traits which decide the diploma in their impulse

shopping for tendency (IBT), inner cues inclusive of emotional states, the consumer's normative evaluation of impulse shopping for engagement and demographic elements (Kacen and Lee,2002).

Impulsive buy behavior is associated with certain purchaser mood. Beaty and Ferrell (1998), Rook (1987), Gardner and Rook (1993). They also said, that client's superb feelings are associated to shop for a product on impulse. Therefore, impulsive customers are more emotional than non-impulsive clients. Mood for some purchasers can be the most

crucial psychological situation which allows in stimulating impulsive purchasing. Dittmar (1996) Gardner and Rook (1993) defined the relation of impulsive buying with bad and advantageous emotions. In assessment with poor emotions, a client full of nice feelings might show greater impulsivity because of the sense of being herbal; choice to present something as an award to oneself and higher strength float.

Autistic stimuli- Another critical inner motivator is autistic stimuli. Autistic wondering does not comply with logic and aren't rational. They commonly connected with feelings and sensuality. An autistic stimulus has strong suggestive powers and might cause impulse buying.

External Factors

External elements discuss with advertising cues or stimuli which might be managed through the marketer to draw customers into impulse buy conduct (Youn and Faber, 2000). Recent research have said that atmospheric cues (i.e., sights, sounds and scents) within the retail surroundings are essential elements that can affect a preference to purchase unexpectedly (Eroglu and Machleit 1993; Mitchell 1994)

Visual stimulus- Visual stimulus by chance seen through the purchaser can normally be the product itself or the promotional signage of the product. Rook's researches say that it's miles very difficult for customers to withhold their urge within the moments following their stumble upon with the product.

Social Factors- It holds store employees and clients and is considered an important external aspect that influences impulse shopping for. Research from past indicates that behavior

of employees and helping nature of salesman greater the impulse buying in client. (Bittner, 1990; Baker et al., 1994)

Self-Service surroundings- Stern (1992) says self-provider environment complements the shopping enjoy and as result, the patron is greater inclined to try new things and patterns.

In store Browsing- Jones et al. (2003) considered in shops surfing as growing encounters with purchasable products which can trigger a few stimuli to buy it. This stimulus is hard to avoid because of bodily closeness with the product.

Visual Merchandising- Visual merchandising has a vital impact on impulse shopping for. Rostocks (2003) shows that one of the primary motives of impulse buying is how the product appear on shelf. An effective visible vending enables growing the sales of merchandise.

This paper focusses on external factors such as window display, promotional signage, store layout and background music in order to explain the process of impulse buying.

RESEARCH METHODOLOGY

This survey was conducted on 128 consumers of Delhi retail stores. Convenience sampling method of non probability sampling was applied in this survey. Out of 128 questionnaires filled by respondents only 117 were appropriately completed and used for data analysis.

RESULTS

Demographic characteristics of 117 respondents represent 56% of males, 44% of females. 25% of respondents aged 18-25; 34% of them are aged between 26-33; 30% of them are aged between 34-41; 11% of them are aged 42-49 years old.

Items	Impulse Buying
Some of the time I want to purchase things on the spike of the moment.	.822
"I see it, I get it" portrays me.	.804
"Get it done" portrays the manner in which I purchase things	.791
I regularly purchase things without thinking.	.776
I cautiously plan the vast majority of my purchases.	.771
I purchase things as per how I feel at the moment.	.752
"Purchase currently, consider it later" portrays me.	.742
Some of the time I am somewhat foolish about what I buy.	.652
I regularly purchase things spontaneously.	.593
Eigenvalue	5.03
Variance	56%
Cronbach α	0.89

A principal component investigation (PCI) was led on the 9 things with varimax pivot. KMO demonstrated positive outcome for sampling adequacy, KMO=.860. 9 things identified with impulse purchasing loaded in one part, with factor loadings higher than .050 and eigen values higher than 1 with 56% variance clarified.

Items	Scent	Promotional Signage	Music and Layout	Window Display
If scent of retail store is pleasant I intend to go back to the store in future	.832			
If I like the music inside retail store my chances of unplanned buying become greater	.791			
The scent coming from the store entices me to go inside	.737			
If retail store smells good, I tend to stay longer and look at the merchandise	.584		.527	

Layout of store is well-structured so that consumers have no difficulty finding their way	.558			
I am more likely to make unplanned buying if the store smells good				
I am more likely to make unplanned buying if the product has a sale sign		.791		
Walking space in Retail store is not crowded		.747		
If I see an interesting offer on in-store signs of Retail store, I am more likely to buy it		.621		
Sales signs used by store entices me to look through the merchandise		.567		
The music playing in the store influences my impulse buying behavior			.768	
I spend more time in the retail store browsing it, if I like the ambience and the background sounds			.636	
When I enter a store, I tend to follow the store layout while browsing the store			.632	
Retail store makes me feel like exploring it Retail store makes me feel like exploring it			.592	
I am more likely to enter retail store, if it has an eye-catching window display				.853

When I see a special promotional signage in store, I go to look at the product			.504	.635
I feel compelled to visit retail store, if it has an interesting window display				.624
I pay attention to store's window display				.610
Eigenvalues	7.09	1.9	1.3	1.02
Variance	18	17	15	15
Cronbach α	0.77	0.78	0.78	0.79

Things included in the questionnaire also loaded in 4 components. Just factor loadings higher than 0.50 was extricated. Things identified with Scent stacked in the main segment marked as "Fragrance", segment 2 spoke to things as "promotional signage" while part 4 spoke to window display.

Be that as it may, things identified with music and format was spoken to under same factor, accordingly it was chosen to name this factor as music since things on music has higher factor loadings. In view of the yield of factor examination, factor scores were additionally utilized in regression analysis.

REGRESSION ANALYSIS

1. The impact of Window Display on customer impulse purchasing

The aftereffects of linear regression analysis likewise appeared there was a huge connection between impulse purchasing and window display. Since p value from regression analysis was not exactly alpha level 0.01, it very well may be expressed that research hypothesis was accepted.

2. The impact of promotional signage on customer impulse purchasing

The results of linear regression analysis found that promotional signage utilized in store essentially impacts shopper impulse purchasing conduct p

estimation of regression investigation was less contrasted with alpha level 0.05. Consequently, this hypothesis was accepted.

3. The impact of store layout on customer impulse purchasing

The examination of regression for the given example demonstrated that there was no critical connection between store layout and customer impulse purchasing conduct. Hence, the null hypothesis was accepted.

4. The impact of music on customer impulse purchasing

He aftereffects of regression examination uncovered that there was no any noteworthy connection between impulse purchasing and ambient sounds, with p esteem (0.31) more

prominent than alpha level $p > 0.05$. Hence, the gathered information in this exploration didn't show any connection between impulse purchasing and music. In this manner, the null hypothesis was accepted.

5. The impact of store smell on customer impulse purchasing

Regression investigation likewise uncovered noteworthy positive connection between impulse purchasing and store smell. The estimation of regression investigation was not exactly alpha level $p < 0.005$. Hence the hypothesis was accepted.

CONCLUSION

The consequences of research recognized critical connections between retail display and impulse purchasing of customers. The discoveries of the examination can be utilized by senior supervisors, particularly head supervisors of retail stores, so as to additionally improve store condition and make convenient shopping experience for clients.

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MEASURING PRODUCTIVITY IN IT SECTOR COMPANIES INCLUDED IN NIFTY 50: AN EMPIRICAL STUDY

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ABSTRACT

Productivity is a ratio of monetary value of output to the monetary value of input. Higher the productivity ratio of a company denotes more efficiently the company has used its resources. In the present research, an attempt has been made to measure, analyse and compare productivity of four companies of IT sector during the period from 2010-11 to 2017-18 i.e. for eight years.

Intra-company comparison has been drawn with the help of chi-square test and results indicate that null hypothesis is accepted in all the cases of IT companies. Inter-company comparison has been drawn with the help of Kruskal Wallis One Way ANOVA Test and results indicate that null hypothesis is rejected.

After analysing the average overall productivity it is observed that overall productivity is almost one that means IT sector companies are not optimally utilizing its resources, it is just meeting its cost. It is recommended that the companies should take steps to maintain the productivity ratio high in future by optimally utilizing the resources.

Keywords: Overall Productivity, Investor Input, Average Investment, Kruskal Wallis One Way ANOVA Test.

INTRODUCTION

The idea of productivity has been continuously emerging since early fifties till contemporary times. The key to progress and prosperity lies in the essence of higher productivity leading to enhanced standard of living. The higher productivity has been marked by the curbed wastage, better wages and working conditions, low prices for consumers and higher dividends to shareholders, improved exports and foreign exchange etc. All these elements contribute towards social progress and economic growth, which in result; assist in eliminating the core problems of our country viz., mass poverty and mass unemployment. Hence, productivity serves as an important indication of the growth rate and performance of entire economy in this ever-changing scenario.

With the prevalence of technology over the time, things have become more feasible and easy that its adoption helps in saving time at great extent.

Hence, the concept of productivity has become a matter of great significance nowadays.

This modern era is full of many opportunities that may increase the productivity level. The productivity has now become the necessity, not only for the development of the organisation but also for the survival in this competitive world.

National Research Council (1979) stated, "Productivity is the relationship between output produced and one or more of associated inputs used in the production process."

Productivity of a concern indicates that how much has been produced as output by all the input taken together. It measures effective utilisation of overall input on the basis of limited output.

$$\text{Productivity} = \frac{\text{Total Output}}{\text{Total Input}}$$

LITERATURE REVIEW

Many studies on productivity trends in India and abroad have been carried out over the last few decades. Few studies are being summarised below:

Simpson (2009) in his research paper titled "Productivity in Public Services" explored the issues arising in measurement of productivity in public services. There are many limitations arising in measuring productivity of public services because mainly public services are unpriced and some public services are consumed collectively. These limitations are generally not faced in the private sector.

Jain (2011) in his thesis analysed the cost structure, profitability and productivity of five companies for a period of 5 years from 2004-05 to 2008-09 of pharmaceutical industry in India. The study also examined the scope for

improvement in profitability by eradicating reasons responsible for low profit margin and suggested the ways and means by which management can improve the performance of the companies.

Globerson and Vitner (2019) has presented a model which aimed at measuring the productivity of a product or a service that are producing different products. Two methodologies have been adopted for calculating the output taking into consideration the value of item which are in process and assigning the weights to each and every product according to the level of usage of the most frequently used resource.

Research Gap: As per the above reviews and many more studies studied related to the topic, there is no study on overall productivity of IT sector companies included in Nifty 50. So in this present research an attempt has been made to measure the overall productivity of IT sector companies.

OBJECTIVES

1. To measure, analyse and compare the overall productivity for the IT sector companies included in Nifty 50.
2. To compare the intra-company and inter-company overall productivity for the study period.
3. To suggest ways for the improvement in overall productivity.

RESEARCH METHODOLOGY

Collection of Data

This research is based on the secondary data. The data and information regarding output, average investment, overall input and all other financial variables has been obtained from the

annual reports of the respective companies i.e. Infosys Ltd., Tata Consultancy Services Ltd., Tech Mahindra Ltd. and Wipro Ltd. The annual reports are available on the website of these companies and also the data related to index numbers has been collected from various bulletins published by Reserve Bank of India on its website.

Selection of Base Year

The year 2010-11 has been taken as the base year. The revaluation of output and input is done on the basis of this year.

Model to be used

In the present research Productivity Accounting Model propogated by H. S. Davis has been used for measuring overall productivity because it considers all the elements of output and input, ignoring the effect of inflation.

Hypotheses

Intra-Company Hypothesis: Tested with the help of Chi-Square Test.

Null Hypothesis (H₀): There is no significant difference in the overall productivity indices of the sampled company for the study period and can be represented by straight line trend or line of best fit.

The acceptance of null hypothesis would reveal that the overall productivity indices of the sampled company for the study period are approximately equal.

Inter-Company Hypothesis: Tested with the help of Kruskal Wallis One Way ANOVA Test.

Null Hypothesis (H₀): There is no significant difference in the overall productivity ratios for the sampled companies.

CALCULATION OF INDEX NUMBERS AND CONVERSION FACTORS

For revaluation of data as per the base year's prices index numbers and conversion factors has been used. Here base year is 2010-11. Backward Splicing technique has been used for calculating the index numbers of 2010-11. Following formula has been used to calculate conversion factors:

$$\frac{\text{Index number of the base year}}{\text{Index number for the current year}}$$

Table 1: Index Numbers and Conversion Factors for Revaluation of Data

Year	Wholesale Price Index	Conversion Factors	Consumer Price Index for Industrial Workers	Conversion Factors	Fuel and Power Index	Conversion Factors
	Base year 2011-12 = 100		Base Year 2001 = 100		Base Year 2011-12 = 100	
2010-11	91.80	1.000	180.00	1.000	87.75	1.000
2011-12	100.00	0.918	195.00	0.923	100.00	0.878
2012-13	106.90	0.859	215.00	0.837	107.10	0.819

2013-14	112.50	0.816	236.00	0.763	114.70	0.765
2014-15	113.90	0.806	251.00	0.717	107.70	0.815
2015-16	109.70	0.837	265.00	0.679	86.50	1.014
2016-17	111.60	0.823	276.00	0.652	86.30	1.017
2017-18	114.90	0.799	284.00	0.634	93.30	0.941

REVALUATION OF OUTPUT

The output of the companies has been revalued by multiplying the output values with the conversion based on wholesale price index.

REVALUATION OF OVERALL INPUT

All inputs that is material, labour, overhead and investor input are added together and constituted the overall input. When overall input is compared with the output, it is known as the overall productivity. Different inputs have been revalued with the different index numbers according to the nature of the inputs.

Material Input: Revalued with whole sale price index.

Labour Input: Revalued with consumer price index for industrial workers.

Overhead Input: Power and Fuel- Revalued with fuel and power index.

Repairs & Maintenance and Business Service Input: Revalued with wholesale price index.
Depreciation and Amortisation- Not revalued.

Investor Input: Investor input is calculated by multiplying the base year rate of return with the average investment in succeeding years.

Average Investment: Fixed Assets: Taken on historical values as shown in the balance sheet. Non-current investments, long term loans and advances and other non-current assets, current assets, current liabilities, profit- Revalued with wholesale price index. Half of the profit has been deducted from the value of investment to obtain the average investment.

Base Year Rate of Return: The base year rate of return based on industry standard for inter-company comparison has been calculated with the help of the following formula:

$$R_1 = \frac{R_1 + R_2 + R_3 + R_4 \text{ (Rate of Return of Sector Companies)}}{AI_1 + AI_2 + AI_3 + AI_4 \text{ (Average Investment of Sector Companies)}} \times 100 = 38.48\%$$

OVERALL PRODUCTIVITY

Overall productivity of IT sector companies has been shown from table 2 to 5 from 2010-11 to 2017-18 taking 2010-11 as the base year for revaluation.

Table 2: Overall Productivity of Infosys Ltd

Base Year 2010-11

Amount in ₹ crore

S.No.	Items	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1	Output	26532.00	30814.51	33555.12	38284.27	40813.42	47702.30	51314.87	52702.04
2	Material Input	482.00	595.78	649.40	767.86	820.51	901.45	1041.92	1032.31
3	Labour Input	12459.00	14281.58	16683.08	18579.05	18007.46	19151.87	20175.49	20587.25
4	Overhead Input	4770.00	5443.02	5297.06	6414.54	6721.90	8626.95	9490.58	10124.12
5	Total Input (Company Standard)	17711.00	20320.38	22629.55	25761.44	25549.86	28680.28	30707.98	31743.68
6	Normal Investor Input @ 38.48% (Industry Standard)	8197.97	9036.04	10526.50	11843.11	13183.05	15971.19	19578.73	17454.79
7	Total Input (Industry Standard)	25908.97	29356.42	33156.05	37604.55	38732.91	44651.47	50286.71	49198.47
8	Overall Input Output Ratio (Industry Standard)	0.9765	0.9527	0.9881	0.9822	0.9490	0.9360	0.9800	0.9335
9	Overall Productivity Ratio (Industry Standard)	1.0240	1.0497	1.0120	1.0181	1.0537	1.0683	1.0204	1.0712
10	Overall Productivity Indices (Industry Standard) (O)	100.00	102.50	98.83	99.42	102.90	104.32	99.65	104.61

11	Computed Value / Expected Values (E)	99.95	100.40	100.85	101.30	101.75	102.21	102.66	103.11
12	Chi-Square (O-E)2/E	0.0000	0.0441	0.0406	0.0351	0.0129	0.0439	0.0882	0.0217

Average Overall Productivity Indices=101.53, a=101.53, b=0.23, $x^2=0.2864$, S.D.=2.17, C.V.=2.14%.

Overall productivity ratio is the lowest 1.0120 in 2012-13 while it is the highest 1.0712 in 2017-18. The highest ratio indicates efficiency and effectiveness while the lowest ratio indicates that the overall input has not been utilized efficiently. The table value of chi-square at 5% level of significance with $8-1=7$ d.f. is 14.067 while the calculated value of chi-square is 0.2864. As the calculated value of chi-square is less as compared to the table value hence null hypothesis is accepted. This reveals that the overall productivity indices of Infosys Ltd. for the study period are approximately same and can be represented by straight line trend or line of best fit.

Table 3: Overall Productivity of Tata Consultancy Services Ltd

Base Year 2010-11

Amount in ₹ crore

S.No.	Items	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1	Output	29771.01	38137.37	43513.96	55314.66	62904.22	74998.91	80044.98	82424.84
2	Material Input	17.75	10.84	21.51	32.47	52.13	33.34	1447.66	1602.00
3	Labour Input	10190.31	13014.68	14297.40	16378.99	19623.09	20416.30	31371.63	32650.37
4	Overhead Input	10840.77	12941.28	15402.10	18709.40	21642.28	25760.43	14520.79	14467.75
5	Total Input (Company Standard)	21048.83	25966.80	29721.01	35120.85	41317.50	46210.07	47340.08	48720.12
6	Normal Investor Input @ 38.48% (Industry Standard)	6197.68	7214.48	9278.16	11971.19	12266.20	16339.72	22020.57	20619.08
7	Total Input (Industry Standard)	27246.51	33181.28	38999.17	47092.04	53583.70	62549.79	69360.65	69339.20

8	Overall Input Output Ratio (Industry Standard)	0.9152	0.8700	0.8962	0.8513	0.8518	0.8340	0.8665	0.8412
9	Overall Productivity Ratio (Industry Standard)	1.0927	1.1494	1.1158	1.1746	1.1739	1.1990	1.1540	1.1887
10	Overall Productivity Indices (Industry Standard) (O)	100.00	105.19	102.12	107.50	107.44	109.74	105.62	108.79
11	Computed Value / Expected Values (E)	102.20	103.22	104.25	105.28	106.31	107.34	108.37	109.40
12	Chi-Square (O-E)2/E	0.0472	0.0374	0.0439	0.0467	0.0119	0.0533	0.0700	0.0034

Average Overall Productivity Indices=105.80, a=105.80, b=0.51, $x^2=0.3138$, S.D.=3.12, C.V.=2.94%.

Overall productivity ratio is the lowest 1.0927 in 2010-11 while it is the highest 1.1990 in 2015-16. The highest ratio indicates efficiency and effectiveness while the lowest ratio indicates that the overall input has not been utilized efficiently. For testing the hypothesis chi-square method has been used. The table value is 14.067 while the calculated value of chi-square is 0.3138. As the calculated value of chi-square is less as compared to the table value hence null hypothesis is accepted. This reveals that the overall productivity ratios of the company for the eight year period are same and can be represented by straight line trend or line of best fit.

Table 4: Overall Productivity of Tech Mahindra Ltd

Base Year 2010-11

Amount in ₹ crore

S.No.	Items	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1	Output	5092.10	4875.22	5073.86	13354.17	15545.48	18479.45	19799.98	20288.13
2	Material Input	1.50	0.46	0.00	0.00	0.00	0.00	0.00	0.00

3	Labour Input	1943.80	2077.67	2104.05	5319.25	5163.26	5031.46	5049.35	5139.52
4	Overhead Input	2229.50	2130.54	2138.63	5122.90	7483.03	9060.59	10318.31	9985.39
5	Total Input (Company Standard)	4174.80	4208.67	4242.68	10442.15	12646.29	14092.05	15367.66	15124.92
6	Normal Investor Input @ 38.48% (Industry Standard)	1617.14	1585.10	1545.49	3030.11	3813.95	4592.07	5741.39	6347.51
7	Total Input (Industry Standard)	5791.94	5793.77	5788.17	13472.26	16460.24	18684.12	21109.05	21472.43
8	Overall Input Output Ratio (Industry Standard)	1.1374	1.1884	1.1408	1.0088	1.0588	1.0111	1.0661	1.0584
9	Overall Productivity Ratio (Industry Standard)	0.8792	0.8415	0.8766	0.9912	0.9444	0.9890	0.9380	0.9448
10	Overall Productivity Indices (Industry Standard) (O)	100.00	95.71	99.71	112.75	107.42	112.50	106.69	107.47
11	Computed Value / Expected Values (E)	99.44	101.11	102.78	104.45	106.12	107.78	109.45	111.12
12	Chi-Square (O-E)2/E	0.0032	0.2880	0.0917	0.6597	0.0161	0.2061	0.0698	0.1201

Average Overall Productivity Indices=105.28, a=105.28, b=0.83, $x^2=1.4547$, S.D.=5.81, C.V.=5.52 %.

The highest overall productivity ratio is in the year 2013-14 with 0.9912 and the lowest is in the year 2011-12 with 0.8415. Chi-square has been used for testing the hypothesis and its table value at 5% level of significance with $8-1=7$ d.f. is 14.067 while the calculated value of chi-square of Tech Mahindra Ltd. is 1.4547. As the calculated value of chi-square is less as compared to the table value hence null hypothesis is accepted. This reveals that the overall productivity ratios of the company for the eight years period are approximately the same and can be represented by straight line trend or line of best fit.

Table 5: Overall Productivity of Wipro Ltd

Base Year 2010-11

Amount in ₹ crore

S.No.	Items	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1	Output	26949.60	30252.87	29664.36	32941.35	35024.33	39676.31	40209.89	37750.59
2	Material Input	3805.60	4300.74	2320.50	2079.58	2254.38	2221.82	1799.82	1174.21
3	Labour Input	10937.40	12286.51	13311.82	13991.51	14143.76	14516.82	14249.07	13793.43
4	Overhead Input	6428.30	7712.28	7311.19	7873.82	8632.23	10619.01	11158.75	10980.49
5	Total Input (Company Standard)	21171.30	24299.53	22943.51	23944.91	25030.37	27357.64	27207.64	25948.13
6	Normal Investor Input @ 38.48 % (Industry Standard)	8224.47	8815.26	7424.26	8818.90	10236.65	12689.51	14670.24	12666.31
7	Total Input (Industry Standard)	29395.77	33114.79	30367.77	32763.81	35267.02	40047.15	41877.88	38614.44
8	Overall Input Output Ratio (Industry Standard)	1.0908	1.0946	1.0237	0.9946	1.0069	1.0093	1.0415	1.0229
9	Overall Productivity Ratio (Industry Standard)	0.9168	0.9136	0.9768	1.0054	0.9931	0.9907	0.9602	0.9776

10	Overall Productivity Indices (Industry Standard) (O)	100.00	99.65	106.55	109.67	108.33	108.07	104.73	106.64
11	Computed Value / Expected Values (E)	102.33	103.22	104.11	105.01	105.90	106.79	107.69	108.58
12	Chi-Square (O-E)2/E	0.0529	0.1234	0.0571	0.2069	0.0556	0.0152	0.0811	0.0348

Average Overall Productivity Indices=105.45, a=105.45, b=0.45, $x^2=0.6269$, S.D.=3.52, C.V.=3.34%.

Overall productivity ratio is the highest 1.0054 in 2013-14 while it is the lowest 0.9136 in 2011-12. The highest overall productivity ratio is better as from more amount of output is obtained with small amount of input. The table value of chi-square at 5% level of significance with $8-1=7$ d.f. is 14.067 while the calculated value of chi-square of Wipro Ltd. is 0.6269. As the calculated value of chi-square is less as compared to the table value hence null hypothesis is accepted. This reveals that the overall productivity indices for the Wipro Ltd. for the study period are approximately same and can be represented by straight line trend or line of best fit.

KRUSKAL WALLIS ONE WAY ANOVA TEST

The overall productivity of all the samples is combined and arranged in order of increasing size and given a rank number. The rank sum of each of the sample has been calculated. The detailed calculation has been done in the following table 6.

Table 6: Comparative Overall Productivity Ratios from 2010-11 to 2017-18 of IT Sector Companies and Kruskal Wallis One Way ANOVA Test

Base Year 2010-11

Year	Infosys Ltd.		Tata Consultancy Services Ltd.		Tech Mahindra Ltd.		Wipro Ltd.	
	Ratio	Rank 1	Ratio	Rank 2	Ratio	Rank 3	Ratio	Rank 4
2010-11	1.0240	20	1.0927	25	0.8792	3	0.9168	5
2011-12	1.0497	21	1.1494	27	0.8415	1	0.9136	4
2012-13	1.0120	17	1.1158	26	0.8766	2	0.9768	10
2013-14	1.0181	18	1.1746	30	0.9912	14	1.0054	16
2014-15	1.0537	22	1.1739	29	0.9444	7	0.9931	15

2015-16	1.0683	23	1.1990	32	0.9890	12	0.9907	13
2016-17	1.0204	19	1.1540	28	0.9380	6	0.9602	9
2017-18	1.0712	24	1.1887	31	0.9448	8	0.9776	11
Total		164		228		53		83

$H=26.8210$

The calculated value of H is 26.8210 and the table value is 7.8147 at 5% level of significance with $4-1=3$ degrees of freedom. As the calculated value is more than the table value hence null hypothesis is rejected. This means that the overall productivity ratios of the IT sector companies of Nifty 50 are not same that is there is a significant difference in overall productivity.

COMPARATIVE AVERAGE ANALYSIS

To analyse between the companies of a particular sector it is better to analyse its average performance of the study period. In the present study an attempt has been made to analyse and interpret the results on the basis of average performance.

Table 7: Comparative Average Overall Productivity of IT Sector Companies from 2010-11 to 2017-18

Base Year 2010-11

Companies	Overall Input Output Ratio		Overall Productivity Ratio		Chi Square Test	
	Average	Rank	Average	Rank	Value	Rank
Infosys Ltd.	0.9623	2	1.0397	2	0.286	1
Tata Consultancy Services Ltd.	0.8658	1	1.1560	1	0.314	2
Tech Mahindra Ltd.	1.0837	4	0.9256	4	1.455	4
Wipro Ltd.	1.0355	3	0.9668	3	0.627	3

The average overall input output ratio is the best of Tata Consultancy Services Ltd. by 0.8658, followed by Infosys Ltd. by 0.9623, Wipro Ltd. by 1.0355 and lastly 1.0837 of Tech Mahindra Ltd. Average overall productivity ratio is the best of Tata Consultancy Services Ltd. with 1.1560, then Infosys Ltd. with 1.0397, Wipro Ltd. with 1.0355 and lastly Tech Mahindra Ltd. with 0.9668. On analysing the chi-square of the IT sector companies it has been observed that Infosys Ltd. has the least chi-square value and Tech Mahindra Ltd. has the highest chi-square value. The table value of chi-square at 5% level of significance with $8-1=7$ d.f. is 14.067. This shows that the null hypothesis based on the chi-square is accepted in all the above cases.

CONCLUSIONS

It may be concluded from the above analysis that the output per rupee of overall input is not satisfactory for all the companies of IT sector. The companies can take steps to reduce cost by optimally utilizing the material cost by improving the quality of raw material, improving technology of raw material processing and material handling transportation system. The labour cost can be optimally utilised by adopting techniques such as incentive schemes, workers participation in the management, job enrichment, flexitime, etc. Overhead productivity can be improved by reducing the expenses in overhead cost.

Overhead cost such as electricity expenses can be reduced by avoiding the wastage of it. By reducing the cost it ultimately increases the productivity and hence the company becomes more productive.

SCOPE FOR FURTHER RESEARCH

This study is only based on the overall productivity of IT sector companies included in Nifty 50. More studies may be possible on other companies of other sectors of Nifty 50 and also on companies of BSE and Nifty 100. Productivity can also be calculated on the basis of individual factors such as material, labour, capital, etc.

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MODERATING EFFECT OF AGE AND GENDER ON LEARNED HELPLESSNESS AND JOB ATTITUDE RELATIONSHIP

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ABSTRACT

Employees are the biggest resource for the organization. All the strategies of the organization are implemented with the help of human resources. Thus it becomes important to ensure that human resources are satisfied and take active participation regarding matters related to their job. Nowadays employees want some autonomy related to their work. If the employee feels powerless they may experience learned helplessness. Learned Helplessness at working environment can leads to disengagement, role stress, and agitated employee. This study aims at analyzing the relationship between learned helplessness and job attitudes. Results indicate that there exists a negative relationship between learned helplessness and job satisfaction and job involvement. Further, gender has a moderating effect on the impact of learned helplessness on job involvement.

Keywords: Helplessness, Satisfaction, Involvement

INTRODUCTIONS

Many times individuals feel that things are

not going the manner in which they had expected and ask themselves - "For what reason does everything terrible happen?" or may let themselves know - "We should not endeavour this, it isn't allowed." This emotion is called Learned Helplessness and the term was coined by psychologist Martin Seligman in 1965 during his study on the behaviour of dogs. Learned Helplessness can be explained as "the giving up reaction or surrendering response that starts from the conviction that whatever you do doesn't have any kind of effect as action and outcome are perceived as independent" (Seligman, 1991). When an individual accepts that a troublesome circumstance can't be avoided, it just begins to accept it. It may be because individuals think that efforts taken earlier did not bring the desired result and feel helpless to change the circumstance. Such a feeling reduces employee productivity, motivation and initiatives. Job Satisfaction defines the attitude of a person towards their job as a whole. It may be related to pay, promotion, colleagues, training, supervision, etc. When the employee is satisfied with their job, it has a positive outcome for the organization. According to Spector (1997) job

satisfaction is defined as a positive opinion of a person with regard to their job.

Saleh and Hosek (1976) defined job involvement as “the degree to which the person identifies with the job, actively participates in it and considers his performance important to his self-worth”. Similar to job satisfaction, job involvement is also one of the important job attitudes affecting various organizational outcomes. Job involvement is associated with important aspects of work behavior such as absenteeism, performance, and turnover (Baba, 1989; Kanungo, 1982)

REVIEW OF LITERATURE

Learned Helplessness

Silvet (2013) stated that learned helplessness act as a source of resistance for change and managers find it difficult to adapt with required changes when experiencing learned helplessness. According to Sahoo (1990), helplessness does not show a significant relation with organizational role stress. Shah and Pethe (2006) in their study found a positive relationship between organizational role stress and learned helplessness. Sayeed, Pestonjee and Mukherjee (1997) in their study on job characteristics and learned helplessness found that autonomy and skill variety positively impact learned helplessness.

Job Involvement

Van et al. (2003) found a positive relationship between internal locus of control and job involvement. Bhatiya et al. (2012) stated that job involvement is one of the important factors for enhancing organizational effectiveness. Zhang (2014) found that organizational citizenship behaviour has a positive relationship with job

involvement. Further, gender moderates the relationship between altruism, sportsmanship and courtesy dimension of OCB and job involvement. Varshney (2020) found that when employees think that the company is making efforts to move towards learning organizations they display high job involvement.

Job Satisfaction

Bhatti and Qureshi (2007) found that as the participation of employee increases they tend to show more job satisfaction, commitment, and increased productivity. Abraham (2012) in the study on insurance company employees job satisfaction and employee engagement, found a positive relationship between the two. Sy and O'hara (2006) found that emotional intelligence and job satisfaction are positively related. Egan (2004) found that learning organizations positively impact job satisfaction and motivation of IT employees. Further, the employee who is satisfied with their job show less turnover intention.

Rationale of the Study

Many researchers support that positive job attitudes are imperative for the smooth functioning of the organization. When the employee show satisfaction and involvement in their job, it leads to more employee engagement (Bhatti et al., 2007); improved organizational citizenship behaviour (Zhang, 2014); enhanced organization effectiveness (Bhatiya et al., 2012). However, when an employee feels powerless with respect to their work, their performance tends to decline and they experience learned helplessness. Learned helplessness has a negative influence on job attitude but still, the concepts have not been studied much. This study is an attempt to

Validity helps to ensure that the indicators are capable of measuring the construct. In this study convergent and discriminate validity was checked. For convergent validity, CR >0.7 and AVE > 0.5 (Hair et al., 2010). To establish discriminant validity, square root of AVE should be more than inter-construct correlations. 4 items from learned helplessness scale were deleted because of low factor loading. Results show that validity is established as all the requirements are met and composite reliability is also more than 0.7.

Table 2: Model Fit Measures			
Measure	Estimate	Threshold	Interpretation
CMIN/DF	1.791	Between 1 and 3	Acceptable
CFI	0.934	>0.95	Acceptable
SRMR	0.049	<0.08	Acceptable
RMSEA	0.053	<0.06	Acceptable
PClose	0.193	>0.05	Acceptable

Table 2 presents the model fit indices estimates and all are within the acceptable limit as suggested by Hu and Bentler (1999).

Table 3: Path Analysis Results							
Measurement Path		Regression	Estimate	S.E.	t-value (C.R.)	P	Hypothesis Status
JI	<---	LH	-.231	.066	-3.496	***	H1:Supported
JS	<---	LH	-.628	.046	-13.761	***	H2:Supported
*** p < 0.05							

From table 2 it is interpreted that learned helplessness negatively impact job involvement (t value= -3.496) and job satisfaction (t value= -13.761). It indicates that when IT sector employees experience more learned helplessness, there job satisfaction and job involvement is reduced.

Table 4: Moderating effect

Demographic	Groups	Estimate	S.E.	C.R.	z-value	Hypothesis Status
Job Involvement						
Gender	G1- Male	-.326	.088	-3.69	(G1 & G2) = 2.26 ***	H4:Supported
	G2- Female	-.026	.103	-.252		
Age	A1-20-35 years	-.343	.108	-3.16	(A1&A2)=-.094 NS (A1&A3)= .805NS (A2&A3)= .877NS	H6:Not Supported
	A2- 35-50 years	-.137	.094	-1.46		
	A3- 50 years and above	-.155	.173	-.899		
Job satisfaction						
Gender	G1- Male	-.605	.064	-9.44	(G1 & G2)=-.571 NS	H3:Not Supported
	G2- Female	-.659	.069	-9.48		
Age	A1-20-35 years	-.646	.070	-9.23	(A1&A2)= 1.43NS (A1&A3)=.922NS (A2&A3)= .922NS	H5:Not Supported
	A2- 35-50 years	-.656	.071	-9.17		
	A3- 50 years and above	-.550	.098	-5.63		
*** p < 0.05						

Multi group moderation test was done and to analyze moderation effect, critical ratio was computed to identify the difference in regression weight between gender group and age group. Z-value of gender group on job involvement is more than 1.96 indicating that gender has a moderating effect on the impact of learned helplessness on job involvement. Age and gender does not act as a moderator for job satisfaction and learned helplessness.

CONCLUSIONS

The purpose of the study was to analyze the impact of learned helplessness on job attitudes. Moderation effect of age and gender was also analyzed. Learned helplessness makes the employee feel that they have no control over the results and thus they give up. Employees not even try when the situation is favourable. Such a feeling reduces the efforts of the employees. Our findings indicate that learned helplessness when experienced by employees negatively impacts

their job involvement and job satisfaction. When the moderating effect of age and gender was analyzed, only gender acts as a moderator on the relationship between learned helplessness and job involvement. Further, no moderation effect was observed for age and gender on the relationship between learned helplessness and job satisfaction. It is important for the organization to address the issue of learned helplessness and take initiatives to increase employee job involvement and satisfaction.

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ROLE OF SERVICE QUALITY IN CUSTOMER SATISFACTION: A COMPARATIVE ANALYSIS OF PRIVATE AND PUBLIC SECTOR BANKS IN INDIA

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ABSTRACT

The performance of banks can be measured by providing quality service to the customers in order to achieve competitive edge. The level of customer satisfaction can be determined through the quality of product or services provided to the customers and it is believed that satisfied customers develop and maintain relationship with the organization and purchase more products or services regularly than the dissatisfied customers. The purpose of this paper is to examine the impact of various service quality variables on the level of customer satisfaction and compare the private and public sector banks using a sample from Delhi NCR. The sample is consisting of responses from 240 customers of public sector banks and 238 customers of private sector banks. Forward stepwise regression was used for the purpose of analysis. The results indicated that in case of private sector banks, well managed policies for transactions security, employees' courtesy with the customers, personalized services to customers, bank's commitment towards the customers, have positive impact on customer satisfaction. On the other hand, in case of

public sector banks, commitment towards the customers, accuracy of account information, and information about the new and attractive schemes and suggestion for the best possible course of action have positive impact on customer satisfaction.

Keywords: Service Quality, Customer Satisfaction, Forward Stepwise regression, private sector banks, public sector banks

INTRODUCTIONS

The banking system of any country has a greater place in the service sector, and is treated as an essential institutional and functional vehicle for the transformation of the economy of the country, therefore, the banking sector acts as a barometer of the financial system. After the post-liberalization and globalization period in the Indian banking system, the entry of private and foreign bank players made the Indian banking sector more competitive. Consequently, customers have more choices to select their banks in the modern era of the Indian banking system (Singh & Arora, 2011). Hence, it is necessary for public sector banks to

serve their target customers' needs and demands by offering superior service quality and value than their counterparts. Service Quality plays a very important role in achieving customer satisfaction in all service sectors, the reason being services are perishable and intangible in nature, therefore, the person who delivers the service, and the quality of the delivered service, can create a long lasting impression on customer's mind. Therefore, in attaining customer satisfaction, service quality is becoming a tool for the success of the banks through retention of customers and expansion of existing customer base.

Customer Satisfaction is a mental state, which arises from the comparison of the results of customer expectation prior to purchase and perceived performance after the purchase of a product or service. Customer are satisfied if they are happy with their purchase outcome and achieve their goal without any hassle. It is believed that satisfied customers develop and maintain relationship with the organization and purchase more products or services regularly than the dissatisfied customers (Eggert and Ulaga, 2002).

Service Quality can be defined as the difference customer's expectation of service performance prior to the service encounter and their perception of the service after it is received (Asubonteng, Cleary, and Swan, 1996). Service Quality is recognized as a major factor responsible for gaining competitive advantage and maintaining satisfactory relationship with customers (Zeithaml and Bitner, 2000). Parasuraman, Zeithaml and Berry (1988) conceptualized SERVQUAL model with five dimensions consisting of tangibility, reliability, empathy, assurance, and responsiveness.

SERVQUAL is a widely accepted standard for measuring service quality.

LITERATURE REVIEW

Nambiar, Ramanathan, Rana and Prashar (2019) recognized the moderating effect of customer knowledge on perceived service quality and customer satisfaction through customer value evaluation in the Indian banking sector. The results of their study indicated that perceptions of service quality positively impacted customer value evaluation. Moreover, customer knowledge strengthened the relationship that the empathy and responsiveness dimensions of service quality had with customer value evaluation and moderated the relationship that reliability and tangibility dimensions had with customer value evaluation.

Ashraf and Venugopalan (2018) using SERVQUAL model compared the service quality between public and private sector banks in Kerala. The study was of an analytical nature based on the primary data collected from customers of public and private sector banks. The results of the study indicated that there is no significant difference between public sector and private sector bank in service quality dimensions and level of customer satisfaction

Kant, Jaiswal and Mishra (2017) identified the dimensions of service quality and also examined the effect of service quality dimensions on customer satisfaction in the selected public sector banks in India. The findings revealed that tangibility and assurance dimensions were most important predictors of customer satisfaction among all five dimensions of service quality. In addition, the results also validated that customer satisfaction is an important antecedent

for influencing corporate image, and therefore customer satisfaction acts as a linkage between service quality dimensions and corporate image in the Indian context.

Sehgal and Chawla (2017) analyzed the gap between perceived service quality level and expected service quality level of customers using internet banking in Northern India with special reference to State Bank of India. The t-test and chi-square test were used for analysis purpose and the results indicated that perceptions are lower than expectations for the dimensions of service quality such as ease of use, reliability, responsiveness, security, convenience, efficiency, technical characteristics, cost effectiveness and user involvement but in other dimensions like accessibility and product portfolio the perception was as per the expectations of customers.

Kaur and Singh (2017) conducted a study to find the relationship between perceived service quality and customer satisfaction in the direct to home TV Industry. The results found that reliability was the most significant dimension of service quality which had an impact on customer satisfaction.

Kainat (2017) measured the impact of service quality dimensions (Reliability, Assurance, Tangibility, Empathy, Responsiveness) on customer satisfaction by using SERVQUAL model and found that responsiveness was the strongest predictor followed by reliability, tangibility, assurance and empathy.

Justin, Arun and Garima (2016) examined the impact of various service quality variables on the overall satisfaction of customers and found that the variables of service quality that are positively associated with overall customer satisfaction are not same in private sector banks and public sector banks in India.

Arora (2014) conducted a study to explore the dimensions of customer perceived service quality in the context of Indian banking industry with respect to public and private banks in Delhi. It also studied the Gap analysis between all dimensions of service quality individual bank-wise as well as Public Sector Banks vs. Private Sector Banks. The results indicated that existence of gap in any dimension of service quality will directly impact the level of customer satisfaction as well as level of customer loyalty.

Kumari and Rani (2011) identified the customer perception towards service quality offered by bank through the relationship of five factors along with demographic characteristics of customers through their study conducted in Chennai on a sample of 304 bank customers. Convenient sampling method was used for data collection. The results of ANOVA (analysis of variance) revealed that age, gender, and occupation have no significant effect but income and qualification have significant effect on perceived service quality of customers

Jamal and Anastasiadou (2009) analyzed in their study that reliability, tangibility, responsiveness and assurance have significant and positive impact on customer satisfaction, whereas empathy has a significant but negative effect on customer satisfaction.

METHODOLOGY

The present paper is exploratory in nature. A structured questionnaire with 15 variables of service quality with five different dimensions which are based on SERVQUAL model was used. **A five-point Likert scale** (1-Strongly disagree, 2- Disagree, 3- Neither agree nor disagree, 4- Agree, 5-Strongly agree) was used to measure

questionnaire responses. The respondents were selected on the basis of convenient sampling technique. The sample banks were selected on the basis on market capitalization. The top five public sector as well as top five private sector banks were selected as sample banks.

Objective of the study

The objective of the study is to identify the most important variables of Service Quality which have significant impact on Customer Satisfaction with respect to private sector and public sector banks in India.

Analysis and Results

In the present study the dependent variable is level of customer satisfaction and 15 items of service quality, based on SERVQUAL model are used as independent variables in the forward stepwise regression. These 15 independent variables of service quality are as follows: I can find what I need on my bank's site with few clicks, information provided on the site is organized in a good manner, IT banking services provide accurate account information, well managed policies for ensuring secure transactions, multiple services of my bank enhance customers' confidence and dependence, the employees are slow to provide appropriate

services to the customers, bank provides the services as promised, the employees are courteous with the customers, my bank honors its commitment towards the customers, the employees are knowledgeable to solve customers' problem, the employees are enthusiastic towards customers' needs, the bank always informs about the new and attractive schemes and suggests the best possible course of action, the employees provide personalized services to customers, in case of emergency, the branch manager is easily accessible, the bank operates a regular and effective complaint handling process.

Impact of Service Quality on Customer Satisfaction in Private Sector Banks

To find out the variables that have a significant impact on level of customer satisfaction multiple regression and forward stepwise regression analysis are employed. The forward regression model algorithm adds one independent variable at a time. It began with one, which explained maximum variation in the level of customer satisfaction and continue to add more independent variables to the regression, one-by-one. The model is verified at each step for the best fit and variable ceased to be added once the regression model is optimized.

Table 1: Model Summary

Model	R	R ²	Adjusted R ²	S.E. of the Estimate
1	0.409	0.168	0.164	0.620
2	0.492	0.243	0.236	0.593
3	0.534	0.285	0.276	0.577
4	0.549	0.301	0.289	0.572

(a). Dependent Variable: Sat

(c). Predictors: (Constant), Rel1, Ass3

(e). Predictors: (Constant), Rel1, Ass3, Res1, Ass2

(b). Predictors: (Constant), Rel1

(d). Predictors: (Constant), Rel1, Ass3, Res1

Table 1 shows that the forward stepwise regression took four steps to reach model optimization for private sector banks. After running the forward stepwise regression, the result provided four independent variables out of a total of 15 independent variables of service quality that have significant impact on customer satisfaction. It also indicates that the value of R² equals to 0.301 which indicates that 30.1 percent of variation in the dependent variable is explained by the above-mentioned independent variables.

Table 2: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
4	Regression	32.834	4	8.209	25.077	0.000
	Residual	76.270	233	0.327		
	Total	109.104	237			

From Table 2 (ANOVA), it can be seen that the value of R² is significant as indicated by the p-value = 0.000 (which is below the 5 percent assumed level of significance), which shows that the model is statistically significant.

Table 3: Coefficient Table

Model 4 Independent Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.256	0.272		4.624	0.000
well managed policies for ensuring secure transactions	0.242	0.054	0.266	4.501	0.000
Employees of bank are courteous with the customers	0.146	0.059	0.171	2.472	0.014
Employees of bank provide personalized services to customers	0.158	0.046	0.198	3.461	0.001
Bank honors its commitment towards the customers	0.129	0.056	0.157	2.313	0.022

The Coefficient table (Table 3) indicates the estimated value of coefficient of only four variables of the total variables are statistically significant, because the p-value of these variables are less than the assumed level of significance (0.05). Therefore, this indicates that these four variables have significant impact on customer satisfaction.

Table 4: Excluded Variables

Model 4		βIn	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	I can find what I need on my bank's site with few clicks	.064	1.054	.293	.069	.809
2	Information provided on the site is organized in a good manner	.097	1.685	.093	.110	.892
3	IT banking services provide accurate account information	.102	1.739	.083	.113	.862
4	Multiple services of my bank enhance customers' confidence and dependence	.042	.625	.533	.041	.659
5	The employees are slow to provide appropriate services to the customers	-.049	-.811	.418	-.053	.808
6	My bank provides customers the services as promised	.103	1.538	.125	.100	.666
7	The employees of my bank are knowledgeable to solve customers' problem	.060	1.037	.301	.068	.900
8	The employees of my bank are enthusiastic towards customers' needs	.067	1.133	.258	.074	.869
9	My bank always informs about the new and attractive schemes and suggests the best possible course of action	.118	1.945	.053	.127	.812
10	In case of emergency, the branch manager is easily accessible	.043	.636	.525	.042	.670
11	The bank operates a regular and effective complaint handling process	-.007	-.118	.906	-.008	.775

Table 4 shows that out of total 15 variables, 11 variables namely, I can find what I need on my bank's site with few clicks, information provided on the site is organized in a good manner, IT banking services provide accurate account information, Multiple services of my bank enhance customers' confidence and dependence, the employees of my bank are slow to provide appropriate services to the customers, my bank provides customers the services as promised, the employees of my bank are knowledgeable to solve customers' problem, The employees are enthusiastic towards customers' needs, bank always informs about the new and attractive schemes and suggests the best possible course of action, in case of emergency, the branch manager is easily accessible, and the bank operates a regular and effective complaint handling process, have been excluded at the

last step of the model. Therefore, this indicates that these variables have no significant impact on customer satisfaction.

Hence on the basis of the analysis the proposed equation for the model with respect to the private sector banks is:

Customer Satisfaction = $1.256 + 0.242$ (well managed policies for ensuring secure transactions) $+ 0.146$ (bank employees are courteous with the customers) $+ 0.158$ (the employees provide personalized services to customers) $+ 0.129$ (bank honors its commitment towards the customers)

This estimated regression equation shows that the independent variable like: well managed policies for ensuring secure transactions, the bank employees are courteous with the customers at all levels, the employees provide personalized services to customers, bank honors its commitment towards the customers are positively related to the dependent variable (customer satisfaction) because all these variables have their unstandardized coefficient B values are positive. This means that, while keeping other factors constant, if well managed policies for ensuring secure transactions increases by 1 unit, level of customer satisfaction will increase by 0.242 units: if the bank employees are courteous with the customers at all levels increases by 1 unit, level of customer satisfaction will increase by 0.146 units: the employees provide personalized services to customers increases by 1 unit, level of customer satisfaction will increase by 0.158 units: and finally if bank honors its commitment towards the customers increases by 1 unit, level of customer satisfaction will increase by 0.129 units.

IMPACT OF SERVICE QUALITY ON CUSTOMER SATISFACTION IN PUBLIC SECTOR BANKS

Table 5: Model Summary

Model	R	R ²	Adjusted R ²	S.E. of the Estimate
1	0.364	0.132	0.129	0.774
2	0.421	0.177	0.170	0.756
3	0.449	0.201	0.191	0.746

(a). Dependent Variable: Sat

(b). Predictors: (Constant), Ass3

(c). Predictors: (Constant), Ass3, IT3

(d). Predictors: (Constant), Ass3, IT3, Emp3

Table 5 shows that the forward stepwise regression took three steps to reach model optimization for public sector banks. After running the forward stepwise regression, the result provided three independent variables out of a total of 15 independent variables of service quality that have significant impact on customer satisfaction. It also indicates that the value of R² equals to 0.201 which indicates that 20.1 percent of variation in the dependent variable is explained by the independent variables.

Table 6: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
3	Regression	33.141	3	11.047	19.844	0.000
	Residual	131.376	236	0.557		
	Total	164.517	239			

From Table 6 (ANOVA), it can be seen that the value of R² is significant as indicated by the p-value = 0.000 (which is below the 5 percent assumed level of significance), which shows that the model is again statistically significant in case of public sector banks also.

Table 7: Coefficient Table

Model 3 Independent Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.976	0.290		6.815	0.000
My bank honors its commitment towards the customers	0.201	0.048	0.266	4.206	0.000
IT banking services provide accurate account information	0.181	0.053	0.215	3.391	0.001
My bank always informs about the new and attractive schemes and suggests the best possible course of action	0.147	0.055	0.158	2.688	0.008

The Coefficient table (Table 7) indicates the estimated value of coefficient of only three variables of the total variables are statistically significant, because the p-value of these variables are less than the assumed level of significance (0.05). This indicates that these three variables have significant impact on customer satisfaction.

Table 8: Excluded Variables

Model 4		β In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	I can find what I need on my bank's site with few clicks	0.067	0.809	.419	.053	.499
2	information provided on the site is organized in a good manner	0.099	1.305	.193	.085	.589

3	my bank is having well managed policies for ensuring secure transactions	0.100	1.457	.146	.095	.718
4	multiple services of my bank enhance customers' confidence and dependence	0.118	1.728	.085	.112	.722
5	the employees of my bank are slow to provide appropriate services to the customers	0.059	0.930	.354	.061	.831
6	my bank provides customers the services as promised	0.118	1.454	.147	.094	.510
7	the employees of my bank are courteous with the customers at all levels	0.106	1.357	.176	.088	.556
8	the employees of my bank are knowledgeable to solve customers' problem	-0.122	-1.800	.073	-.117	.734
9	the employees of my bank are enthusiastic towards customers' needs	-0.108	-1.571	.117	-.102	.707
10	the employees of my bank provide personalized services to customers	0.107	1.634	.103	.106	.783
11	in case of emergency, the branch manager is easily accessible	0.029	0.457	.648	.030	.823
12	the bank operates a regular and effective complaint handling process	0.107	1.727	.085	.112	.875

Table 8 shows that out of total 15 variables, 12 variables namely, I can find what I need on my bank's site with few clicks, information provided on the site is organized in a good manner, Multiple services of my bank enhance customers' confidence and dependence, the employees of my bank are slow to provide appropriate services to the customers, bank provides customers the services as promised, the employees of are knowledgeable to solve customers' problem, the employees are enthusiastic towards customers' needs, the employees of my bank provide personalized services to customers, my bank is having well managed policies for ensuring secure transactions, in case of emergency, the branch manager is easily accessible, and the bank operates a regular and effective complaint handling process, have been excluded at the last step of the model. Therefore, this indicates that these variables have no significant impact on customer satisfaction.

Hence on the basis of the analysis the proposed equation for the model with respect to the public sector banks is:

Customer Satisfaction= 1.976+ 0.201 (my bank honors its commitment towards the customers) + 0.181 (IT banking services provide accurate account information) + 0.147 (my bank always informs about the new and attractive schemes and suggests the best possible course of action)

This estimated regression equation shows that the independent variable like: my bank honors its commitment towards the customers, IT banking services provide accurate account information, and my bank always informs about the new and attractive schemes and suggests the best possible course of action, are positively related to the dependent variable (customer satisfaction) because all these variables have their unstandardized coefficient B values are positive. This means that, while keeping other factors constant, if my bank honors its commitment towards the customers increases by 1 unit, level of customer satisfaction will increase by 0.201 units: if IT banking services provide accurate account information increases by 1 unit, level of customer satisfaction will increase by 0.181 units and finally if my bank always informs about the new and attractive schemes and suggests the best possible course of action increases by 1 unit, level of customer satisfaction will increase by 0.147 units.

CONCLUSIONS

In this paper the level of customer satisfaction is considered the dependent variable and 15 variables on the basis of SERVQUAL model are considered independent variable. On the basis of analysis it is concluded that in case of private sector banks, well managed policies for ensuring secure transactions, employees of bank are courteous with the customers at all levels, employees of bank provide personalized services to customers, bank honors its commitment towards the customers, have positive impact on customer satisfaction. The β -value is the highest for well managed policies for ensuring secure transactions (0.242). This indicates that customers are highly satisfied when they get assurance for secured transactions. Personalized services to customers has a β -value of 0.158 therefore it may be concluded that this variable is one of the most important aspect of service quality which contributes to customer satisfaction. Bank employees are courteous with the customers (β -value of 0.146) bank honors its commitment towards the customers (β -value of 0.129) also contribute positively to customer satisfaction.

On the other hand, in case of public sector banks, commitment towards the customers, accuracy of account information, and information about the new and attractive schemes and suggestion the best possible course of action have positive impact on customer satisfaction. The β -value for commitment towards the customers (0.201) is highest which shows that customers are satisfied when the bank honors commitment to its customers. Customers also feel satisfied when they get accurate information (β -value of 0.181) and information about the new schemes and offers (β -value of 0.147). Public sector banks are considered to have a vast knowledge of their products in comparison to private sector banks.

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STRATEGIC PLANNING IN FINANCIAL SECTORS OF TANZANIA

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ABSTRACT

The basic purpose of this study was to evaluate the strategic planning practices by Financial Sectors and how owners and managers of these Financial Sectors play their roles in it in Tanzania. The other study objective was to ascertain if differences in strategic planning practices existed with respect to Strategic Planning in Tanzania's Financial Sectors. The study discovered the main scopes of strategic planning are environmental scanning, mission and vision, implementation incentives, time horizon of strategic planning, evaluation and control, employee involvement in strategic planning, the structure of strategic planning as well as source of information concerning the environment. Consequently the study discovered that vision and mission, a formality of strategic planning and evaluation and control were the most valued factors. The study concluded that there is insignificant statistical difference among managers and owners in their positions during strategic planning process. The study offers various dimensions of strategic planning that

Financial Sectors of Tanzania can implement to be competitive and sustainable.

Keywords: Financial Sectors, strategic planning, evaluation, monitoring, motivation, growth, planning barriers, Vision, Mission, Tanzania.

INTRODUCTIONS

The article analytically studies the apparent implication of strategic planning in the Financial Sectors of Tanzania and practice and highlights essential complications with how this problem has been resolved. Researcher demonstrates principally that the experiences of Financial Sectors' strategic planning have not properly been taken into consideration and that the present focus on the business rather than the owner-manager is unsuitable to a better indulgent of strategic planning matter. The study inducements together two bodies of Financial Sectors literature under which have been considered as independent parts of study namely, business strategic planning and start-up motivation classifying conceptual model based towards business ownership ambitions

to clarify levels of business strategic planning in Financial Sectors. Consequently, the model describes repercussions for how management and other initiative bodies aimed at improving the performance and growth of Financial Sectors should be developed.

Significant evidence demonstrates that strategic planning leads to increased firm performance. Yet, the majority of Financial Sectors do not plan and the reasons are not well understood. It is then recognized that Financial Sectors play a crucial role in jobs creation and income generation in Tanzania. 97% of the business bodies of Tanzania are Financial Sectors, and they represent about 30% of the country's GDP, due to Tanzania Chamber of Commerce, Industry, and Agriculture (TCCIA). Financial Sectors all over the world and in Tanzania, in particular, can be easily established since their requirements in terms of capital, technology, management, and even conveniences are not as demanding as the case for large enterprises in Tanzania. These Financial Sectors can correspondingly be established in countryside locations and add value to agro products, and facilitate the spreading of enterprises. Indeed Financial Sectors development is diligently associated with the more reasonable dissemination of income and consequently significant as esteems poverty alleviation.

Much of the literature on strategy informs us that the enterprises must actively plan for a better future to compete effectively and survive. Accordingly, Financial Sectors owner-managers have been accused of being "strategically myopic" and lacking the "long-term vision as to where their company is headed" (Salum, Gakure, & Othiambo, 2017). The apprehension is that by disregarding strategic planning, the

Business Financial Sectors may not succeed their full performance as well as growth potentials, and their business survival might be placed at higher risk (Richard, Devinney, Yip, & Johnson, 2009). Meanwhile, considerable study effort has been exhausted on identifying 'barriers' that obstruct planning so that these can be overcome or otherwise mitigated to inspire the business strategic planning in Financial Sectors

FINANCIAL SECTORS OF TANZANIA

Financial Sectors are increasingly becoming more important for poor and developing countries (Neumann & Dul, 2005). Financial Sectors are considered an instrument for economic growth for the nation and poverty reduction through the establishment of various jobs and incomes for the surrounding people (Ebner, 2014; OECD, 2013; Richard et al., 2009, 2009 Salum et al., 2017). Financial Sectors development is also considered as a tool for economic survival during the country's crises (Flemming, 2014; Mori, Kazungu, Mchopa, & Box, 2014). Also, Financial Sectors are considered as the private sectors for employment generation and sustainable growth" (Majama & Magang, 2017). Despite Financial Sectors the most involvement in countries economic development and growth, their respective growth and economic development in those developing countries were essentially withdrawn from the access of finance, under performance managerial skills, and lack of employees training opportunities and stick on higher cost of production inputs (Sandada, 2015).

Consequently, due to the industry and trade authority bodies in Tanzania, small businesses are collectively defined under the nomenclature

Financial Sectors. The term Financial Sectors terminology is used to mean Financial Sectors. Also, it is referred to as Financial Sectors. Consequently, micro enterprises or small business are those comprises up to four people specifically in family members with an investment of not exceeding Tshs 5.0 million, the majority of business which fall under the informal business sector. Furthermore, small

business enterprises are typically formalized engaging from 5 to 49 members of employees with the capital of business investment from TSHS.5.0 million up to TSHS.200 million. Medium business enterprises used to employ about 50 to 99 employees and use the capital for investment from about Tshs 200 to 800 million. (Tanzania Financial Sectors policy 2004) This is illustrated in the following table 1:

Table1: Showing categories of Financial Sectors' in Tanzania

Category	Employees	Capital Investment (Tshs)
Micro	1-4	Maximum of 5 Million.
Small enterprise	5-49	5 - 200 Million.
Medium enterprise	50-99	200 - 800 Million.
Large enterprise	100+	More than 800 Million.

Source: Ministry of Finance and Trade, 2018

STRATEGIC PLANNING

Strategic planning, among other things, deals with assessing the internal and external business environment for the purpose of identifying organizational strengths, weaknesses, opportunities, and threats (Katunzi & Qin, 2010). Based upon these Financial Sectors that firms formulate and implement organizational goals and determine the strategies to achieve them. Further, business strategic planning used to prepare for future beneficial contingencies and account for business environmental dynamics and business complexity. This involves the need to build alternative future scenarios and configurations. Though the future cannot be projected, it is possible to prepare

for the future and/or alternative “futures” and align the enterprise accordingly. However, business strategic management process, the business planning is not apprehensive with the development of business strategic goals, missions and visions but rather engage with extrapolating current tendencies into the future outcome. Consequently, strategic planning provides procedures and directives for the achievement and accomplishment of specific targeted goals and visions. It stipulates the basic situations as well as the scope for future business activities and is thus a key instrument for the overall strategic management. Financial Sectors are often the main drivers of economic growth and their survival and success are crucial to economic stability (Sandada,

2015). Similarly, as the number of Financial Sectors increases so does competition, which might then result in a decrease in prices, low customer base, or both. This influence, in turn, erodes existing profits and create less encouragement for entrepreneurs to start Financial Sectors. In this context adoption of strategic planning plays an important role in the survival of Financial Sectors because it helps to create business opportunities and combat pressure from competition.

The Government of Tanzania initiated its first major attempt to promote the small industries sector as far back as 1966 with the formation of the National Small Industries Corporation (NSIC) under the National Development Corporation (NDC).

There should appear that an inventory of these past and current Financial Sectors development initiatives have not been compiled, nor has there been a systematic effort to learn lessons from project assessment. This phenomenon has incomplete the exchange of “good practice” models and approaches. The Ministry of Industry and Trade report noted that efforts should be made to improve coordination between donors supporting the Financial Sectors sector. Attaining coordination at the authority level is also termed as the most factor in improving and developing the policy and better programme of entrepreneurs’ environment for Financial Sectors (MIT, 2004)

STRATEGIC PLANNING PROCESS AND FINANCIAL SECTORS

The strategic planning elements that are crucial for strategic planning are the vision, Mission statement, Objectives, Strategies and action

plans on Financial Sectors. An employee participation in the strategic planning, evaluation and control, the environmental scanning, implementation incentives, time horizon of strategic planning, as well as the formality of business strategic planning and source of information concerning the environment was the key sources of strategic planning on Financial Sectors. The vision and mission are the basic elements of the business strategic planning process on enterprise’s Financial Sectors growth. The difference between mission and vision towards their time component; vision is demonstrations of what the company will become and do in the future, whereas mission defines what the company in daily basis does (Majama & Magang, 2017). The vision is considered as a sources of business energy for the achievement of formulated objectives (Majama & Magang, 2017). Vision, Mission, and Strategies are interconnected elements of entrepreneurial perspective; together they turn the entrepreneur’s wish for a positive change into a managerial tool for the achievement of that change (Smith, 2012). Ambitious entrepreneurs who manage growth firms form an intensive and strong vision about the value they can create (Katunzi & Qin, 2010). Even if in a small firm the entrepreneur usually acts as a strategic manager taking all strategic and operative decisions (Mori et al., 2014), strategic vision forms a basis for strategy development and strategic planning.

For the firm to perform better and grow, the business entrepreneur needs to articulate an exact, strong vision and mission for their firm (Ebner, 2014). Subsequently, the company’s vision, growth will be strengthened by a strategic

focus on market, growth, and profits. Indeed, planning of corporate or business strategy needs to be centered on the market, product, and service (Salum et al., 2017). Vision and objectives are the bases of strategies and strategic planning. For an entrepreneur, it is important to set a clear vision, and business growth-oriented objectives, and a belief that the objectives can be achieved by the respective entrepreneurs (Ebner, 2014). In order to be successful and to grow, the firm needs to formulate high, optimistic, growth-oriented objectives (Flemming, 2014). Subsequently, the addition to growth objectives and other objectives (financial or non-financial, personal or non-personal) may play important roles in the actual achievement of small firm growth. Action plans on the other are the pathways or avenues that guide the entrepreneur on how to reach the set objectives. Hence, the action planning typically comprises determining who will do what and by when the goal will be achieved and in what order and process to under-go in order for the organization to reach its business strategic goals.

STUDY OBJECTIVES

RESEARCH OBJECTIVES

The main objective of this study is

- To determine the relationship exist between strategic planning and business performance in Financial Sectors

The sub-objectives are

- To identify the level of involvement in the process of strategic planning among Financial Sectors
- To examine the barriers faced by Financial Sectors engaging in strategic planning

STUDY AREA AND METHODOLOGY

Area of the Study

This study was conducted in the United Republic of Tanzania in Dar es Salaam City. The study focused on Financial Sectors.

RESEARCH METHODOLOGY

Secondary data were used in this study. The method used is content analysis to extract secondary information from the United Republic of Tanzania. The Source of data used was from the Ministry of Industry and Trade (mit.go.tz/), Bank of Tanzania (www.bot.co.tz) and the United Republic of Tanzania Chamber of Commerce (www.tanzaniainvest.com/Financial Sectors).

RESULTS AND DISCUSSION

The finding is supported by Ebner (2014) concluded that the strategy and performance of manufacturing Financial Sectors in Japan and Sri Lanka are related. Furthermore, the study of Majama and Magang (2017) reported that strategic planning contributes to the relationship exist within the overall enterprises performance of the small business. According to the findings of the study, the finding suggests that strategic planning is important for the business to succeed. Divergent to anticipation, the results have shown that the Financial Sectors in the study area have working strategic plans upon which their conclusions are based. The results revealed Financial Sectors in Tanzania practiced and used formal strategic plans in their operations. The Financial Sectors that practiced and developed their resources strategically were likely to perform much better. The implementation of working strategic plan as indicated by the study has contributed to the significant growth in sales of

the organization relative to the market leader in the industry Less than 12.52% NPL Ratio they are performing better due to industry average (12.52%) and those with higher than 12.52% NPL Ratio, they are underperforming as per industry average. The study of Sandada (2015) titled the strategic planning of Financial Sectors in Malaysia: types of strategies in the aftermath of economic downturn concluded that there is a significant relationship between having objectives and formulating strategic planning and the performance of an organization. This finding supported Richard et al. (2009), in their study on 'effects of rational strategic planning on financial performance in small businesses' using a meta-analysis. Their study revealed that strategic planning is positively associated with financial performance.

INSTITUTIONAL SUPPORT

The following government and parastatal organizations are providing support to promote Financial Sectors development in Tanzania. The Ministry of Industry, Trade and Investment assume overall responsibility for supporting the country's Financial Sectors policy and has a Financial Sectors Unit charged with creating a conducive environment for the advancement and reinforcement of informal sectors. Its functions include:

- Developing, monitoring, evaluating and reviewing the implementation of the Financial Sectors policy, guidelines, legislation, and standards;
- Developing mechanisms to ensure that Financial Sectors comply with environmental regulations and thus promoting environmentally responsible entrepreneurship;

- Developing and implementing strategies for enhancing graduation and formalization of the informal sector; and

- Developing strategies for facilitating Financial Sectors in access to financial services.

After reviewing some of these institutions profile the study discovered that Tandahimba Community Bank Ltd, Tanzania Women's Bank Plc (www.womensbank.co.tz/), Meru Community Bank (www.mecob.co.tz/), Kagera Farmers' Cooperative Bank (kfcbltd@yahoo.com) and Efatha Bank have not defined a strategic planning element to its website gallery, and nowhere is stated so that the shareholders and donors can access so that they can monitor company operations (www.efathabank.co.tz/). Although Covenant Bank has defined clear Vision, mission and its values, but it failed to define clear objectives, strategies, and action plan (www.covenantbank.co.tz/). Njombe community Bank has stated clear all strategic planning elements on its website (www.njombebank.co.tz/). Kilimanjaro Co-operative Bank Ltd also has stated clear all strategic planning elements on its website (www.kilicobank.co.tz/).

This is the key issues for Financial Sectors in Tanzania to collapse because some of the Financial Sectors are not working as per their strategic planning. Most of Owners/managers tend to work without taking into considerations to the strategic planning document. This leads to some of Financial Sectors not to set objectives, strategies and action plan to their employee. Due to lack of this also leads to staff demoralization for the policy is not fully practiced. Under this situation staff motivations are not considered leads to employee underperforming. The customers will not get sufficient service from these unsatisfied employees, the leads to losing customers.

QUARTERLY PERFORMANCE

Table 4: ASSET QUALITY(Non- Performing Loans) AS AT 30/9/2 017

SN	Institutions	Non-Performing Loans	Gross Loans	NPL Ratio	Industry Average
1	CRDB Bank PLC	459,756,270,646	3,161,309,179,141	14.54%	12.52%
2	African Banking Corporation (T) Ltd	64,974,931,928	217,268,290,356	29.91%	12.52%
3	Twiga Bancorp	13,198,347,392	39,171,910,680	33.69%	12.52%
4	Njombe Community Bank	1,062,821,348	2,403,621,664	44.22%	12.52%
5	Ecobank Tanzania Ltd	72,445,790,099	162,657,277,205	44.54%	12.52%
6	TIB Development Bank Ltd	289,594,138,925	628,536,816,606	46.07%	12.52%
7	Kagera Farmers' Cooperative Bank	1,431,518,458	2,572,878,257	55.64%	12.52%
8	Efatha Bank	3,853,170,837	6,600,362,982	58.38%	12.52%
9	Tanzania Women's Bank Plc	9,231,900,033	15,323,424,110	60.25%	12.52%
10	Covenant Bank	13,760,549,082	16,794,837,807	81.93%	12.52%

Source: Bank of Tanzania (BOT)

Due to failure of utilizing strategic planning for these Institutions as shown in red mark within "NPL Ratio" column which are beyond industry average (12.52%) the study determined that the companies are making loss due to low rate of returning loan supplied, so these institutions ended posting a big loss according to above table 4 as described in red mark. Due to this low performance The Bank of Tanzania (BOT) to withdraw the banking license of Njombe Community Bank, Meru Community Bank, Covenant Bank, Kagera Farmers' Cooperative Bank, and Efatha Bank, under the basis of their working undercapitalization. Bank of Tanzania (BoT) released the notice to the audience on 4th January 2018 that "This measure has been taken upon the determination by Bank of Tanzania that the aforesaid banks are critically undercapitalized, leads to against the given requirements of the business Banking and Financial Institutions Act, 2006 and its terms and regulation. Consequently, the continuation of their business operations in their low current capital position is very dangerous to the interest of the depositors and bearings a risk to the business stability of the financial management system. Consequently, the BOT has taken ownership of the

banks and located them under obligatory liquidation through the Deposit Insurance Board (DIB). Subsequently, every financial institution which is given a license to carry on business banking in Tanzania must contribute to the premium Deposit Insurance Fund.

Other banks like, Tandahimba Community Bank Ltd, Kilimanjaro Co-operative Bank Ltd, and the state-run Tanzania Women's Bank Plc partnered with CRDB until June 30, 2018. The partnered banks have to raise the Tsh. 2 billion capital or have their licenses revoked. The current President and Prime Minister of the United Republic of Tanzania on separate occasions directed the Central Bank to take actions against non-performing financial institutions. "Rather than having 58 banks in the country, it's better to have fewer viable banks" said President Magufuli.

Financial Sectors in the United Republic of Tanzania have recorded poor performance caused by reduced liquidity and bad debts. The government of Tanzania introduced a new system of directly collecting her revenue to Central Bank, this has resulted to the decline in the commercial banks' deposits. For instance, CRDB Plc which is the largest private bank, CRDB in the country has experienced a loss of Tshs1.9 billion in the third quarter of the year 2017. Besides, Twiga Bancorp declared a loss of Tsh18 billion in the financial year 2016/2017.

In October 2017 monthly report, the Central Bank has noted the decrease in money supply which was largely echoed in net foreign exchange holdings both at the Central and commercial banks. The President of United Republic of Tanzania "John Pombe Magufuli" ordered the Governor of BoT to stop supporting poor performing lenders. "These banks which are violating regulations, has to be taken action, even those belong to the government", said President Magufuli. They wait for the government bailouts. If they can't survive, let them die."

CONCLUSION

This study examined the strategic planning and Financial Sectors performance in Tanzania. Since it was clarified that strategic planning variables have a positive and significant effect on Financial Sectors performance. This means that if the Financial Sectors adopt the use of strategic planning, the performance level will improve. The Financial Sectors sector in Tanzania should be of concern since the performance of the sector as at now is not showing any significant indicator for the economic development of the nation. The use of strategic planning should be considered as a very useful aspect to ensure improved performance and thereby improving the GDP of the nation. The successful running of a business

could be very challenging especially considering the external challenges that business operations encounter in Tanzania but with the adoption of strategic planning and the consideration of the moderating variables adopted for this study, the Financial Sectors sector in Tanzania can be greatly improved.

According to Jain, S. (2016), Strategic planning should be viewed as the first step in a long-term process. The development of a formal system to allow for systematic, periodic review of the strategic plan and the collection of customer feedback is necessary to ensure continued effective and responsible management of the Financial Sectors' strategic planning. Such an ongoing commitment will provide Financial

Sectors with the necessary dedication to stay abreast of Financial Sectors burgeoning.

Strategic planning to an organizations disciplined the process with bottom-up participation and top-down support during business operations. Similarly, the process has to accomplish the culture, resources, and style of the company. Then, it must strengthen the confidence of management to make consistent, workable decisions.

Strategic Plan concerned as a tool to be thought of as a guide or map. Whereas it has a starting point, (today's conditions and environment situation). Similarly, it has an ending point, where the company/organization wants to be, (terms of success and growth), in the future. Subsequently, it has a middle or process. This is the hard work part of the organization. The intermediate part is approaching terms with all of the elements that may be either supportive of or in the way of getting from the start to the end. This is the process that answers the question of how is the best, most likely way to be successful as defined by the stakeholders and "allowed" by the customers and embraced by the employees. Strategic Planning discipline has advantage to facilitate effective decision making process. The better strategic option selection leads to a higher probability of attaining the goals and objectives of the owners or stakeholders. Strategic Planning Process needs further significant distinction to be restated. There should a transformation in the strategic planning, creativity, thinking, and intuition.

As well as the planning element comprises the data collection, goal setting, anticipation definition, and statement of direction. Strategic thinking comprises intuitive and creative key elements. Subsequently, it originates from the

experience or "gut feel" for the company and the industry as well.

These strategic elements that are crucial for strategic planning are namely Mission statement, vision, Objectives, Strategies and action plans. Therefore, strategic management vision and mission are very crucial elements. The vision and mission can be differentiated based on time component; vision shows what the company will become and do in the future, whereas mission determines what the company does (Johnson, Melin, & Whittington, 2017). The visions is always considered as the sources of energy for the achievement of formulated objectives (Langley, 2007). Vision, Mission, and Strategies are interconnected elements of entrepreneurial perspective; together they turn the entrepreneur's wish for a positive change into a managerial tool for the achievement of that change (Whittington, 2006). Ambitious entrepreneurs who manage growth firms form an intensive and strong vision about the value they can create (Journal, 2018). Even if in a small firm the entrepreneur usually acts as a strategic manager taking all strategic and operative decisions (Mori et al., 2014; Sandada, 2015), strategic vision forms a basis for strategy development and strategic planning. The entrepreneur needs to formulate an exact, clear vision and mission for the growth of the firm (Salum et al., 2017). Subsequently, the company's vision, growth will be reinforced by a strategic focus on market, growth, and profits. Indeed, planning of corporate or business strategy needs to be centered on the market, product and service (Altamony, Tarhini, Al-Salti, Gharaibeh, & Elyas, 2016; Salum et al., 2017). Vision and objectives are the bases of strategies and strategic planning. It is beneficial

to an entrepreneur to have a clear vision, high and growth-oriented objectives, and a belief in order to achieve strategic planning objectives (Baum & Wally, 2003). In order to be successful and to grow, the firm needs to formulate high, optimistic, growth-oriented objectives (Salum et al., 2017). Similarly, the growth objectives, other objectives (financial or non-financial, personal or non-personal) may play important roles in the actual achievement of small firm growth. Action plans on the other are the pathways or avenues that guide the entrepreneur on how to reach the set objectives. Moreover, organization reach its strategic goals through the action planning, comprises the decision on who, what and when is going to do.

RECOMMENDATIONS

It is recommended that the implementation of Strategic planning should focus on the following:-

- (1) There should be simple financial plans
- (2) There should be Planning based on forecasts
- (3) The entrepreneur begins to think strategically so that there should be externally oriented planning.
- (4) Instead of reacting to market-based changes there should be Pro-active planning of the corporate future.
- (5) As a systematic instrument of strategic management there should be Strategic planning.

Most of the decision-makers in Financial Sectors are influenced that real entrepreneurs do not plan. Instead, it is anticipated that strategic management utilize their limited time resources more effectively for sales, operational and marketing activities. Strategic planning is often perceived as transferable to the

requirements of the fast-moving and flexibly-structured for Financial Sectors and limited to large enterprises. As far as entrepreneur's perspective, there are three foremost objections which are expressed against the utilization of strategic processes in Financial Sectors (Sandada, 2015) namely: first, those strategic tools limit the flexibility and the capability for creativeness; second, it is recommended to practice the limited time resources for operational, sales and marketing or research and development activities rather than for strategy development processes; and third, that the strategic management is moreover bureaucratic. There are several steps in the strategic planning process formation. It is recommended to complete each step. The most of organizations use to by-pass steps in anticipations of reducing strategic planning time. Also, it is recommended to make a follow-up of all steps in the appropriate sequence. Regardless of some steps can be time-consuming and consensus can be extraordinary to obtain, planning group members and other stakeholders have planning process that has support to the final expected output.

Due to the findings of the study, these are the recommendations for future study.

1. The study recommends that the Financial Sectors in Tanzania should embrace the use of strategic planning as a tool and a concept to be used in achieving organizational performance.
2. The managers and owners of Financial Sectors should be conscious of the kind of attitude being exhibited at the workplace.
3. Since entrepreneurial orientation involves risk-taking, innovativeness, and pro-activeness, they should acquire this orientation in order to be able to achieve their desired objectives.

4. The Financial Sectors owner/manager needs to have a full understanding of the industry in which it operates so as to cut an edge for the organization.
5. The owner/managers should adopt the right attitude towards planning. Each Financial Sectors operator should look inwards and compliment his/her personal deficiency accurately so that the purpose of establishing the business will not be defeated.

Continual review and revision of strategic planning documents, including the mission and vision statements, is a vital component of the strategic planning process. Policy makers and planners need to continue the dialogue begun with customers and stakeholders, in order to ensure that Financial Sectors strategic planning and concerns are being addressed.

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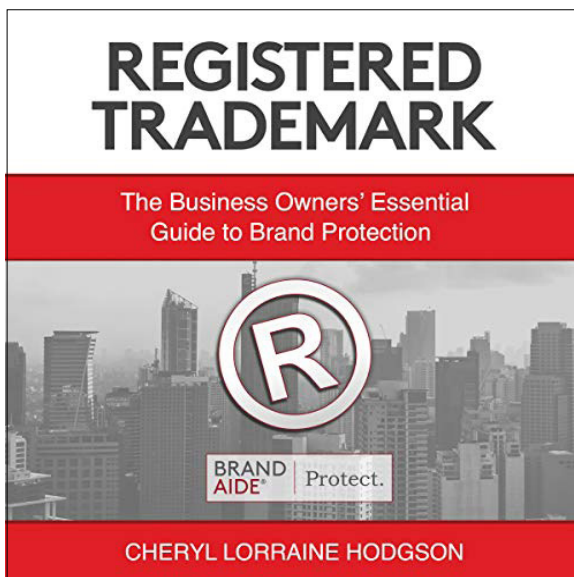
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BOOK REVIEW

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Cheryl Lorraine Hodgson, **Registered Trademark: The Business owners essential guide to Brand Protection**, Minnesota: Brandaide press ltd., 2019, pp., 128 (ISBN: 978-0-9988826-4-2) (PB)



Registered Trademark: The Business owners essential guide to Brand Protection by Ms. Cheryl Lorraine Hodgson is a simple book designed to explain the rather complicated world of Brand Trademarks. It provides accurate and authoritative information, to carry the reader through the trademark registration process in a step by step manner. It explains the importance of trademarks in protecting a brand, covers

the rather exalting affair of acquiring one and gives the tools to the reader to protect their trademarks, once registered. The book includes an introduction, nine chapters and a conclusion covering a 3 stop process for brand protection. The introduction shows the importance of intellectual property and the need for investors to attach a brand/product with its own trademark. It emphasizes on the market worth of a trademark, the role it plays in sustaining a brand and presents the problems an owner faces from not timely investing in trade colophon. The book covers the more complicated ideas in the chapters that follow.

The first chapter deals with the subject matter of a trademark. It shows the importance of a distinct mark for registration and enforcement. Through a few well-known instances, the author explains the significance of trademark registration, the need for it to be distinctive and its effect in the online market place. She covers topics like ISP takedowns, cyber-squatting, domain infringement and counterfeit goods, subjects which currently form the substance of heated debates. The chapter further deals with

the most basic elements of a brands' mark and sets the base for the ideas in chapter two. The second chapter covers the different types of trademarks and their effectiveness. It explains the elements of a trademark: descriptive forms, arbitrary wordings, fanciful structure etc., and discusses their credibility on the trademark continuum. The chapter presents a few examples of historically successful brand marks, situated very high up on the continuum, and a few ideas which faced problems in the preliminary stages of registration and enforcement. The section primarily focuses on words as trademark motifs. The third chapter, however, introduces the idea of integrative brand marks. It goes beyond words and covers the other three horsemen of brand names- logos, slogans and composition. It covers examples like Nike and adidas who have composite trademarks where their brand idea is expressed without even mentioning the company's names. The fourth chapter talks of personal branding. The chapter explains how to successfully protect the brand value of a name against cyber abusers. It shows how registered trademarks are effective in line training and the ways in which a federal mark protects the reputation of a brand and its potential for future development. The fifth chapter introduces the second step of Hodgson's three step process: execution. This chapter explains the trademark application process. It introduces the three doorways for trademark registration, with the difference dependent on the kind of use: actual, intended or registration based. It further covers the examination process to establish the actual effectiveness of a trademark. The chapter essentially clarifies the formulative aspects behind registering a trademark and the integrities involved in the

process. The 6th chapter focuses on rejection, its causes and the most effective ways to avoid it. It talks of confusion in applications due to pending trademarks, failures in proving use, special internet needs and improper descriptive terminologies. The chapter covers a wide array of reasons for application rejections and informs the readers about what not to do when filing for one. It advises trademark applicants to do a proper market research, establish proof of use for their marks, create a budget for maintenance, and then pursue registration. It establishes the final requirements for the successful registration of a trademark. The 7th chapter talks of the brand owners' duties once their trademarks are successfully registered. It informs them of their individual right over the mark, and specifies the duties to be performed to retain this right. The chapter classifies the reasons and ways of policing and maintaining registrations. It instructs the owners to monitor the market, inform affiliates of the standards for proper use, block illegal domain hijacking and surveil against generic and uneducated third-party exploitation. The chapter apprises owners of their right to maintain control over their brand mark's and the ways available to enforce this right. The next chapter covers most of the generic scams involved in the registration process, bullies and rip-offs who try to cheat owners and the many trademark scamsters trying to make a quick buck. It warns owners of the various phony services, billing scams and trading bullies who make money by exploiting unsuspecting owners. The chapter provides ways of cross checking the application filing services and covers redressals mechanisms available for aggrieved owners. The last chapter terminalizes what to look for when hiring an expert or legal representative for your brand. It shows where

to find competent professionals, experienced in the trademark field, and the ways of screening prospective attorneys to find the best one for your brand. The chapter aims at providing all the keys to owner so that he can conclusively make the best decision for his trade.

The conclusion again covers the importance of trademarks and the benefits an owner gets from its registration. It shows how brand protection is a process not a destination. The last section summarizes the key elements of all the chapters while pivoting on the need for an owner to register and protect his brand. It primarily gives an overview of the whole guide and sufficiently ends after abridging the fundamental points of the book.

The book is a substantial piece of work which adequately covers the basics of trademarks. It

expresses the importance of brand marks in the market and explains the steps involved in acquiring one. The author sufficiently discusses the different issues which form a part of the whole affair. She covers the generic aspects of registration enforcement to the more substantial principles required for counsel employment, which generally miss the eye. The book covers both the key aspects as well as the intricacies of trademark registrations. The opus is a must read for aspiring brand owners who wish to expand their trade and legal professionals trying to know more about the patent industry. The book offers multiple new points and covers trademark features in detail; it is more than a notable contribution in the sphere of Trademark management.