Editor's Desk

CSR is a holistic business strategy which addresses social and environmental impact of business. The Companies Act 2013 has made corporate social responsibility (CSR) in India mandatory for private limited and public limited companies having a turnover of 1000 crore with a net worth of Rs. 500 crore or net profit of 5 crore. Such companies are required to use 2% of their net profits of preceding 3 financial years for activities especially catering to CSR as defined in Schedule VII of the 2013 Act. Why was such a law incorporated? India faces many challenges of human beings and environment. Due to growth and expansion the poor are suffering with hunger, poverty and lack of education. There has been a degradation of the environment. Good governance is desired in corporate organizations. The Act addresses some of these activities such as poverty eradication, gender equality, education, health and environmental sustainability. CSR is beyond philanthropic activities to include stakeholders such as communities, customers, industry organizations, employees, government entities, shareholders and partners, into holistic alignment with business strategies and corporate values. It covers governance, disclosure, stakeholders and sustainability So where is India now? Are the companies seriously adhering to the policy norms prescribed by the Act?

The companies which have adhered to CSR activities since 2014 can be categorized as pace setters or high spenders for CSR activities starting out or those which have just begun to spend on such activities and are testing the waters. Smart utilisers do not spend much but they are able to get more mileage from public about their CSR works and lastly Low efficiency scores in CSR are those which spend more but are not known publicly for CSR activities. The pace setters are worthy of their work because they believe in giving back to the society some part of their return or profits and also engage in philanthropic activities. Some of these companies are Mahindra & Mahindra Ltd., Tata Power Company Ltd., Larsen & Toubro Ltd. and Infosys Ltd. These companies should act as a role model. In India, there is evidence to believe that though there is a break through, yet companies are spending far below 2% of their net profits. Most companies are taking advantage of CSR activities only to get some benefits from government and local bodies. We are still in a distant dream to achieve the objective of CSR to come close to the top companies like Microsoft, Google, Apple, BMW. We hope that Indian companies even if they do not come under the purview of the Act should still engage in CSR activities. There should be companies with transparency, genuineness and communicative. Such companies will definitely make a mark and stand out from the crowd and leave an impact on the society. Thus they will uplift the Indian society and community and raise standards of living and bring ethics into corporate life.

(Preeti Singh)

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USING FAILURE MODES AND EFFECTS ANALYSIS (FMEA) TO RISK ASSESSMENT PIPELINES OF PETROLEUM PRODUCTS

Meysam Hemati★   Mohsen Nenmatpour★ ★   Jafar Amini★ ★ ★   Mohammad Saborifard ★ ★ ★ ★

The risk assessment methods and different methodologies provided that each of them had complex or simplistic approach to the issues. The practical steps to implement a practical and comprehensive approach to risk assessment and analysis of potential risks derived from FMEA method is presented in a way that is easily the implementation of. This study aimed to determine failure modes and effects (FMEA) was performed in oil pipelines. This study was cross-sectional and functional expertise of highly qualified individuals. The failure modes were analyzed pipelines. Team scores related to severity (S), probability (L), detection (D) failure modes according to certain tables, were identified. Risk Priority Number (RPN) RPN = S × O × D was calculated as the product. The results showed that the RPN of line rupture caused by Sabotage (wars, bombing, terrorist attacks)is equal to 560 ,vapors and gases from welding due to the lack of proper masks with RPN=60are the highest and lowest risk of their allocation. For the purposes of continuous improvement, in coordination with senior management and statistical analysis, RPNs up to 350 was determined as an acceptance criterion. Finally, the team members to reduce risk, concluded that control measures, such as regular inspections of the pipeline to reduce the damage caused by an external force to the pipe and also redirect pipeline routes that is possible to reduce the risk of landslides tube rupture is the high priority.

Keywords: Petroleum, Risk Priority Number (RPN), HSE (Health, Safety and Environment) and FMEA (Failure Modes and Effects Analysis)

The identification of risks is the most significant part of every HSE program, i.e., HSE Management Plan, and is considered as the motor of the system. Firstly, we must identify the risks to be able to propose any approach to face or preclude the risk and to design our HSE programs. The more precise is the identification of risk, the better the performance our system will have. A great number of workers killed or injured on the job in USA on every day, so, these can be avoided through considering the hazardous working conditions, providing workers with the proper facilities and training. According to the International Labor Office ILO some 5000 people die per day of work-related accidents and diseases each year, and accidents and work-related illnesses cost some 4 per cent of annual GDP, equal to 1, 2/51, 3/53 USD that directly or indirectly spent for occupational accidents and diseases around the world. This figure is 20 times more than international aids for development in developing countries.

The work-related accidents are considered as a national loss. So, preventing of occupational disasters is of high importance from social and economic point of view. The HSE experts believe that more than %80 of the workplace driving-accidents can be avoided using some simple and low cost methods and prevention programs. Although the unsafe acts or unsafe and insanitary conditions said to be of the conventional causes of the vast majority of occupational injuries and accidents, but endeavors towards the improvement of security and hygiene in workplaces proved them to be the secondary factors, so that further studies revealed the causes of such accidents to be rooted in a management system, i.e., in lacking of a management system of HSE in the organization.

Risk assessment of some components of oil industry, specially its pipe lines, considering the complexity of this industry, is a valuable step to manage the HSE system effectively. In general, the pipe lines are used for oil transmission among different units, reservoirs and conveying to the costumers, besides their advantages they are threatened by many potential risks (for e.g., accidental leakage of petroleum from pipelines). So, the identification and management of these events can better help to control

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and prevent them to occur. However, most industries recently regulated by legal units required to promote the security in the pipelines. In addition, these legal agencies emphasize on risk assessments of quantitative analysis type.

Risk assessment is applied in the industry as a tool to manage the risks by identifying the risks and their potential consequences on people, materials, equipment and environment, so that various methods have been proposed over past years to this end. Identification of risk and its assessment carried out in many ways, of which we can namely point to FMEA, JSA and HAZOP, etc. Using FMEA technique to assess the risk is considered as a systematic method to identify the flaws of system in advance of their occurring. Concentrating to prevention of defections and promoting the satisfaction of relevant people, this method has been widely used in outstanding industries as it allows the users to prioritize the monitoring measures. So, the importance of its application in modern management systems which seek to be improved constantly is evident.

I. Review of Literature

Wide range of studies has been carried out regarding the issue which confirm the applied method and its results. For example, Mr. Sinha and et al used FMEA as a tool to investigate critical risks in aero plane manufacturing supply chain, and Komar et al used this method for risk assessment in medicine industry. Moreover, in a study carried out by Joo Yang, it was an emphasis on the rate of oil materials spill of pipelines and the importance of its analysis. The rate of the defection of pipelines of oil materials was based on the previous experiments and events in the most past researches. In most of past researches, the rate of defect of pipelines of oil materials was assessed based on the earlier experiments and accidents. So that the failure rate status relies mostly on various factors including design, manufacturing condition, maintenance and protection plan and environmental conditions. Some of these flaws like mechanical contact, earthquake or abrupt increasing in pipelines` pressure, are independent of time, while the failures like erosion and fatigue are time-dependent. In another study called "Identification of analysis of occupational hazards in one of the milk manufacturing company" by Zahra Rezvani showed that among other potential risks in this company, the noise of equipment of production line including Tetra Pack and Basket Washer machines had maximum relative frequency (%64), and then the risks like Inhalation of acid and soda fumes (%32) and burn from acid and soda %32) had maximum relative frequency. In this study the numbers of jobs were 28 and

the number of identified risks amounted to 380. In a study by Ahmad Asadi revealed that the risk of falls from height by relative frequency of %12 and then the risk of slide by relative frequency 0f %10 had led to an accident in the company. The total number of identified risks was 4250.A research carried out by Raziyeh Soltani in Shiraz Oil Plant found that considering the Risk Priority Number (RPN) which is in high level in some activities like movement and carrying the objects we can control or omit the risk using effective monitoring measure such as safety courses, Internal audit, maintenance and protection, which denote effectiveness of FMEA. The results of research by Alireza Mansouri et al on risk assessment of gas pipeline using FMEA revealed that erosion and exhaustion of pipeline are of high importance compared to fraction. The choosing the pipeline of proper material, applying modern equipment for different monitoring operation, holding specialized training courses and proper injection of Corrosion inhibitors must be of high priority to reduce unacceptable risks.

In all over the world oil and gas transferring companies such as Iranian oil pipeline and telecommunication company are totally observed of implement the latest safety issues of method and innovative equipment's to reduce and manage risks. Because of their complex and sensitive essence. We knew that according to premise of this articles the companies are exposed to be damaged with any type of adventure then we decided to use FMEA method to evaluate the risks in our company and propose the essential activities managing and reducing them. The present study is of provisional and applied one which carried out by assessment team in one of the exploitation company of the country. The choosing of the team members has been carried out after gaining adequate knowledge on the process to be studied, based on experience and knowledge of individuals regarding different specialties. Having studied the documents and interviewed with individuals, experts, the assessment team selected the process units of the company and identified the failure modes and their consequences and causes. In this study, the existed risks were evaluated and analyzed using FMEA method.

II. Research Design & Methods

The decision making is done using RPN scoring method. Using RPN scoring method is based on the fact that the numbers with higher risk priority have priority to be analyzed and assign recourses for improvement and the management of the company has to plan and spend on those risk conditions which have high RPNs. RPN for each issue is calculated by multiplying Severity (S), Occurrence (O) and Detection factors. In this research we use the risk

priority number (RPN) methodology to determine the acceptable level of risk.

RPN is a factor to separate the acceptable and unacceptable risks in the system studied. The level of this factor is variable based on the laws and regulations of every organization and its ability to provide the required costs of the project, and will be determined according to the manager of the organization.

1.To identify the risk severity criteria - The severity is the "potential risk effect" on individuals. The severity of risk is only considered for its effect, and any decreasing in the severity is only possible through applying changes in the process and the way activities proceeded. For this risk severity assessment there are some quantitative factors which stated according to 10-point scale (1–10). Please refer Table 1.

2.Occurrence Probability - The occurrence probability specifies the frequency with which one cause or potential risk mechanism may occur. We can be optimistic to reduce the number of events only through eliminating or diminishing the causes or mechanism of every risk. The occurrence probability is measured based on a scale varying between1 to 10. Moreover, it is of high importance to verify past records and documents. It will also be helpful to study the controlling process, standards, requirements and the labor laws, as well as their application to attain this number. Please refer Table 2.

3. Risk detection probability rates - The detection probability is a kind of evaluating the ability in order to identify a cause or risk occurrence mechanism for the existing risk. In other word, the ability detection probability is to detect a risk prior to its occurrence. It is supportive to review the controlling process, standards, requirements and the labor laws, as well as their application to obtain this number. Please refer Table 3.

III. Results & Analysis

The results of process evaluation of failure modes and its effects by evaluation team and based on FMEA header are as follows. Please refer Table 4.

In general, failure modes divided into 6 groups including Cracking, Tearing, Inhalation of welding fumes (gases and vapors), Fire and explosion of oil materials, falling of suspended load and Canal wall collapse. The potential factors for occurrence of each of them examined. The RPNs regarding pipeline cracking caused by internal corrosion and friction due to moving fluid, increased pressure inside the pipe, inappropriate exploitation (human errors) were

120, 200 and 240, respectively.

On the other hand, RPNs in the pipeline tearing mode due to external force application from equipment, machinery, collision with tools such as an excavator, Sabotage (wars, bombing, terrorist attacks) as well as landslide were 420, 560 and 350, respectively. For welding operation, welding fumes (gases and vapors) from pipeline welding as well as explosion and fire of oil material the RPNs due to not using welding mask and inappropriate environmental clean-up prior to stat the work were 60 and 80 respectively. The mode of falling of suspended load had RPN of 120 due to unspecified authorized amount of load. And finally, the mode of canal wall collapse due to inappropriate excavation had RPN of 120.

IV. Conclusion

The results of this study indicate that rupture is more important Han cracking, fumes(gases and vapors) from welding, explosion and fire, and pour oil drilled from wells of pipelines. The program regularly visits a day, maneuver straining emergency response, and redirect the pipelines in areas where the possibility of landslides abound, the institution should conduced programs to reduce the risks to be acceptable(RPN by more than 350).The results show that the item in proposed controlling measures column in the table 4 are the activities which can compensate or fill the gap between operationally measured RPN and expected or advised quantity of RPN. In this article we show that there are any kinds of activities which can reduce the risks of negative environmental and economical effects such as routine review of pipeline routes, shifting pipeline routes crossing an active landslides, regular daily examination of the pipeline route and practice measure for emergency response. With an overview of the findings of this study, it could be inferred that a failure to resolve the possible management measures will be most effective.

Future research suggestion - the suggestions related to each component in the forms of analysis of failure factors and its effects has been presented, however, the following solutions can be supportive to decrease the risk to the minimum level.

1. We can use the occupational safety analysis to increase work efficiency that can be considered as a secure and helpful tool for managers and also can decrease risk occurrence and further help in production and efficacy.
2. To provide and formulate a comprehensive plan to timely repair and appropriate maintenance in order to prevent failure modes to occur.

3. Forming Workplace Safety Committee and studying the executive defects and providing required case training
4. Providing comprehensive guidelines to regularly and periodically examine the machineries and to repair pipeline in order to troubleshoot and to identify potential risk modes.
5. Implementing the project consistent with standards
6. to design and apply a mechanized risk reporting system

Research limitation

Generally, any research faces with limitations which will have effect on precision, results and outcomes of research. So, this research has also been faced with some impediments some of which are as follows:

1. The novelty of the subject and limited similar studies
2. Inaccessibility of statistics and accident records
3. Inadequacy in communication and near miss reporting system in the organization

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Table 1: Severity Criteria (S)

TaNumber	Descriptive Statement	Severity
10	Death or equipment damages costing more than $500 thousands, Total failure of the process and production interruptions lasting 7 days or more	Disastrous
9	Grievous bodily harm (Limb Loss, Spinal cord injury, Gas poisoning with a short-term exposure occurring at high concentration, equipment damages costing between $500-300 thousands and Production interruptions lasting between 2-7 days	Dangerous
8	Grievous bodily harm (severe burns-second and third degree, open fracture, Gas poisoning with 8 hours exposure occurring at high concentration), equipment damages costing between $200-300 thousands and Production interruptions lasting between 1-2 days	Very Severe
7	Grievous bodily harm (partial thickness burns-first and second degree, partial fracture, Joint dislocations, rupture and partial gas poisoning with 8 hours exposure occurring at low concentration), equipment damages costing between $100-200 thousands and production interruptions lasting less than 1 day	Severe
6	Partial bodily harm (major trauma, severe contusion and food poisoning), equipment damages costing between $100-300 thousands and production interruptions lasting more than 4 hours on shift work	Mean
5	Partial bodily harm (partial trauma, contusion and food poisoning), equipment damages costing between $3-30 thousands and production interruptions lasting between 2-4 hours on shift work	Low
4	Partial bodily harm (hand scratches, eczema, urticarial and swelling), equipment damages costing between $300-3000 thousands and production interruptions lasting between 1-2 hours on shift work	Very Low
3	A trivial bodily harm, equipment damages costing between $30-300 thousands and work interruptions lasting between 30-60 Min. on shift work	Partial
2	In this stage the damages incurred by workforce and equipment is trivial and can be overlooked and the work interruption lasts less than 30 Min on work shift	Trivial
1	There is not any kind of bodily or equipment damages	Without Risk

Table 2: Occurrence probability criteria (O)

Number	Descriptive Statement	Probability
10	Occurrence probability in frequency of 1 time within 2 days or less and failure mode (state) which occur frequently in the system	Frequent
9	Occurrence probability in frequency of 1 time within 3 to 7 days and failure mode (state) which occur frequently in the system	Very much
8	Occurrence probability in frequency of 1 time within 8 to 19 days and failure mode (state) which occur more likely in the system life time	Much
7	Occurrence probability in frequency of 1 time within 20 to 79 days and failure mode (state) which occurs with high probability in the system life time	Mean to high
6	Occurrence probability in frequency of 1 time within 80 to 399 days and failure mode (state) which occur with mean probability in the system life time	Mean
5	Occurrence probability in frequency of 1 time within 400 to 1999 days and failure mode (state) which occur Occasionally in the system life time	Occasionally
4	Occurrence probability in frequency of 1 time within 2000 to 14999 days and failure mode (state) occur less likely	Less
3	Occurrence probability in frequency of 1 time within 15000 to 150000 days and failure mode (state) occur too high in the system life time that can be condoned	Too less
2	The risk occurrence probability in this firm has not yet reported	Unlikely
1	The risk occurrence probability in similar industries has not yet reported	Unexpected

Table 3: Detection Coefficient Criteria (D)

Number	Descriptive Statement	Probability
10	The failure mode is not detectable and traceable using existing controls and guidelines	Impossible
9	The failure mode is less likely to be detectable and traceable using existing controls and guidelines	Very Partial
8	The failure mode is less likely to be detectable and traceable using existing controls and guidelines	Partial
7	The failure mode is very less likely to be detectable and traceable using existing controls and guidelines	Very low
6	The failure mode is less likely to be detectable and traceable using existing controls and guidelines	low
5	The failure mode is detectable and traceable in mean level using existing controls and guidelines	mean
4	The failure mode is detectable and traceable in mean to high level using existing controls and guidelines	Mean to high
3	The failure mode is detectable and traceable in high level using existing controls and guidelines	High
2	The failure mode is detectable and traceable in a very high level using existing controls and guidelines	Very high
1	The failure mode is identified in high confident using existing controls and guidelines and no new guidelines and methods will be required	High confident

Table 4: The results of risk assessment by FMEA

Process/Operation on Component	Failure Modes	Failure Effects	Failure Modes	Potential Causes of Failure	Existing process/Operation Controls	S	O	D	RPN	Proposed Controlling Measures
Oil Products Transfer By Pipelines	Pipeline Cracking	Halting the transferring of oil products to relevant centers, Damages to pipeline, bodily harm to exposure individuals, oil products leakage, fire and explosion, gas poisoning, environmental pollution		Pipeline internal corrosion and friction due to moving fluid	Periodic and routine examination of pipelines, corrosion examination application, routine injections to slow down corrosion, line controlling through corrosion protection terminals	10	4	3	120	Proper material selection for pipeline, application of modern equipment to perform different examinations such as Ultrasonic Thickness Gauge as well as execution of smart PIG
Oil Products Transfer By Pipelines	Pipeline Cracking	Halting the transferring of oil products to relevant centers, Damages to pipeline, bodily harm to exposure individuals, oil products leakage, fire and explosion, gas poisoning, environmental pollution		increased pressure inside the pipe	Using appropriate pipeline consistent with pipeline operational pressure, installing PSVs, routine examinations of pipelines, fire extinguisher	10	4	5	200	Applying computerized real-time monitoring in the CGSs across the pipelines
Oil Products Transfer By Pipelines	Pipeline Cracking	Halting the transferring of oil products to relevant centers, Damages to pipeline, bodily harm to exposure individuals, oil products leakage, fire and explosion, gas poisoning, environmental pollution		Inappropriate exploitation (human errors)	Considering the guidelines based on design, hiring experienced people, on the job trainings	10	4	6	240	Specialized trainings for exploitation operations and applying computerized real-time monitoring in the CGSs across the pipelines
Oil Products Transfer By Pipelines	Pipeline Tearing	Halting the transferring of oil products to relevant centers, Damages to pipeline, bodily harm to exposure individuals, oil products leakage, fire and explosion, gas poisoning, environmental pollution		Applying external force caused by equipment, machinery, collision with tools such as an excavator	Permit to work, pipeline risk management training during activities	10	7	6	420	Routine review of pipeline route
Oil Products Transfer By Pipelines	Pipeline Tearing	Halting the transferring of oil products to relevant centers, Damages to pipeline, bodily harm to exposure individuals, oil products leakage, fire and explosion, gas poisoning, environmental pollution		Landslide	practice maneuver for emergency response	10	7	5	350	Shifting pipeline route crossing an active landslide
Oil Products Transfer By Pipelines	Pipeline Tearing	Halting the transferring of oil products to relevant centers, Damages to pipeline, bodily harm to exposure individuals, oil products leakage, fire and explosion, gas poisoning, environmental pollution		Sabotage including wars, bombing, terrorist attacks, etc.,	Observing the engineering and management principles of Passive Defense	10	7	8	560	Regular daily examinations of the pipeline route and practice maneuver for emergency response
Pipeline welding	fire and explosion	Damages to pipeline, bodily harm to exposure individuals, oil products leakage, gas poisoning, environmental pollution		Applying inappropriate clean-up procedures to remove oil pollutions from the environment prior to start to work	Applying gas meter, environmental clean-up, installing manual extinguisher on location and using hot work permit	10	4	2	80	Specialized training for immunization and environmental clearing of Ignitable substance
Pipeline welding	Inhalation of welding fumes	Poisoning		Inappropriate using of masks	Using of special masks	5	6	2	60	Holding specialized Occupational Health and Safety Coursesregarding poisoning, using of masks and Personal protective equipment
Moving objects with moving crane	Falling of suspended load	Damages to people and equipment		Unspecified authorized amount of load	Using personal protective equipment	10	4	3	120	Checking authorized amount of load and hiring experienced riggers
Digging canal to repair damaged pipeline	Canal wall collapse	Damages to people and equipment		Inappropriate excavation	Excavation permit according to guidelines and using personal protective equipment inside the canal	10	4	3	120	Hiring skilled workers to excavate, full observance of relevant guidelines as well as preventing irrelevant and additional people to gather around and inside the canal

SOCIAL NETWORK TIES AS THE MEDIATORS OF WORKPLACE DIVERSITY AND WELLBEING OF EMPLOYEES

Namita Rajput★   Amogh Talan ★ ★

This paper analyzes the mediating impact social network (instrumental and expressive) ties on the relation between workplace diversity and wellbeing of employees. A sample of 113 was collected from private sector organizations belonging to ICT and finance industries located in Delhi-NCR region of India. Diversity was found to be positively associated with wellbeing. Using Partial Least Square technique of Structural Equation Modeling analyzed through SmartPLS 2.0.M3, it found that instrumental ties significantly mediated the relation between diversity and wellbeing, while expressive ties were found not to be associated with diversity. Implications for the policymakers have been suggested to take into consideration the social network ties in order to effectively implement the policies aimed at promoting the wellbeing of the employees while maintaining a healthy diversity in the organizations.

Keywords: Diversity, Wellbeing, Social Network Ties, Instrumental Ties, Expressive Ties

According to Universal Declaration on cultural diversity cultural diversity is not only important for economic growth but also for spiritual intellectual moral and emotional well-being (UNESCO 2001). When we talk about diversity we usually mean creating a workgroup where individuals would be distinguished on the basis of gender and ethnicity race social economic status education etc. (Kreitz, 2008).

Several definitions of diversity have been proposed such as "The mixture of attributes within a workforce that in significant ways affect how people think, feel, and behave at work, and their acceptance, work performance, satisfaction, or progress in the organization" (Thomas and Bendick, 2013). According to another definition of diversity, it is "the varied perspectives and approaches to work members of different identity groups bring" (Thomas and Ely, 1996).

Several arguments have been put forward regarding the benefits and drawbacks of diversity. However the arguments in favor of the benefits of diversity have clearly an upper hand. It has been established that diversity at workplace not only results in higher productivity, innovativeness, higher wages but also in culturally diverse recreation facilities such as restaurants, shops etc (Mazzolari and Neumark 2012; Ottaviano and Peri 2006). According to Page (2007) diversity in firms lead to integration of skills and abilities of individuals from different backgrounds resulting in higher problem solving abilities and hence higher productivity.

However, a set of researchers have pointed out certain potential drawbacks of diversity. According to them a high diversity at workplace may result in cultural conflicts, adversely affecting social capital, and higher misunderstandings due to ethnic differences(Horwitz

And Horwitz 2007; Alesina and La Ferrara 2002). High diversity may also result in higher communication barriers, which may have consequences on augmenting the costs to bridge the communication gap, and may result in noncooperation between individuals from diverse backgrounds, hampering the productivity (Suedekum et al. 2014).

Haile (2013) argues that a highly diverse workplace may encourage employees to choose to work with people belonging to similar ethnic and cultural background, which, even though may be beneficial to the wellbeing of the minority, but may impact the job satisfaction of the majority.

The benefits and potential drawbacks of diversity would be at force simultaneously at a diverse workplace at any given point of time. It is a matter of one force overcoming another, which has resulted in such a diverse conclusions regarding the benefits and drawbacks of diversity. Because of this, it becomes imperative to study the effects of diversity in Indian scenario, where there is a lack of published empirical studies analyzing the same, which is surprising, considering India is a highly diverse country, where workplaces accommodate people from different backgrounds, culture, religion and ethnicity.

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Our study focuses on the effects of diversity on the well-being on working individuals in India. Several studies have tested the relation between diversity and well-being, however no study so far in our knowledge has studied empirically the exact mechanism on how diversity affects well-being. In our study we propose that diversity has an implication on the social ties among coworkers, which may have an implication on their wellbeing.

I. Review of Literature

Concept of wellbeing

Subjective well-being has been found to have two dimensions namely: evaluative and hedonic wellbeing (Kahneman and Deaton 2010). While evaluative wellbeing focuses on the long term opportunities and objectives of life of an individual, taking into consideration the holistic dimensions of life and their satisfaction, hedonic well-being is focused around the focuses on shorter and more dynamic experiences such as positive and negative state of emotions and feelings experienced in certain environments. The studies in the literature analyzing the relation between diversity and wellbeing focus mainly on evaluative wellbeing. In fact we could not find any published work considering the impact of diversity on hedonic wellbeing. Considering hedonic instead of evaluative wellbeing makes sense because it measures more accurately how spending a significant time in a diverse environment and constantly interacting with people from a different background affects the state of emotions during that time at the workplace, hence more accurately analyzing the relation between the two.

In a comprehensive study (Do Something Different program) conducted by Fletcher et al (2011), authors showed a strong relationship between being diverse/inclusive and wellbeing. More specifically, individuals rated high in inclusiveness were expected to be rated several times higher on wellbeing parameters in contrast to those rated lesser in inclusiveness

Strong religious beliefs or feelings have been known to increase an individual's subjective well-being Hayo (2007). According to Gundlach and Opfinger (2013) however, there is a bimodal relationship between strong religious beliefs and subjective wellbeing. Current literature suggests that high diversity in terms of religion may affect the strength of religious beliefs either in positive or negative manner, and hence may affect subjective wellbeing in either positive or negative manner. The same argument may in a parallel sense be applied to linguistic, cultural and ethnic diversity.

According to Mookerjee and Beron (2005) found that fractionalization on the basis of religion leads to lesser levels of happiness. Similarly, Hinks (2012) conducted a study in South Africa and found that even though fractionalization on the basis of religion and inequalities of income negatively impacts wellbeing, fractionalization on the basis of ethnicity and language did not affect wellbeing.

Several theories of social psychology such as self-categorization and social identity, suggest that there exist an inverse relation between the wellbeing of people belonging to religious, linguistic, cultural or ethnic diversity and the affirmative action taken in order to secure their interests in the organization because such affirmative action makes the element of their diversity such as religion, ethnicity etc more conspicuous (Kanter, 1977). Also, in the long run such practices may lead to favoritism and stereotyping which may work against the wellbeing of the minority class of employees. Even though such literature suggests affirmative action having an adverse effect on the long term wellbeing of the minority group members, most of the research focuses on gender diversity and only a few on cultural, ethnic or religious diversity Li (1994).

Knouse and Dansby (1999) found an inverted U-shaped connection between diversity of minorities and productivity. This study was done on a highly diversified group of military personnel in which it was found that productivity and wellbeing of the group was at peak with up to 30% composition of minorities in the group, but declined when the percentage increased. In contrast to this, Jackson et al. (1995) found that as the proportion of minorities increased on the workplace, the anxiety levels (a sub-dimension of hedonic wellbeing) decreased.

On the basis of this discussion it is obvious that the relationship between diversity and wellbeing is not consistent in different scenarios. Also the lack of any empirical study testing this relationship in Indian scenario makes it difficult to assume a definite relation. Hence, we endeavor to test the following hypothesis:

H1: Perceived diversity has a significant relationship between diversity and well-being on workplace.

Diversity, Social network ties and wellbeing

Social network theory has its importance in studies of organizational psychology as complicated social networks exist in organizations (Chae et al., 2005). According to social network theory, social network ties have been characterized by the magnitude of emotions, reciprocity and the amount of effort and time devoted in the ties

(Chae et al., 2005). Social network ties may be seen as mechanisms and the framework of relationships which may facilitate or hinder the access to certain assets, information or resources, benefiting everyone involved in the network (Putnam, 1993). In a social network, entire network works as one unit, with each individual's activities and actions being dependent and associated with others', and having implications for all the ties in the network (Chae et al., 2005).

Social network theory subdivides social network ties into expressive and instrumental ties (Manev and Stevenson, 2001). Instrumental ties are more of a formal nature, arising among workgroups which results in the exchange of knowledge, information, skills and other resources. On the other hand expressive ties are more informal in nature which helps in strengthening in social support and kinship (Manevand Stevenson, 2001).

Social identity theory has implications on the relation between network ties and wellbeing of individuals involved in such network. An individual who is well embedded in a social network, would want to maintain strong instrumental ties within the network because of mutual benefits derived from the strength of the associations and exchange of resources within the network, resulting in mutual augmentation of wellbeing its members.

Similarly, strong expressive ties characterized by friendship and social support result in reinforcement of trust among the network members, leading to mutual exchange of emotional, tangible and other resources, which clearly has an implication on their wellbeing.

Some authors argue that diversity may result in the wellbeing and productivity of minority group only if it is "high enough". This is because presence of a significant number of individuals with similar background at one place will result in then strengthening their social network by reinforcing their ties, and would result in continual social interactions and communications and leading to lesser scope for interpersonal conflicts Ibarra, (1995). In a research conducted in US, Latino and African American employees were found to be actively seeking to build social ties and friendship with other employees belonging to same ethnicity Mehra et al. (1998). Verkuyten et al (1993) conducted a study on Dutch employees, and found that employees who actively sought to spend time with other employees belonging to similar ethnicity reported significantly higher on their job satisfaction levels.

Yoder (1989) has suggested that affirmative action may result in weaker social network ties of the minority group

members, hence excluding them from the network. This in turn may result in higher stereotyping and pressure on the minority members, resulting in lower productivity.

Some other studies have suggested that a positive and linear relation exists between the proportion of diverse group on workplace and their wellbeing due to stronger networking ties with co-ethic people, integration of their knowledge and skills, leading to lesser work pressure and higher productivity.

Even though the relation between diversity and wellbeing has been studied on several occasions as discussed above, the mechanism through which diversity affects the wellbeing, in our knowledge, has not been discussed in any published empirical study.

We believe that certain mediators, such as social network ties, might play a role in explaining the relation between diversity and wellbeing.

As explained above, diversity has its own advantages at workplace including bringing unique experiences and knowledge, and fostering innovation and problem-solving abilities in teams. This indicates that a healthy diversity must strengthen instrumental ties, resulting in improved overall performance in teams.

Whether diversity strengthen expressive ties cannot be established on the basis of literature available because of contradictory results. A highly diverse environment may improve such ties due to facilitation of communication, trust and cooperation among similar people, however, diversity may also lead to misunderstandings and conflict of interests.

On this basis of this we propose:

H2: a) Instrumental ties will mediate the relationship between diversity and well-being on workplace

b) Expressive ties will mediate the relationship between diversity and well-being on workplace

II. Research Design & Methods

On the basis of the hypotheses, we tested a model in which Diversity was the independent variable, wellbeing was the dependent variable, while instrumental and expressive ties being the mediating variables. The model can be depicted in Figure 1.

Instrumentation

Four scales were utilized in this research. To measure

diversity at workplace, 4 items from a self-reported Diversity Perspective Questionnaire (DPQ) originally constructed by Podsiadlowskiet. al. (2013) was adopted with questions such as "Our organization is culturally diverse, as we take equal employment opportunities seriously" rated on a 5-point scale ranging from "do not agree" at all to "fully agree". Two items of this scale were reverse coded.

Instrumental ties was measured using two items adopted from the literature of Manev and Stevenson (2001), and Van der Vegt et al. (1998), which were measured on a 5-point scale ranging from "do not agree" to "fully agree". An example of the questions is: "My coworkers and I offer assistance with one another during office hours".

Expressive ties was measured using two items adopted from the literature of Manev and Stevenson (2001), which were measured on a 5-point scale ranging from "do not agree" to "fully agree". An example of the questions is: "I talk with coworkers about things beyond work".

Employees' well-being was measured using 20-items Job-related Affective Well-being Scale (JAWS) developed by Van Katwyk, Fox, Spector, &Kelloway, (2000), which assesses the wellbeing of employees as a measure of their emotional reactions to the job. Example of items include "My job made me feel energetic".

Sample and data collection

Data was collected using survey method from middle-to-top level employees from seven companies from finance and ICT sector located in Delhi-NCR region of India. In total 113 individuals responded to the questionnaire prepared and distributed through Google Docs. The descriptive profile of data collected is given in Table-1.

III. Results & Analysis

The relationships between the variables were assessed using structural equation modeling through partial least squares (PLS) approach. All the analyses in our study were conducted using SmartPLS 2.0.M3 (Ringle et al. 2005). According to Hulland (1999), assessment and interpreted of a PLS model is a two-step process. In the first step, reliability and validity analysis is conducted for the measurement model. In the second step, the predictability and significance of the paths between constructs in the structural model is evaluated.

Evaluation of the SEM model requires following steps:

1) Evaluation of Reflective Measurement model:

• Internal consistency (composite reliability)

• Convergent validity (average variance extracted)

• Discriminant validity

2)Evaluation of the Structural Model:

• Assessment of structural model for collinearity issues

• Assessment of the significance and relevance of the structural model relationships

• Coefficients of determination (R2)

Internal consistency (composite reliability) and indicator reliability

Cronbach (1951) came up with a measure that is loosely equivalent to splitting data in two in every possible way and computing the correlation coefficient for each split. The average of these values is equivalent to Cronbach's alpha, α, which is the most common measure of scale reliability. Please refer Table 2.

Cronbach's α is: $\alpha = \frac{N\bar{c}}{\bar{v} + (N-1)\bar{c}}$

The value of Cronbach's α of each scale showing the overall reliability of the scale was found to be greater than 0.8. According to Kline (1999), α greater than 0.8 indicates good reliability. However, in psychological studies, it has been suggested that a lower value of Cronbach's α, but greater than 0.6 is acceptable. Hence, all our measures meet the necessary requirement.

Convergent validity (average variance extracted)

Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct. Average variance extracted (AVE) is a general measure used to establish convergent validity on the construct level.

The results of AVEs for different constructs and sub-constructs used in our model are presented in Table-3.

All of our constructs have AVEs >0.5, hence entire model meets the convergent validity requirement.

Discriminant validity

Discriminant validity is the extent to which a construct is truly distinct from other constructs by empirical standards. Thus, establishing discriminant validity implies that a construct is unique and captures phenomena not represented by other constructs in the model. The Fornell-Larcker criterion (Fornell and Larcker, 1981) is the approach to

assessing discriminant validity. It compares the square root of the AVE values with the latent variable correlations. Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct. The logic of this method is based on the idea that a construct shares more variance with its associated indicators than with any other construct. Please refer Table 4.

The square roots of the reflective constructs' AVE are on the diagonal and the correlations between the constructs in the lower left triangle. Accordingly, all of our constructs meet Fornell-Larcker criterion requirements and discriminant validity is established.

Assessment of structural model for collinearity issues

High correlations are not expected among the constructs in a structural model, which would mean that more than one construct is explaining the same characteristics. To assess the level of collinearity, researchers should compute the tolerance. The tolerance represents the amount of variance of one construct not explained by another construct in the same block. A related measure of collinearity is the variance inflation factor (VIF), defined as the reciprocal of the tolerance. The term VIF is derived from the square root of the VIF being the degree to which the standard error has been increased due to the presence of collinearity. The tolerance and VIF are both provided in the regression analysis output of IBM SPSS Statistics software package. In the context of PLS-SEM, a tolerance value of 0.20 or lower and a VIF value of 5 and higher respectively indicate a potential collinearity problem (Hair, Ringle, &Sarstedt, 2011). These levels indicate that 80% of an indicator's variance is accounted for by the remaining formative indicators associated with the same construct.

We consider tolerance levels below 0.20 (VIF above 5.00) in the predictor constructs as indicative of collinearity. If collinearity is indicated by the tolerance or VIF guidelines, one should consider eliminating constructs, merging predictors into a single construct, or creating higher-order constructs to treat collinearity problems.

In our model, none of the constructs as shown in Table-5 show collinearity problem.

Assessment of the significance and relevance of the structural model relationships

After running the PLS-SEM algorithm, estimates are obtained for the structural model relationships (i.e., the path coefficients), which represent the hypothesized relationships among the constructs. The path coefficients have standardized values between -1 and +1. Estimated path coefficients close to+1 represent strong positive relationships (and vice versa for negative values) that are almost always statistically significant (i.e., different from zero in the population). The closer the estimated coefficients are to 0, the weaker the relationships. Very low values close to 0 are usually non-significant (i.e., not significantly different from zero). Whether a coefficient is significant ultimately depends on its standard error that is obtained by means of bootstrapping. The bootstrap standard error allows computing the empirical t value. When the empirical t value is larger than the critical value, we say that the coefficient is significant at a certain error probability (i.e., significance level). Commonly used critical values for two tailed tests are 1 .65 (significance level= 10%), 1.96 (significance level = 5%), and 2.57 (significance level = 1 %).

Figure 2 shows the relevance of the structural model relationships, while Fig-3 shows the significance of such relationships by displaying the respective t values.

The results of relevance and significance of the path coefficients have been presented in Table-6. Many studies do not undertake this important step in their analyses but simply focus on the significance of effects. However, the path coefficients in the structural model may be significant, but their size may be so small that they do not warrant managerial attention. An analysis of the relative importance of relationships is crucial for interpreting the results and drawing conclusions. After examining the significance of relationships, it is important to assess the relevance of significant relationships.

Accordingly, all the path coefficients have been found to be significant.

Diversity was found to be a significantly relevant factor in explaining Instrumental Ties and Well-being, but not Expressive Ties.

Well-being was significantly explained by both Instrumental Ties, Expressive Ties, however the contribution of Expressive Ties was significantly higher. Well-being was also significantly explained by Diversity.

Examining the Total Effects

In a structural model like ours, an endogenous construct may be explained by more than one construct indirectly. Hence, to get a complete understanding of the structural model, it is important to know the relevance and significance of the relationships between difference exogenous constructs and endogenous constructs, which is explained by the Total Effect of a particular exogenous construct on target endogenous construct. Total Effect is the sum of the direct effect and all indirect effects linking two constructs. PLS uses the bootstrapping methodology (Efron & Tibshirani, 1986) in order to assess the standard errors, which evaluates the significance of the structural coefficients.

Table-7 displays the Total Effects and their significance (at 5% level) for each exogenous construct on each endogenous construct.

From Table-7 it is evident that Diversity has the highest Total Effect on Well-being, followed by Instrumental Ties and Expressive Ties. As there is significantly positive relation between Diversity and Well-being, this confirms our First hypothesis (H1).

Coefficients of determination (R2) results, representing the exogenous latent variables' combined effects on the endogenous latent variable, are presented in Table-8. R2 is a measure which suggests the predictability of the constructs involved in a model. It is calculated as the squared correlation between the actual values and the predicted values of a particular endogenous construct.

Using the results of R2 displayed in table-8, we can conclude that R2 values of 'Instrumental Ties' is weak-to-moderate, while that of 'Expressive Ties' is weak. R2 values of Well-Being was found to be moderate.

Mediation analysis and Hypotheses Testing

Mediation characterizes a situation where a mediator variable, to a certain extent, absorbs the effect of an exogenous on an endogenous latent variable (Baron & Kenny, 1986). Mediation results are presented in Table-9, for those paths for which the condition of significant direct effect (without mediator) has been met.

After the preliminary conditions for mediation were met, the mediator was included in the analysis and assessment for indirect and direct effects, and their significance were performed.

Table-10 shows the values and relevance of mediating effect of Instrumental Ties and Expressive Ties to explain the relation between Diversity and Well-being.

Interpretation of mediation results (at 5% significance level):

Instrumental Ties as a mediator:

Instrumental Ties was also found to have a moderate mediation for the relation between Diversity and Well-being, which supports second part of our second hypothesis (H2b).

VAF of 0.16 or 16% means that 16% of variance in the relationship between Diversity and Well-being is explained by Instrumental Ties.

Expressive Tiesas a mediator:

Instrumental Tieswas found to have no mediation for the relation between Diversity and Well-being, which rejects the first part of our second hypothesis (H2a).

IV. Conclusion

In our research, diversity on workplace was found to be positively associated with wellbeing of the employees, which is in line with several other studies (Eg- Fletcher et al 2011; Hayo 2007). The unique aspect of our research was to partially understand the mechanism through which diversity affects wellbeing, by incorporating instrumental and expressive ties as mediators in our model. Instrumental ties were found to be significantly mediating this relation. This makes sense as diversity is known to contribute and integrate unique knowledge and skill sets brought in by people of diverse backgrounds, resulting in higher innovative capabilities in the organization. At the same time, the strength of instrumental ties depends on the interdependence of the members of the social network sharing such ties, in terms of complementing resources of individuals in such network. Higher the diversity in innovative skills and capabilities, higher would be the strength of instrumental ties, resulting in higher productivity, innovation and wellbeing.

Expressive ties on the other hand were not found to be significantly associated with the diversity. This may be partly due the fact, as raised by some researchers (Eg- Horwitz and Horwitz 2007), that higher diversity may result in interpersonal conflicts, communication gaps, noncooperation etc, adversely affecting the wellbeing. However, as the results of various studies in this respect have been contradictory, and due to the limitation of the size of our sample, number of industries taken and the geographical limitation of the sampling, further research is needed to establish a more obvious relation between these variables.

Our research has unique implications for policy formulators in that while considering a strategy to promote the wellbeing of employees, keeping in mind a healthy diversity at the workplace, the policy makers should also

consider strategies to strengthen social network ties among the members of the organization, in order to facilitate the implementation of such policies. In order to strengthen such ties, formal systems may be implemented to facilitate the exchange of unique skill set and resources which individuals in the organization may possess, with other members of the organization. Training and development sessions may also be organized suggesting the course of action to build the communication gap, and removing any potential conflicts and apprehensions among the members of minority and majority groups.

It would be interesting to find the differences in the relation between such variables separately for minority and majority groups, which would further support implementation of focused strategies aimed at promoting wellbeing of employees. Another limitation of our study was that we tested the relation proposed using linear regression. As suggested by some researchers (Knouse and Dansby 1999), there may exist a non-linear pattern or a U shaped pattern of relationship between diversity and wellbeing, where wellbeing may be promoted by diversity only up to a certain level. Finally, the composition of diversity differs from public and private sector in India, due to the compulsory affirmative action required in public sector but not in private sector. Hence a comparison of the proposed relation between public and private sector organizations may have greater implication for policy formulation.

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Table 1: Demographic profile

Demographic Characteristic		No. of responses	Percentage
Gender	Male	75	66.37
	Female	38	33.63
Age	Upto 30 years	20	17.7
	30-40 years	67	59.3
	Over 40 years	26	23
Experience	0-5 years	22	19.47
	5-10 years	60	23.1
	Over 10 years	31	27.43
Education	Undergraduate	46	40.71
	Post-graduate	67	59.29
Industry	ICT	40	35.4
	Financial	73	64.6

Table 2: Results of the Cronbach's α calculated for each scale

Variables	Cronbach's α
Diversity	0.8429
Expressive Ties	0.6555
Instrumental Ties	0.8583
Well-being	0.8062

Table 3: Results of AVEs for different constructs and sub-constructs

Variables	AVE
Diversity	0.6777
Expressive Ties	0.7036
Instrumental Ties	0.8746
Well-being	0.6137

Table 4: Application of Fornell-Larcker criterion on our model

	Diversity	Expressive Ties	Instrumental Ties	Well-being
Diversity	0.823			
Expressive Ties	0.131	0.839		
Instrumental Ties	0.385	0.023	0.935	
Well-being	0.603	0.263	0.490	0.762

Table 5: Collinarity Assessment

Const.	VIF
Diversity	1.65
Expressive Ties	1.52
Instrumental Ties	1.43

Table 6: Significance testing results of the structural model path coefficients

	Path Coefficients	t-values	Sig. Levels
Diversity -> Expressive Ties	0.1307	1.4753	NS
Diversity -> Instrumental Ties	0.3849	4.8833	***
Diversity -> Well-being	0.4582	5.7298	***
Expressive Ties -> Well-being	0.196	2.5236	***
Instrumental Ties -> Well-being	0.3093	2.9328	***
Note: NS= not significant			
**p<0.05, ***p<0.01			

Table 7: Significance testing results of the total effects

	Path Coefficients	t-values	Sig. Levels
Diversity -> Expressive Ties	0.1307	1.4753	NS
Diversity -> Instrumental Ties	0.3849	4.8833	***
Diversity -> Well-being	0.6029	11.1302	***
Expressive Ties -> Well-being	0.196	2.5236	***
Instrumental Ties -> Well-being	0.3093	2.9328	***
Note: NS= not significant			
**p<0.05, ***p<0.01			

Table 8: Coefficients of determination: R2

Constructs	R Square
Expressive Ties	0.0171
Instrumental Ties	0.1482
Well-being	0.4793

Table 9: Significance analysis of path coefficients without mediator

		Path Coefficient	t-value	Sig.
Instrumental Ties	Diversity -> Well-being	0.5781	12.9277	***
Expressive Ties	Diversity -> Well-being	0.4798	5.4716	***

*p < .10.**p < .05. ***p<0.01

Table 10: Significance Analysis of Mediation

Path	Path coefficient to Instrumental Ties	Path coefficient of Instrumental Ties to Well-being	Indirect effect	Direct effect	Total effect	SD	t-value	Sig	VAF
Mediator: Instrumental Ties									
Diversity-> Instrumental Ties-> Well-being	0.3849	0.3093	0.119	0.6029	0.7219	0.04899	2.42905	***	0.1648
Mediator: Expressive Ties									
Diversity-> Expressive Ties -> Well-being	0.1307	0.196	0.0256	0.6029	0.6285	0.01923	1.33128	NS	-

**p < .05. ***p<0.01

Figure 1: Instrumental and expressive ties as mediators of diversity and wellbeing
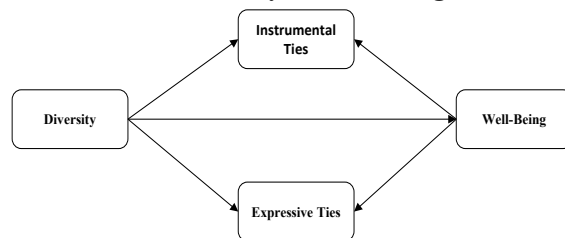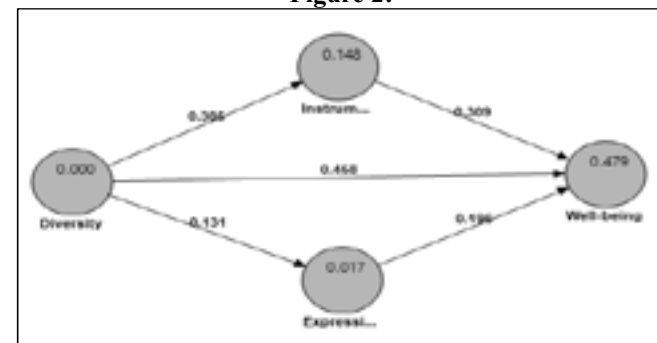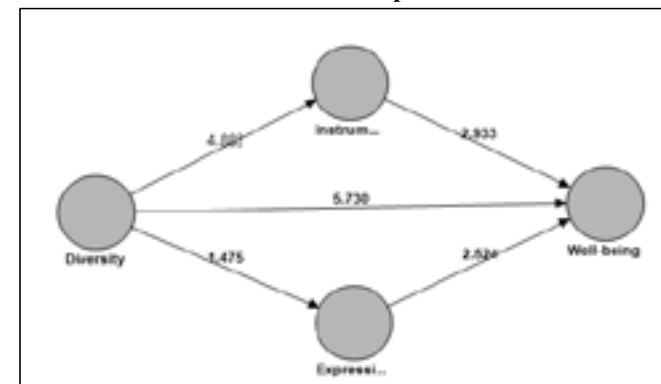

Figure 2:

Figure 3: The relevance of the structural model relationships

DO THE STOCK PRICES OF BRICS FOLLOW RANDOM WALK

Nishi Sharma★

Various anomalies occurred during last decade put many theoretical frameworks on trial and random walk is one of them. Random walk theory connotes that stock prices always follow a random walk. The theory also rejects any possibility of making consistent abnormal gains through following market games i.e. purchasing undervalued security and selling overvalued one. The theory argues that since security prices react to market innovations, it is not possible to forecast them accurately and beat the market. However, the other group of economists believe that market is predictable to some extent. This school of thought asserts that prices move in trend and through the proper analysis of past prices, one may detect the trend to forecast the future prices. In this context the present study investigates the price movement in BRIC nations through JarqueBera test, Durbin Watson statistics, Breusch-Godfrey test, Augmented Dickey Fuller test, Phillips Perron unit root test and Runs test. Durbin Watson statistics indicates positive autocorrelation of the stock prices. All other statistical test employed in the study also witnesses the presence of correlation of current stock prices with their previous price. Therefore an active investor may get an opportunity to earn abnormal gains in BRIC nations.

Keywords: Autocorrelation, Breusch-Godfrey, BRIC Nations, Durbin Watson, Random Walk, Runs Test, Unit root test.

The stock price movement has always been a center of attraction for market analysts, investors and also researchers. The fundamental analysis and technical analysis suggest the different methodology to predict future prices of the stock. But subscribing to a radically different approach random walk theory suggests that stock prices follow a random walk and its path always remain unpredictable. A random walk is a term loosely used in the finance to characterise a price series where all subsequent price changes represent random departures from the previous prices of the security (Malkiel 2003). The Stock price observed at a specific point of time has a unique distribution pattern and its past movement of stock price cannot be used to predict future movement. The theory rejects all kind of possibility to outperform the market unless one is ready to compensate through bearing additional risk. The theory suggested that it is now a wise decision to pay huge fees to market analyst for managing an active portfolio rather an investor can be in better position in passively managed well diversified portfolio selected just a blindfolded monkey throwing darts at newspaper's financial

Random walk theory in is tune with the concept of Efficient Market Hypothesis (EMH), which believes that stocks are always traded at their fair value on stock exchange because they reflect all available information. The random order of infusion of shocks into the market causes randomness in the movement of stock prices. Whenever uncertain information comes into the notice of market participants they attempt to make instantaneous adjustments to

the innovations and this lead to two implications. The first is over adjustments (or under adjustment) of actual prices and the second is creation of lagged term as an independent variable in a random order. Due to this lagged term sometimes the adjusted prices even occur before the anticipated change e.g. a news of possible mergers of corporate houses may cause upward (or downward) movement in stock prices sometimes even before the date of actual merger. Due to the randomness in the infusion of information, the repercussion to stock prices also exhibits distinct pattern. Stock prices have no serial dependencies and therefore the past history of the series cannot be used to predict the future trend in any meaningful manner. But in contrast to developed countries, developing and emerging nations are not characterised by information disbursement mechanism and this create lead-lag relation. The time lag in the disbursement of information gives an edge to informed investor and he may get an opportunity to earn abnormal gains. In such an arrangement the random walk assumption may violate. In this context, the present paper attempts to analyse the movement of stock prices in Brazil, Russia, India and China (BRIC).

I. Review of Literature

During last two decades many oscillations have taken place round the globe. The desire of earning good return at

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a cost of higher risk motivates analysts to look at the price movement. That is the reason why random walk theory has been tested by many researchers to check out possibility of earning abnormal profits by way of forecasting stock returns. The research work in this arena expose the controversial results with reference to the applicability of random walk theory in different countries. Some researchers observed that security prices do not follow random order and there is a possibility of earning abnormal returns through predicting the stock prices. The prominent studies witnessing non-random walk of stock prices include Abraham et al. (2002) analysing stock prices in three Major Gulf Countries viz., Saudi, Kuwait and Bahrain through variance ratio and runs tests. Worthington and Higgs (2003) also attained similar results through testing serial correlation coefficient, runs, unit root and multiple variance ratio of selected Latin American equity markets. The study noticed that selected markets are not weak form efficient. Similarly most of the African stock market (except Namibia) also rejected random walk (Mlambo and Biekpe 2007). Ntim et al. (2007) observed that Ghana stock market is neither efficient from the perspective of strict random walk nor in the relaxed martingale difference sequence sense. Saudi Stock Exchange also found to be inefficient in the weak form of the efficient market hypothesis (Ashikh2012).

At the flip side of the above there are some studies that noticed random walk of different stock markets like Moustafa 2004 observed random walk in United Arab Emirates stock market. Botswana stock exchange also didn't show serial correlation and found to be efficient in weal form (Akinkugbe 2005). The study of five major Middle Eastern emerging markets by Omran and Farrar (2006) reported that Israel's TA- 100 stock market shows greater support for the random walk hypotheses. Similarly Bahrain Stock Exchange (Asiri 2008) and Nigerian stock market (Okpara 2010) also noticed to be efficient in the weak form.

In context to the Asian countries Nisar and Hanif (2012) analysed four South Asian countries and found that none of the stock markets exhibit weak form of efficient market. Arora (2013) investigated S&P Nifty and deduced that Indian Stock market doesn't have weak from of market efficiency. Sharma (2013) analysed sectoral Indian indices. The study reported that Automobile, Fast Moving Consumer Goods, Information Technology, Health Care, Oil Gas & tech sector are efficient but Bankex, Consumer Durables, Capital Goods, Metals, Power, Public Sector Undertakings and Realty sector do not follow random walk. Nalini (2015) investigated some selected stocks

listed on National Stock Exchange. The results showed that the price movements of selected stocks are random in behavior and one cannot use the historical prices for predicting the future prices. The stock prices in Chittagong Stock Exchange of Bangladesh reported to show a non-random pattern (Rahman et.al. 2016).

Therefore the studies conducted so far exhibit hybrid results in international markets. Even the Indian stock market also exhibited contradictory results. Further, in-spite of the wide availability of the work on randomness, BRIC nations have not been much explored. In this reference the present study attempts to deduce a conclusion regarding BRIC randomness. The study wants to examine whether the leading stock indices of BRICS nations follow a random walk or not so that investor can plan their portfolio.

II. Research Methodology

Daily closing prices of leading stock exchanges of Brazil, Russia, India and China have been taken for a period of 10 years from December 2006-December 2016. The logarithm values of the closing prices have been computed to avoid macro-economic influence over data. The graph may be viewed as per figure 1. As shown in the graph the period of 2008-10 shows some breaks in the regular momentum. This may probably be attributed to global financial crisis. Please see Figure 1.

Usually financial time series are observed having non-normal distribution with high kurtosis and non-zero skewness. (Najand, 2002; Lee 2009; Emenike 2010 and Ezzat 2012). To examine skewness and kurtosis JarqueBera test has been employed. Carlos Jarque and Anil K Bera, to examine the null hypothesis of normal distribution, have proposed the test.The value of JB can be computed through the following formula:

$$JB = \frac{n}{6}\left(S^2 + \frac{1}{4}\ (K-3)^2\right)$$

Null hypothesis is acceptable if the skewness of data is found to be zero and its kurtosis measure become equal to 3 leading to almost zero level of JB value. Random walk theory asserts that past stock trend doesn't guide future price movement. In other words there is no lag correlation of a series with itself. We can reject the possibility of random walk if we could find suitable evidence of significant autocorrelation in the data. To examine the autocorrelation in BRIC data following methods have been employed:

Ljung-Box Test: The Ljung-Box was named after Greta M. Ljung and George E. P. Box to check if the autocorrelation

of a time series is different from zero. It examines the overall randomness on the basis of selected number of lags.

$$Q = n\ (n+2) \sum_{k=1}^{h} \frac{\rho_k{}^2}{(n-k)}$$

Here, $\rho\_k$is auto-correlation of series at lag k and h is the number of tested lags. The null hypothesis of the test is that data is independently distributed there is no auto-correlation in the series.

Durbin-Watson Test: The d statistics of Durbin –Watson was developed by James Durbin and Geoffrey Watson to check auto-correlation.

$$d = \sum_{t=2}^{T}(e_t - e_{t-1})^2\ /\ \sum_{t=1}^{T} e_t^2$$

T is the number of observations and e_t is the residual associated with the observation at time t. The value of d lies between 0 to 4. If the Durbin–Watson statistic is substantially less than 2, there is evidence of positive auto correlation. The value more than 2 signifies negative auto-correlation in the series.

Breusch Godfrey Test: This test was proposed by Trevor S. Breusch and Leslie G. Godfrey. It is based on Lagrange Multiplier principle and therefore is also known as LM test. It examines the auto-correlation in the errors in a regression model. Under this method the residuals from the regression model are regressed to check if they follow auto-regression at i lag.

$$u_t = \alpha_1 u_{t-1} + \alpha_2 u_{t-2} + \cdots \alpha_i u_{t-i} + \epsilon_t$$

Here, u_t is the residual associated with the observation at time t. The null hypothesis is $\alpha_1 = \alpha_2 = \alpha_3 = \alpha_p = 0$ i.e. there is no serial correlation of any order.

Unit Root Test: All processes with a unit root will exhibit serial correlation i.e. denotes absence of randomness. In case of non-stationary time series, autocorrelation coefficients do not fall quickly with increase in lag. In simple words if series has unit root i.e. not stationary in nature, it will reject the random walk hypothesis. At the flip side stationary series observes random walk of the return. In the present paper Augmented Dickey Fuller Test Unit Root Test have been applied to test null hypothesis that data has unit root i.e. it is not stationary in nature.

Runs Test: The test was named after Abraham Wald and Jacob Wolfowitz. It is a non-parametric test used to check the randomness of the data. This is one of the popular test

frequently used to check randomness Abeysekera (2001), Abraham et al. (2002), Wheeler et al. (2002), Okpara (2010), Nisar and Hanif (2012). The null hypothesis is that the number of runs in a sequence is a random variable whose conditional distribution given the observation of its positive and negative values is approximately normal. Here runs denote an uninterrupted sequence of one attribute either positive or negative.

$$E\ (R) = \frac{2N_1 + N_2}{N} + 1$$

Here N_1 represents the positive symbol and N_1represents the negative vsymbols. N is the total number of observations. E (R) denotes the expected number of runs. The test is based on the premise that if a series of data is random, the observed number of runs in the series should be almost equal to expected number of the runs. In case of randomness,

Probability [E (R)- 1.96 σ ≤R≤E (R)+ 1.96 σ]= 0.95 or Z Value at 95% level of confidence is within the range of-1.96 to+1.96.

In other words, the probability is 95% that the preceding interval will include R. Otherwise, the null hypothesis rejected and this may be concluded that the data is not random.

III. Results & Discussion

Table 2 depicts the descriptive statistics of the selected indices and also JarqueBera test statistics. All the statistics have been compared with corresponding critical values at 5% as well as 1% level of significance to test null hypothesis of the test. * symbol in the table represents the rejection of null hypothesis at 5% and ** represents rejection of null hypothesis at 1% level of significance. The negative values of skewness for Brazil, Russia and China reveal that returns from these indices are left skewed whereas positive value for China reveals that stock index is right skewed. Kurtosis depicts the peak and sharpness of the distribution. The same is highest for Russian stock market. The value of kurtosis for all markets is more than 3 which indicates leptokurtic distribution pattern of the stock prices

(Refer Table 1) Jarque Bera statistics indicates that none of the financial time series follow normal distribution. Normality of distribution is one of the conditions of randomness so the test statistics give us a fair chance to get ready for rejection of random walk hypothesis. Table 2 shows the autocorrelation and Ljung-Box Q statistics of return from all four major indices of BRIC nations at

different time intervals. Time lag till 30 has been reported. (Refer Table 2)

The results indicate that we cannot accept null hypothesis for any of the selected countries. Therefore, we may conclude that there is significant autocorrelation in the series and none of the series follows random walk. Table 4 represents the test statistics of Durbin Watson, Breusch-Godfrey and unit root.(Refer Table 3)

Durbin Watson statistics is too far from acceptable limits. Since it is substantially low than 2, we may draw an inference that stock prices have positive autocorrelation in the data and they don't follow random walk. The Breusch-Godfrey Test also supports the Watson statistics. All stock prices reject the null hypothesis of no serial correlation in the series i.e. prices don't support random walk hypothesis. The results of ADF and Phillips Perrron unit root test indicate the acceptance of null hypothesis of unit root in the data. Therefore we may conclude that stock prices are not stationary at level. However at first integration order they all have observed to be stationary. The non-stationarity of stock prices at level puts sufficient evidence to assume non- random movement of prices.

Table 5 demonstrates the results of runs test. The test is based on the null hypothesis that values in sample data come in random order i.e. data has random walk. Null hypothesis is acceptable only when Z statistics of the test fall within the range of -1.96 & +1.96 at 5% level of significance.

Runs test(Table 4) also rejects the null hypothesis of randomness of the data . Therefore all statistical tests provide us reasonable ground to assert that all selected market indices follow a non-random pattern. Therefore it is possible to predict future prices and earn abnormal profits.

IV. Conclusion

Random walk theory asserts that stock returns follow random walk. Stock returns have no serial dependencies and therefore the past history of the series cannot be used to predict the future trend in any meaningful manner. The present study examines the daily return from four leading indices of Brazil, Russia, India and China. The data has been analysed through Jarque-Bera, Ljung-Box test, Durbin Watson, Breusch-Godfrey Test, Augmented Dickey Fuller test, Phillips Perron unit root test and Runs test. All test results indicate the rejection of null hypothesis and submit that there is sufficient evidence to prove that stock prices in BRIC nation follow their own lagged variable. Therefore, there is a good opportunity of market participants to take advantage through stock price forecasting.

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Table 1: Descriptive Statistics

Particulars	Brazil	Russia	India	China
Mean	10.91898	7.295824	9.846179	7.933803
Median	10.92816	7.314992	9.826542	7.926888
Maximum	11.20527	7.717360	10.29829	8.714742
Minimum	10.28994	6.241484	9.011636	7.448753
Std. Dev.	0.152235	0.237381	0.272507	0.254125
Skewness	-0.634217	-1.962296	-0.455497	0.750038
Kurtosis	3.392391	7.935821	3.239184	3.168307
Jarque-Bera	157.7057**	3557.288**	79.36004**	203.8358**

Table 2: Autocorrelation and Ljung Box Q statistics

Country	Lag	1	10	20	30
Brazil	AC	0.991	0.017	0.854	0.769
	Q-Stat	2113	19794	36883	51112
	Prob	0.000	0.000	0.000	0.000
Russia	AC	0.994	0.953	0.905	-0.846
	Q-Stat	2125.5	20371	38972	55597
	Prob	0.000	0.000	0.000	0.000
India	AC	0.998	0.976	0.950	0.922
	Q-Stat	2139.8	20982	41016	60050
	Prob	0.000	0.000	0.000	0.000
China	AC	0.997	0.969	0.933	0.894
	Q-Stat	2137.3	20830	40373	58446
	Prob	0.000	0.000	0.000	0.000

Table 3: Test Statistics

Test	Brazil	Russia	India	China
Durbin Watson	0.016	0.009	0.003	1.934
Breusch-Godfrey Test	61830.24**	105615.3**	264028.7**	182762.2**
ADF Test (at level)	-1.1245	-1.675	-1.32	-1.83
ADF Test (at 1st difference)	-35.068**	-14.228**	-44.531**	-25.330**
Phillips Perron Test (at level)	-2.9374*	-1.96	-1.33	-1.80
Phillips Perron Test (at 1st difference)	-46.635**	-46.994**	-44.499**	-45.238**

Table 4: Runs Test

Particulars	Brazil	Russia	India	China
Test Value	10.93	7.31	9.83	7.93
Cases < Test Value	1073	1073	1073	1073
Cases >= Test Value	1074	1074	1074	1074
Total Cases	2147	2147	2147	2147
Number of Runs	80	73	42	44
Z Value	-42.936	-43.238	-44.576	-44.490
Asymptotic Significance (2-tailed)	0.000	0.000	0.000	0.000

Figure 1: Stock Prices (in Logarithm)
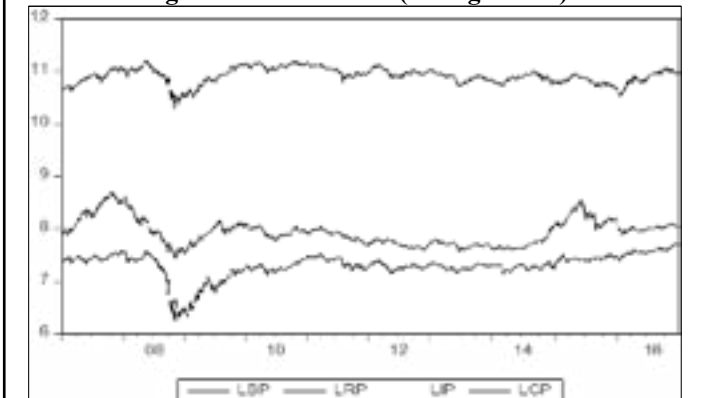
FACTORS AFFECTING CONSUMER INVOLVEMENT IN PURCHASE OF GARMENTS: A QUANTITATIVE ANALYSIS FOR MARKETING STRATEGIES

Sapna Parihar★

Involvement refers to how much money, time, thought, energy and other resources consumers devote for purchasing a product. It is one of the fundamental concepts used to explain the consumer buying process. The level of involvement is affected by the amount of efforts consumers give to learn about the product and to take purchase decision. The aim of this study is to find factors of consumer involvement in purchase of garments and its impact on level of consumer involvement. Data is collected from buyers of garments in Indore city by using a self designed questionnaire and Zaichkowsky's (1985) uni-dimensional conception of involvement. Regression analysis is used to see the impact of various factors on consumer involvement. The model is tested also tested for autocorrelation, multicollinearity and heteroscedasticity. Results show that evaluation, apprehension and consciousness have significant effect on consumer involvement. Whereas regression coefficients of ambience/buying capacity and performance risk do not explain considerable effect in purchase of garments, hence relevant marketers should concentrate on these aspects before production, processing and making future marketing strategy.

Keywords: Consumer, Garments, Marketing, Strategies

The era of broadening and globalization of market requires more in-depth knowledge about the consumers and their behavior. In this context, involvement becomes one of the most important aspects to explain and predict consumer behavior. Involvement refers to how much money, time, thought, energy and other resources consumers devote for purchasing a product. It is one of the fundamental concepts used to explain the consumer buying process. The level of involvement is affected by the amount of efforts consumers give to learn about the product and to take purchase decision. It is a state of motivation, excitement or interest and is driven by current external variables (situation, product, risk, experience, hedonic value, communication etc.) and past internal variables (enduring, ego and central values). Involvement measures the personal relevance with the product and how consumer is attached with the product. Involvement includes an assessment of the importance of the stimulus for the consumer but it produces certain behavior as consequences such as customers pay more attention if they are involved with the product. Involvement is a mental and physical effort, customer gives during purchasing a product. The intensity of these efforts may vary with different situation, different product and different consumers.

The consumption rate of Indian customers has gone up since liberalization. International brands are coming up with many product categories and options to choose from. Customers have started giving more importance to choose from the various available products. The increase in number of malls with various retail outlets, additional benefits, offers, attractive packaging and brand endorsement by celebrities have also led to high involvement of consumers in the purchase process. Nowadays marketers appreciate the importance of understanding their customers and thus if they come to know the level of involvement with various product options, risk associated with the product and their psychology then they can plan their marketing strategies, target consumers and allocate their resources accordingly. "The degrees to which customers are involved in different aspects of the consumption process such as product, advertisements and the act of purchasing has grown to be regarded as one of the central determinants of consumer behavior. The main reason for this lies in the potential of involvement to account for the differences in the degree of both mental and the physical effort a customer is willing to devote to consumption related activities (Laaksonen 1994)". Involvement refers to how much money, time, thought, energy and other resources consumers devote for purchasing a product. It is one of the fundamental concepts used to explain the consumer buying process.

The level of involvement is affected by the amount of efforts consumers give to learn about the product and to take purchase decision. It is a state of motivation, excitement or interest and driven by current external variables (situation, product, risk, experience, hedonic value, communication etc.) and past internal variables

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(enduring, ego and central values). Consumer Involvement is a source to explain the differences in the degree of both mental and physical effort of a consumer and his decision making (Beharrell and Denison, 1995; Laaksonen, 1993). Past studies distinguish consumer involvement into three categories i.e. cognitive-based models, individual-state models and responsive based models (Costley, 1988; Laaksonen, 1994). In cognitive-based model of involvement, involvement is defined as the perceived relevance of an object to the consumer (O'Cass, 2000; Zaichkowsky, 1985, 1986). Consumer can be involved with a product or product category or any activity such as shopping. Where in individual-state model of involvement, involvement is viewed as a mental state evoked by a stimulus such as a shopping situation (Costley, 1988). Involvement is viewed as a temporary motivational state, a level or arousal, as may occur at the time when consumer is making a purchase decision that is important to them (Michaelidou & Dibb, 2008). In response-based model of involvement, involvement is defined as the responses of a consumer, such as the amount of information search undertaken or extensiveness of decision-making. This study is undertaken with the assumption that consumers put more efforts, perceive various risks and give more time for information searching to purchase a product which costs high and have the property of being more durable. Attributes of the product, customer's profile, perceive risk and efforts influence customer's level of involvement with the product. As intensity of these attributes, risk, efforts, durability increases level of consumer involvement also increases. There are several factors that determine the degree of consumer involvement in making purchase decision such as personal factor, product factor, situational factor, perception of difference among alternatives, time availability, and consumer's mood state etc.

Objectives

To identify the factors associated with the consumer involvement in garments. To find the impact of various factors on consumer involvement in purchase of garments and to propose a model.

Rational

Now days when plenty of alternatives are available in the market to attract customers, corporate world needs to understand the various aspects of consumer psychology and behavior to survive in the market. This study is mainly beneficial for corporate committee/board, academicians and consumers. Various customers have various product choice and involvement level. By this study corporate committee will be able to make their marketing strategies and can segment their markets on the basis of involvement to know customer's aspiration. This research is focused on garments. As study identifies factors of consumer involvement for the mentioned product, corporate committee could understand how these factors influence customer's decision making process. For the academicians this study would be further step to know the involvement level in Indian context and to continue the findings of previous studies in a homogeneous research context. Standardized scale may refer to know factors of consumer involvement for other product also. This study will increase awareness of involvement level and product choice among the consumers.

I. Review of Literature

Consumer involvement is a source to explain the differences in the degree of both mental and physical efforts of a consumer and his decision making (Beharrell and Denison, 1995; Laaksonen, 1993). (Bloch, 1986) defined as 'unobservable state reflecting the amount of interest, arousal, or emotional attachment a consumer has with a product. (Kapferer and Laurent,1985) describe involvement as the state of motivation or arousal induced by factors such as interest, pleasure, sign value and risk, while (Robertson,1976) expresses it as the ' strength of the individual's belief system' related to product or brand attributes. (Mitchell,1979) took a similar view in defining involvement as "an individual level, internal state variable that indicates the amount of arousal, interest or drive evoked by a particular stimulus or situation". (Beharrell, Brain and Denison ,1995) defined Consumer involvement refers to feelings of interest, concern and enthusiasm held towards product categories and brands. (Traylor and Joseph, 1984) conceptualized involvement as a consumer response to a product, message, medium or situation furthermore involvement is a response that reflects an individual's sense of self or identity and is activated by external stimuli.

The involvement ranges from low to high. The degree of involvement is determined by how important consumers perceive the product to be. The level of involvement or perceived significance of the product varies from situation to situation. (Anthony and Leavitt,1984) identified four levels of involvement (in order from low to high) as pre-attention, focal attention, comprehension, and elaboration. Lower levels use relatively little capacity and extract information needed to determine whether higher levels will be invoked. The higher levels require greater capacity and result in increasingly durable cognitive

and attitudinal effects. Beharrell and Denison (1995) revealed routine buying situation has invariably been regarded as a low involvement activity, characterized by negligible information search, little deliberation in brand choice and ease of brand switching to a substitute within a category. (Ling, Pysarchik and Choo ,2004) revealed that different levels of product involvement may have different influences on consumer adoption behaviors. Several factors exist that determine the degree of consumer involvement such as personal, product and situational factor. (Jain and Sharma,2002) depict product involvement such as inherent needs, values and goals of an individual motivate him/her towards the object. The more important the consumer considers his needs, values and goals; the higher is expected to be his involvement with a product also a high involvement occurs when the product related strongly with the person's central value.

(Sridhar,2006) revealed that involvement levels differ from individual to individual and product to product. Consumers are more involved in high cost durable product and comparatively less involved in low cost nondurable product. (Jain and Sharma,2002) also revealed that consumer involvement varies with different product such as refrigerator, watches, bathing soap washing machine, furniture, dresses for daily wear and special occasion, cosmetic, cold drink etc. and also significantly differs with various demographic variables like profession, age, gender, Family life cycle, education. Level of consumer involvement is influenced by various risk consumer perceives with the product. (Jacoby, Szybillo and Kaplan, 1972) identified five types of perceived risk such as financial, physical, functional, psychological (i.e. sign value or symbolic meaning), and social risk that consumer might suffer due to mispurchase of a product. Shridhar (2007) revealed that various perceived risks have significant impact in consumer involvement in purchase of various product categories. Uncertainty in purchase, financial risk, performance risk, physical risk and time risk have strong influence on consumer involvement in television while uncertainty in purchase, financial risk and psychological risk have strong influence on consumer involvement in toilet soap. (Kapferer and Laurent,1985b) developed a CIP scale measuring involvement along five dimensions/facets, namely, "interest, pleasure, sign, risk importance and risk probability.

(Silayoi and Speece,2004) revealed that packaging plays an important role in purchase decisions. Color, size, shape, graphics and available information influence the buyer's decision. Housewives and working women identified packaging elements as the main factors in their assessment and decisions on household purchase. (Thomas and Linda,2007) also revealed that packaging is a very important clue for many shoppers when trying to assess the quality of a wine. (Ahmed et.al,2004) showed brand and price are more important than Country origin in evaluating low-involvement products like coffee and bread. (Shwu-Ing Wu,2001) argued that the level of consumer involvement influenced the advertising effectiveness. Degree of consumer involvement could effectively segment the market. Consumer involvement and advertising content importance (type of media, the degree of repetition, the length of the message, the tone of the message, and the quantity of information) are positively related. A high degree of consumer involvement directed a high advertising effect. Thus, the degree of consumer involvement is an important indication for an advertising strategy. (Kim, Damhorst and Lee, 2002) revealed that dimension of involvement influenced consumer attitude about apparel attributes and each dimension plays a unique role in those attributes. Consumers who are more involved in comfort ability of apparel product usually pay their attention on design/utility and need/preference attributes in the advertisement while consumers with higher personal relevance for individuality and fashionalibity in clothing use brand name as primary cue for evaluating products. (Slama and Taschian's,1986) reveal that women as compared to men have higher levels of involvement with purchasing activity.

(Varki and Wong ,2003) examined the impact of consumer involvement on consumer willingness to engage in relationships with service providers. Study revealed that in telecom and health sector, highly involved consumers are more interested in healthy relationship and express greater interest to maintain relationships with service providers. (Beharrell and Denison,1995) revealed that customers take interest in purchase of grocery goods such as preserves, bakery, cereals, dairy soup, toiletries and fresh meat. Grocery shopping activity becomes highly involving in the event of a stock-out, customers may search the whole store or even undertake a second shopping trip to obtain it. Consumers seem to be as highly involved in purchase decisions related to fresh meats and dairy products. Study also determines whether there is an association between levels of involvement and brand commitment. For all the six products, consumers are not ready to sacrifice and decide to shop elsewhere for a brand that is not available in the store at the time of shopping although association between levels of involvement and brand commitment is week also association between levels of purchase involvement and brand commitment for seven product categories are significant.

(O'cass,2001) explored that there are distinct differences in the discriminating values for males versus females for involvement in the purchase decision and communications for fashion clothing. The values of males and females are impacted significantly and differently on involvement. For purchase decision involvement key values for males are excitement, influential and negatively curiosity while for females preserving image, excitement are key values.

Sampling: Data and Reliability Test

To measure consumer involvement Zaichkowsky's (1985) unidimensional conception of involvement was adapted. Zaichkowsky presented a 20 items bipolar 5 point likert scale called Personal- Involvement-Inventory (PII). As the items were measured using a five point likert scale with minimum value of 1 and maximum value of 5 hence the theoretical values of the responses for each product is ranged between 20 to 100.

In order to identify factors of consumer involvement a self designed questionnaire was prepared. A draft questionnaire was developed based on the review of literature and circulated to a group of expert as a part of a pilot study. A few members of management institute were also contacted. Based on their suggestions the questionnaire was revised. The final questionnaire consists of 28 statements to find factors of consumer involvement and 20 statements (PII) to check level of consumer involvement. Reliabilities of the scales are satisfactory, as reliability coefficient (alpha) is .8719. Data were collected from 500 respondents from the Indore city. The questionnaires were distributed to the respondents personally and they were asked to fill up their responses on their own with universal instructions given to all on the title page of the questionnaire. They were asked to give demographic details and their extent of agreement on all the 48 statement on a five point likert scale ranging from 1 to 5 (1=strongly disagree to 5=strongly agree). 448 questionnaires were returned with proper responses and 52 had to be rejected hence 448 respondents constituted the sample for the study.

II. Research Design & Methods

Factor analysis with varimix rotation is used to identify various factors affecting consumer involvement in purchase of garments. The effect of extracted factors on consumer involvement is determined by stepwise multiple regression analysis, hence H01, H02, H03, H04 and H05 are tested by stepwise multiple regression analysis to find the impact of various factor on consumer involvement. Regression analysis is concerned with the study of the dependence of one variable, the dependent variable, on one or more other variables, the explanatory variables. The objective of such analysis is to estimate and/or predict the mean value of the dependent variable on the basis of the known or fixed values of the explanatory variables. Regression is a technique for measuring the linear association between a dependent and independent variables. It is an attempt to predict the values of continuous, interval scaled dependent variable from specific values of the independent variables. Multiple regression analysis is an extension of bivariate regression analysis, which allows for the simultaneous investigation of the two or more independent variables on a single interval-scaled dependent variable. In the present study the regression model is formulated as

$$Y= \beta 0+ \beta 1\ X1+ \beta 2\ X2+\text{-------------------------}\ \beta n Xn+\mu i$$

Where Y= Dependent variable X_i = Independent variables $\beta 0$= Intercept βi = Slope of the line

μi= Error terms.

Hypotheses

H01. Consumer involvement and propensity of evaluation for garments are not associated.

H02. Consumer involvement and apprehension in purchase of garments are not related.

H03. Consumer involvement and level of consciousness in purchase of garments are not related.

H04. Consumer involvement in garments and influence of ambience/discount and buying capacity are not related.

H05. Consumer involvement and performance risk in purchase of garments are not related. The regression model is also tested for autocorrelation, multicollinearty and hetroscadasticity using sign test, Pair wise Correlation and VIF and white test respectively.

H06. There is no correlation among the residuals or residual terms are independent in suggested model for garments (Autocorrelation).

H07. Evaluation, consciousness and apprehension in urchase of garments are not related significantly (Multicollinearity).

H08. There is no heteroscedasticity in the proposed model for consumer involvement in Garments (Heteroscedasticity).

Sign Test

Hypothesis H06 is tested by run test to verify autocorrelation in the model. Autocorrelation is violation of the assumption that the errors are uncorrelated and independent.

Mean E(R) = (2*N1*N2/N) +1   VAR σ2R = 2N1N2 (2N1N2-N)/N2 (N-1)

Prob. {E(R)-1.96 σR≤ R ≤ E(R) + 1.96 σR} where

Total Number of observation (N)   Number of +ve symbols (+ Residual) = N1   Number of -ve symbols (- Residual) = N2   R= Total number of run

Pair wise Correlation and VIF

When variables are highly correlated in a multiple regression analysis it is difficult to identify the unique contribution of each variable in predicting the dependent variable because the highly correlated variables are predicting the same variance in the dependent variable. This is known as multicollinearity. Hypothesis of multicollinearity H07 is tested by VIF and pair wise correlation analysis to verify correlation among the independent variable (multicollinearity) in the model. Where pair wise correlation analysis helps us in determining the degree of relationship among the independent variables or multi collinearity exists when tolerance is below .1; and VIF (Variance Inflation Factor) is greater than 10.

$r = cov (X_iX_j) /σ_i σ_j$

White Test

In the classical linear regression the error term is assumed to be homoscedastic – constant across observations. Violation of this assumption is the reason of hetroscedasticity. White's test involves regressing the squared error term from the OLS regression on the independent variables, square of independent variable and cross product of them in the regression. The r-squared from that regression is multiplied by n. The result is a test statistic distributed approximately as chi-squared. Hypothesis H08 is tested by white test to confirm hetroscedasticity in the models.

Var (ui) = s2 < ¥

White Test = n*R2 < χ2

III. Results & Analysis

Factor analysis with varimax rotation (Table 1) reveals five factors of consumer involvement in purchase of garments such as evaluation, apprehension, consciousness, ambience /discount and performance risk. Stepwise multiple regression models for garments (Table 2) revealed that evaluation, apprehension and consciousness have significant effect on consumer involvement in garments. These predictors jointly explain 46.32 % variation in consumer involvement with garments. ANOVA confirms

the linearity in the proposed model. Remaining two excluded factors named as ambiance/discount and performance risk could not explain significant effect on consumer involvement. As t value is not significant for the excluded factors hence H01, H02 and H03 are rejected while H04 and H05 are accepted.

Consumer Involvement = 11.21+1.03(Evaluation)+0.39(Consciousness)+0.23(Apprehension)+μ

t =   (4.41)*   (12.4)*   (3.32)*   (2.28)*

Where * indicate p value is less than 5% (p<.05)

Test of Autocorrelation

Gray test (Run test) confirms no autocorrelation in the model. As Table 3 shows the number of run R = 216 includes in the obtained interval (204.23, 224.61). Hence we accept null hypothesis (H06) of no autocorrelation or successive residuals obtained from regression analysis are not correlated and the residuals do not exhibit autocorrelation.

TEST OF MULTICOLINEARITY

The correlation among all the independent variables is not very. Table 4 shows that Variance Inflation Factor is below 10. This shows that multicollnearity does not exist in the model and evaluation, consciousness and apprehension are not related significantly in the proposed regression model hence H07 is accepted.

Test of Heteroscedasticity

Var (ui) = s2 < ¥   White Test = n*R2 < χ2

Where n=sample size, R2=total variance explained by the independent variables. It follows χ2 distribution at .05 level of significance and degree of freedom = 7 (number of independent variables)

Auxiliary Regression Equation:

(Residual)2 = β0+ β1(Evaluation)+ β2(Consciousness)+ β3 (Apprehension)+β4(Evaluation)2+ β5(Consciousness)2+ β6(Apprehension)2+β7(Consciousness *Evaluation *Apprehension)

Table 5 shows (n*R2 > χ2 as 42.72>14.06) at .05 level of significance. Hence null hypothesis H08 is accepted. White's test confirms that there is no heteroscedasticity in the model.

IV. Conclusion

The impact of evaluation, apprehension consciousness,

ambience/buying capacity and performance risk on consumer involvement in garments is determined by stepwise multiple regression analysis. The regression coefficients (β's) of evaluation, apprehension and consciousness are statistically reliable hence these factors have significant effect on consumer involvement. Whereas regression coefficients of ambience/buying capacity and performance risk do not explain considerable effect in purchase of garments. This shows that customers always evaluate cost, utility, style, attribute, durability. They hesitate and perceive social risk in purchase of garments. Country of origin, physical suitability and packaging influence consumer involvement as the evaluation, apprehension and consciousness increases consumer involvement also increases. Model also explains that consumers in purchase of garments do not pay attention on environment of the shop/store and performance of the garments hence garment industry should concentrate on these aspects before production, processing and making future marketing strategies. Market researchers of garment industry should keep these factors into consideration and understand customers buying behavior before making marketing strategies and policies. The study has further scope to investigate some untouched areas such as demographic analysis so that finding can be generalized across the society. Various levels of family life cycle and profession can be important demographic variables to be studied. Ambience and performance could not give significant effect in purchase of garments hence further studies can be done to investigate the reason of these findings.

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Table 1: Result of factor analysis

Evaluation	
Constituting Attributes	Factor Load
Style	0.714608931
Gift	0.650623236
Cost	0.632108314
Frequency Of Use	0.533084124
Utility	0.521580905
Durability	0.516708597
Hedonic	0.506177989
Brand Personality	0.427473322
Attribute	0.396235371
Apprehension/Nervousness	
Uncertainty	0.678890109
Psychological Risk	0.651070432
Social Risk	0.473703234
Situation	0.445587778
Previous Shopping Experience	0.404565362
Motivation	0.396231652
Time Risk	0.360703086
Consciousness	
Country of Origin	0.595575444
Learning	0.580652573
Physical Risk	0.552905167
Ambience/Discounts and Buying capacity	
Offers	0.537645458
Location	0.408837438
Financial Risk 2	0.227081275
Performance Risk	
Performance Risk	0.553271118
Financial Risk 2	0.538069038

Table 2: Result of regression analysis

ANOVA					
	Sum of Squares	**Dof**	**Mean Square**	**F**	**Sig.**
Regression	28698.98	3.00	9566.33	127.75*	0.00
Residual	33248.40	444.00	74.88		
Total	61947.38	447.00			
Model Summary					
R	**R Square**	**Adjusted R Square**		**Std. Error of the Estimate**	
0.680	0.463	0.459		8.653	
Result of Stepwise Regression					
	Unstandardized Coefficients	**S.E.**	**Standardized Coefficients**	**t**	**Sig.**
CONSTANT	11.21	2.54		4.41	0.00
EVALUATION	1.03	0.08	0.53	12.47	0.00
CONSCIOUSNESS	0.39	0.12	0.14	3.32	0.00
APPREHENSION	0.23	0.10	0.11	2.28	0.02

Table 3: Result of test of autocorrelation

Run Test (Gray Test)	
Total Number of observation (N)	448
Number of +ve symbols (+ Residual)	228
Number of -ve symbols (- Residual)	220
Number of Run (R)	216
Mean E(R)= (2*N1*N2/N)+1	224.92
VAR σ^2_R= 2N1N2(2N1N2-N)/N^2(N-1)	111.678
σ_R	10.56
Prob { E(R)-1.96 $\sigma_R \leq$ R $\leq$ E(R)+ 1.96 σ_R }	(204.23, 224.61)

Table 4: Correlation and variance inflation factor to test multicolinearity

Pair wise Correlation Analysis				
		Evaluation	Apprehension	Consciousness
Evaluation	Pear. Corr	1.00	0.56	0.43
	Sig. (2-tailed)	.	0.00	0.00
	N	448.00	448.00	448.00
Apprehension	Pear. Corr	0.56	1.00	0.57
	Sig. (2-tailed)	0.00	.	0.00
	N	448.00	448.00	448.00
Consciousness	Pear. Corr	0.43	0.57	1.00
	Sig. (2-tailed)	0.00	0.00	.
	N	448.00	448.00	448.00
Variance Inflation Factor				
	Colinearity Statistics			
	Tolerance		VIF	
Evaluation	0.66		1.51	
Consciousness	0.65		1.53	
Apprehension	0.55		1.82	

Table 5: Test of heteroscadasticity

Result of Auxiliary Regression			
R	R Square	Adjusted R Square	Std. Error of the Estimate
0.309	0.095	0.081	115.653
White Test			
Sample Size (n)	nR^2	DOF	χ2 at .05
445	42.72	7	14.06

Figure 1: Residuals for test of autocorrelation
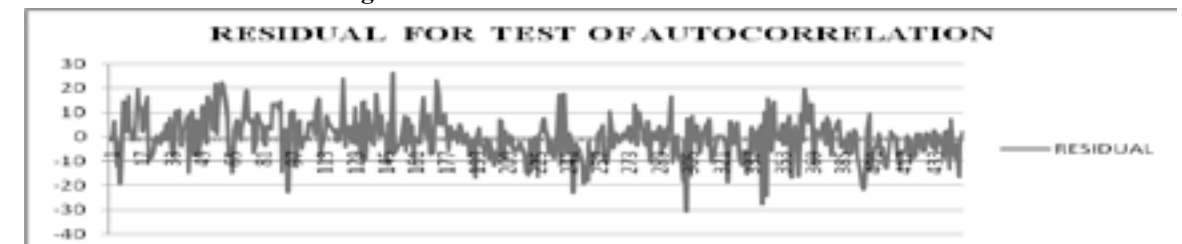
ORGANIZATIONAL JUSTICE AND ITS IMPACT ON GOAL ORIENTATION AND PERFORMANCE TOWARDS SERVICE SECTOR

Praveen Sahu★

Current study is based on primary data and data has been collected by self design survey questionnaires. Organizational justice refers to employee perceptions of fairness in the workplace. These perceptions can be classified into three categories: distributive, procedural, and interactional. Distributive justice reflects perceptions regarding fairness of outcomes, while procedural justice reflects perceptions of processes that lead to these outcomes. Interpersonal justice reflects perceptions of interpersonal interactions and treatment. Researcher used regression analysis as statistical tool for data analysis through statistical software.

Keywords: *Procedural Justice, Interactional Justice, Distributional Justice, Goal Orientation, Performance, Service Sector.*

This kind of justice that indicates the results being distributed corresponding to contributions - the so called equity principle (Adams, 1965). Results in a work setting may take the type of wages, social approval, manager stability, promotion and career opportunities. Although contributions would involve education, training, experience and effort, but it can be problematic to figure out what creates a proper level of award for a specific level of input. Individuals have a tendency to make this conclusion in relative terms, searching for an input–outcome proportion

The justice principle is as of now on one hand is maintained by the organizations to a wider level by standardized HR policies, for example, pre-planned job evaluations and pay scales, all comprehensive training and improvement opportunities, and evasion of "favoritism" in demonstrating acceptance. On the other hand, there may be events where a workforce feels there has been an inequitable distribution of advantages. Clearly, such choices by management are prone to be taken into account regarding contemplations other than tenure alone; however, these won't generally be clear to outside observers. The non promoted workforce may consider that their inputs were the same as their coworker, but then they have been remunerated in an unexpected way. Hence, they may look to change this perceived inequity either by decreasing their consequent endeavors, or by work to be rewarded to the same degree as their coworker. Either course of action is liable to be harmed or, best, inappropriate for their employers.

Procedural Justice

Procedural justice related to the decency of results is the procedure prompting a specific result. As simply noted, procedural justice can exceed distributive justice, that individuals may be willing to acknowledge an undesirable result in the event those which are accepted as the decision procedure. The same principles may apply to the speculative situation of promotion. A non promoted labourer may be assuaged in the event that he/she is satisfied and the framework used to decide promotions is transparent and free from predisposition.

Different Determinants of Procedural Justice

Notwithstanding being given a voice in organizational procedures, various further criteria may contribute to workers' perceptions of an equitable decision procedure, Leventhal G, Karuza J, & Fry W, (1980)

i. Consistency: The same allocations are made crosswise over persons, circumstances and time. This would mean, for example, that standard criteria are set up for contract terminations and workers are never rejected 'spontaneously'.

ii. Neutrality: conclusions are based on certainties, not on personal interests or individual feelings of the decision maker. Various data sources will help to make a complete and objective view of a circumstance.

iii. Accuracy: The data used to figure and justify the choice is up to date and right. Noise must be accepted and HR policies read up on before either is cited in a formal circumstance.

iv. Correct ability: provisions exist for testing and/or turning around ill-advised decisions, for example, grievance or appeal strategies.

v. Workers: Every one of those whom the result will influence has their concerns considered. This would mean, for example, consulting both smokers and non-smokers

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about the execution of a smoking ban, and considering feasible compromises for those whom it will inconvenience.

vi. Morality and ethicality: Age, gender, nationality and different extraneous variables have no bearing on the choice are made.

Interactional Justice

Interactional justice decreases under the umbrella term of procedural justice, however, it is sufficiently noteworthy to be considered in its own privilege. It alludes to the worth of the relational behavior expected by persons working in an organization, especially as a feature of formal decision making techniques. Bies and Moag (1986) recognize some key parts of interactional justice, which can improve individuals' perceptions of fair treatment.

i. Truthfulness: Data that is given must be accurate and correct, and introduced in a transparent way.

ii. Respect: Workers ought to be treated with self- respect, with no plan of action to insults or impolite conduct.

iii. Propriety: queries and explanations ought to never be "inadequate" or include biased components, for example, racism or sexism.

iv. Justification: When a perceived inequality form has happened, giving a 'social record, for example, a clarification or can reduce or dispose of the feeling of anger produced.

Performance

The impact of organizational justice perceptions on performance is believed to stem from equity theory. This would suggest that when people perceive injustice they seek to restore justice. One way that employees restore justice is by altering their level of job performance. Procedural justice affects performance as a result of its impact on employee attitudes. Distributive justice affects performance when efficiency and productivity are involved (Cohen-Charash& Spector, 2001). Improving justice perceptions improves productivity and performance (Karriker& Williams, 2009).

Goal Orientation

The earliest conceptualizations of goal orientation were proposed in the 1970s by the educational psychologist J.A. Eison. Eison argued that students who approached college as an opportunity to acquire new skills and knowledge possessed a learning orientation while students who approached college with the goal to exclusively obtain high grades possessed a grade orientation. Eison originally believed that these two orientations were two ends of the same continuum and developed the Learning Orientation-Grade Orientation Scale to measure the continuum. At about the same time, J.G. Nicholls was developing a related theory that achievement motivation would lead grade school children to set high task related goals. Nicholls found that when some high-ability children encountered difficult tasks, they would use maladaptive strategies, leading to eventual feelings of helplessness, while others would use more productive coping strategies. Nicholls later conceptualized these differences as two types of achievement goals: (a) task involvement: where individuals seek to develop their competence relative to their own abilities and (b) ego involvement: where individuals seek to develop their competence relative to the abilities of others. Nicholls's early work set up Dweck's proposition of two types of goal orientation learning orientation and performance orientation.

I. Review of Literature

Yui Tim Wong, (2004)In this study, we research the connections of saw hierarchical equity, trust, and authoritative citizenship conduct (OCB) among Chinese specialists in joint endeavors (JVs) and state-possessed ventures (SOEs). they examine information gathered from 295 and 253 director subordinate dyads in a JV and a SOE individually, and the outcomes bolster our theories. The hypothetical and handy ramifications of this study are talked about. JolynGelens, Nicky Dries, JoeriHofmans, & Roland Pepermans (2013) Ability administration need a hypothetical establishment and observational exploration at the singular's level. To address these crevices, the ebb and flow paper depends on the writing on workforce separation and gives an examination motivation by presenting saw hierarchical equity as a key middle person between ability administration practices and differential worker reactions. MoisésBalassiano& Denise Salles (2012) It Learns about people responsibility to associations get restored enthusiasm for light of the progressions forced by new authoritative structures and 'limit less' professions. The need to recognize and hold people who enhance the association constitutes an expanding test confronting human asset experts. Philippe Aurier&Be´atriceSiadou-Martin,(2007). This paper intends to examine the part of saw equity in administration utilization by experiences. Design/strategy/approach – In a starting study, utilizing the discriminating episode technique, the creators demonstrate that clients are firmly worried by saw bad form. Amanuel G. at el.,(2005). This study stretches out former exploration on the chain of connections among hierarchical equity, social trade connections, and worker

responses by examining the proposed interceding part of mental contract infringement. Results acquired from a longitudinal outline looking at an example of 191 workers give solid backing to the proposition, improve support for chain directionality, approve hypothetical forecasts about determinants of agreement infringement, and give introductory proof supporting a proposed coordination of saw hierarchical backing and mental contract hypothesis.

Jason A, at el (2014) past exploration has uncovered huge connections between authoritative equity measurements and occupation execution, and trust is thought to be one arbiter of those connections. In any case, trust has been situated in equity speculating in 2 unique courses, either as a pointer of the profundity of a trade relationship or as a variable that reflects levels of business related instability. Piccolo, Lepine, Zapata, & Rich, (2012) in their empirical study researchers had revealed significant relationships between organizational justice dimensions and job performance, and had given trust to be the one mediator of those relationships. Cropanzano, Byrne, Bobocel, & Rupp, (2001) in their research researcher mainly emphasised on decision making that may also fulfils key psychological needs on the part of employees, injecting a sense of belonging into organizational relationships. McAllister's conceptualization (1995) emphasizes a mutual sharing of ideas, a mutual sharing of work related difficulties, and a mutual sense of caring and investment.

Objectives

1. To examine the positive relationship between Procedural Justice, Goal Orientation and Performance
2. To examine the positive relationship between Interactional Justice, Goal Orientation and Performance
3. To examine the positive relationship between Distributional Justice, Goal Orientation and Performance
4. To open new gateway of the future research

II. Research Design & Methods

Hypotheses

H01 Procedural Justice does not affect Goal Orientation and Performance

H02 Interactional Justice does not affect Goal Orientation and Performance

H03 Distributional Justice does not affect Goal Orientation and Performance

Sample design

Population

Includes all the faculty of Gwalior division.

Sampling frame

The entire student, college employees etc. has been sampling frame.

Sampling technique

Convenient sampling technique has been used to identify the response of respondent for the study.

Sample size

Sample size was 140questionnaires distributed and 127 questionnaires were returned with proper response.

Tools to be used for data collection

Self design questionnaire was used to measures all the variables. The data is collected on the scale of 1-5 Likert's scale.

Tools to used for Data Analysis

Reliability Analysis, Normality Analysis and Regression Analysis

Secondary data sources

Collected these data from different sources i.e. news papers, books, magazines, researcher articles which published in national and international journals, published and unpublished thesis, reports of govt. and corporate etc.

III. Data Analysis & Interpretation

Reliability Analysis

Reliability examination for all the three variables including factors were carried out by using SPSS software and the reliability test actions are given in Table 1.

The obtain value of Cronbach's alpha for our all are quite higher than standard value of Cronbach's alpha i.e. 0.700 as it can be seen in table, hence the three questionnaires for this study purpose were highly reliable and provide us relevant information as we want from data side. Please see Table 2.

TheKolmogorov-Smirnov value should insignificant as it can be seen in the table that the Kolmogorov-Smirnov value through Normality test Value arealso insignificant, hence these insignificant values indicating our data is has been normally distributed.

Regression

Multiple Regressions between Behaviour Outcome and Justice

Multiple Regressions between Procedural Justice and Behaviour Outcome (Goal Orientation, Satisfaction & Performance)

The regression is calculated by taking the total of Procedural Justice and Behaviour Outcome (Goal Orientation & Performance) using statistical software. In this calculation Procedural Justice is Independent Variable and Behaviour Outcome (Goal Orientation & Performance) is dependent variable.

H01: There is no Impact of Procedural Justice on Goal Orientation towards service organization

H02: There is no Impact of Procedural Justice on Performance towards service organization

Interpretation 1

In ANOVAb the F-test valuesi.e.3135.962 significant at 0.000b level indicating this model have good fit.

The result of regression from the coefficienta table indicates value of t 56.000 at 0.00% significance.

In the model summarybshows R square value 0.888 with beta value 0.942 indicates 88.8% of variance explained by Procedural Justice and Goal Orientation. It mean that there is heavy relationbetween Procedural Justice and Goal Orientation through sig value i.e. 0.00,

In other words Procedural Justice has 88.8% impact on Goal Orientation.

Hence the null hypotheses H01 was rejected by the result

Interpretation 2

In ANOVAb the F-test valuesi.e.8.851 significant at 0.000b level indicating this model have good fit. Please refer Table 3 & Chart 1.

The result of regression from the coefficienta table indicates value of t 2.975 at 0.00% significance.

In the model summarybshows R square value 0.022 with beta value 0.148 indicates 88.8% of variance explained by Procedural Justice and Performance. It mean that there is heavy relationbetween Procedural Justice and Performance through sig value i.e. 0.00,

In other words Procedural Justice has 88.8% impact on Performance.

Hence the null hypotheses H02 was rejected by the result

Multiple Regressions between Interactional Justice and Behaviour Outcome (Goal Orientation & Performance)

The regression is calculated by taking the total of Interactional Justiceand Behaviour Outcome (Goal Orientation & Performance) using statistical software. In this calculation Interactional Justice is Independent Variable and Behaviour Outcome (Goal Orientation & Performance) is dependent variable.

H03: There is no Impact of Interactional Justice on Goal Orientation towards service organization

H04: There is no Impact of Interactional Justice on Performance towards service organization

Interpretation 3

In ANOVAb the F-test valuesi.e.132.240 significant at 0.000b level indicating this model have good fit. Please refer Table 4 & Chart 3 & 4.

The result of regression from the coefficienta table indicates value of t 11.500 at 0.00% significance.

In the model summarybshows R square value 0.250 with beta value 0.500 indicates 25.0% of variance explained by Interactional Justice and Goal Orientation. It mean that there is heavy relationbetween Interactional Justice and Goal Orientation through sig value i.e. 0.00,

In other words Interactional Justicehas 25.0% impact on Goal Orientation.

Hence the null hypotheses H03 was rejected by the result

Interpretation 4

In ANOVAb the F-test valuesi.e.151.498 significant at 0.000b level indicating this model have good fit.

The result of regression from the coefficienta table indicates value of t 12.308 at 0.00% significance.

In the model summarybshows R square value 0.277 with beta value 0.526 indicates 27.7% of variance explained by Interactional Justice and Performance. It mean that there is heavy relationbetween Interactional Justice and Performance through sig value i.e. 0.00,

In other words Interactional Justice has 27.7% impact on Performance.

Hence the null hypotheses H04 was rejected by the result

Multiple Regressions between Distributional Justice and Behaviour Outcome (Goal Orientation & Performance)

The regression is calculated by taking the total of Distributional Justice and Behaviour Outcome (Goal Orientation & Performance) using statistical software. In this calculation Distributional Justice is Independent Variable and Behaviour Outcome (Goal Orientation & Performance) is dependent variable.

H05: There is no Impact of Distributional Justice on Goal Orientation towards service organization

H06: There is no Impact of Distributional Justice on Performance towards service organization

Interpretation 5

In ANOVAb the F-test valuesi.e.13.173 significant at

0.000b level indicating this model have good fit. Please refer Table 5 and Chart 5 & 6.

The result of regression from the coefficienta table indicates value of t 3.629 at 0.00% significance.

In the model summarybshows R square value 0.032 with beta value 0.179 indicates 3.2% of variance explained by Distributional Justice and Goal Orientation. It mean that there is heavy relationbetween Distributional Justice and Goal Orientation through sig value i.e. 0.00,

In other words Distributional Justice has 3.2% impact on Goal Orientation.

Hence the null hypotheses H05 was rejected by the result

Interpretation 6

In ANOVAb the F-test valuesi.e.1751.804significant at 0.000b level indicating this model have good fit.

The result of regression from the coefficienta table indicates value of t 41.855 at 0.00% significance.

In the model summarybshows R square value 0.815 with beta value 0.903 indicates 81.5% of variance explained by Distributional Justice and Performance. It mean that there is heavy relationbetween Distributional Justice and Performance through sig value i.e. 0.00,

In other words Distributional Justice has 81.5% impact on Performance.

Hence the null hypotheses H06 was rejected by the result

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Table 1: Reliability Analysis

	Variable Name	Cronbach's Alpha	No of Items	Status
	Organizational Justice	.825	24	Statement Highly Reliable
1.1	Procedural Justice	.706	7	Statement Highly Reliable
1.2	Interactional Justice	.670	8	Statement Highly Reliable
1.3	Distributive Justice	.675	9	Statement Highly Reliable
	Goal Orientation	.704	5	Statement Highly Reliable
	Performance	.723	9	Statement Highly Reliable
	Total	.935	38	All Statement Highly Reliable

Table 2: Normality Analysis

	Variable Name	Kolmogorov-Smirnov[a]	Shapiro-Wilk	Status
	Organizational Justice	.565	.612	Normal
1.1	Procedural Justice	.143	.183	Normal
1.2	Interactional Justice	.201	.265	Normal
1.3	Distributive Justice	.056	.098	Normal
	Goal Orientation	.092	.112	Normal
	Performance	.066	.079	Normal

Table 3

Independent Variable	Dependent Variable	R	R²	F	T	Beta	Sig.	Action
Procedural Justice	Goal Orientation	.942	.888	3135.962	56.000	.942	.000	Rejected
Procedural Justice	Performance	.148	.022	8.851	2.975	.148	.000	Rejected

Chart 1
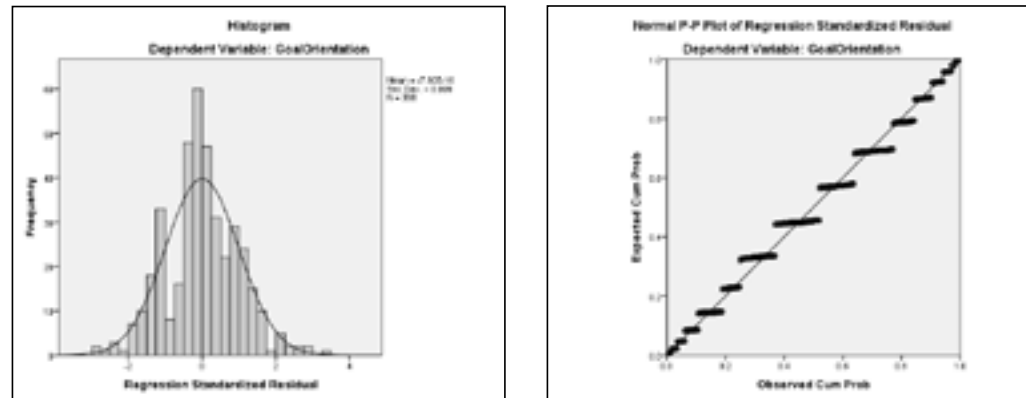
Chart 2
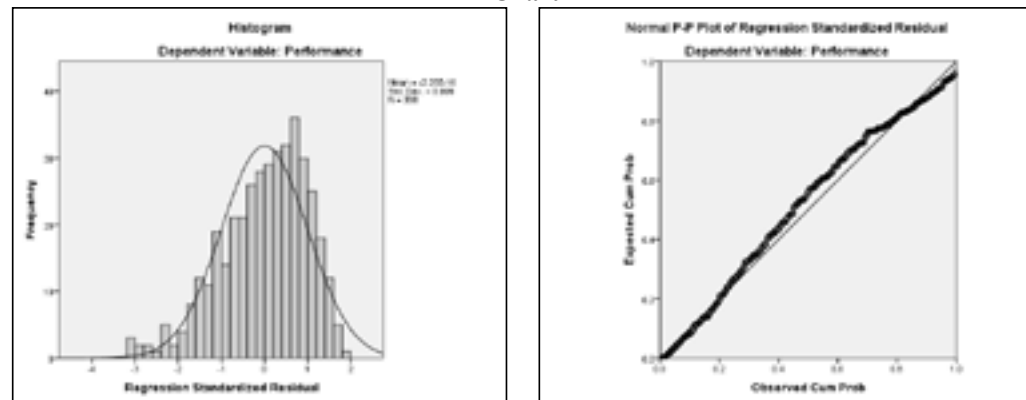
Table 4

Independent Variable	Dependent Variable	R	R²	F	T	Beta	Sig.	Action
Interactional Justice	Goal Orientation	.500	.250	132.240	11.500	.500	.000	Rejected
Interactional Justice	Performance	.526	.277	151.498	12.308	.526	.000	Rejected

Chart 3
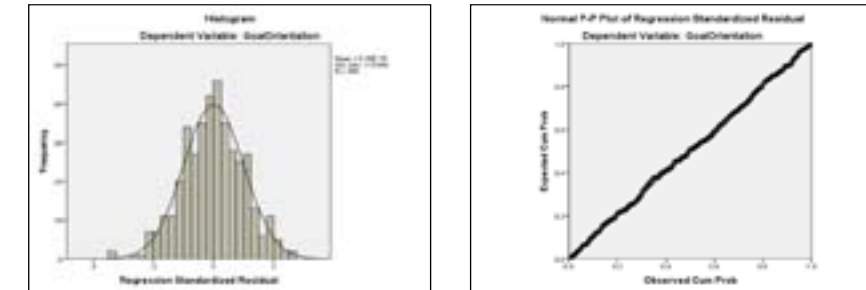
Chart 4
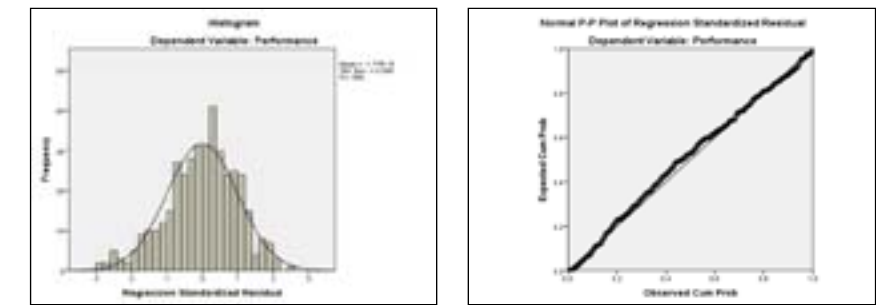
Table 5

Independent Variable	Dependent Variable	R	R²	F	T	Beta	Sig.	Action
Distributional Justice	Goal Orientation	.179	.032	13.173	3.629	.179	.000	Rejected
Distributional Justice	Performance	.903	.815	1751.804	41.855	.903	.000	Rejected

Chart 5

Chart 6

AN EMPIRICAL RESEARCH ON ROLE OF BANKS IN WOMEN EMPOWERMENT

Poonam Khurana★   Madhu Arora★★   Miklesh Prasad Yadav★★★

The present study is conducted to know the role of banks to the women empowerment and to suggest measures for uplifting women empowerment. structured questionnaire, based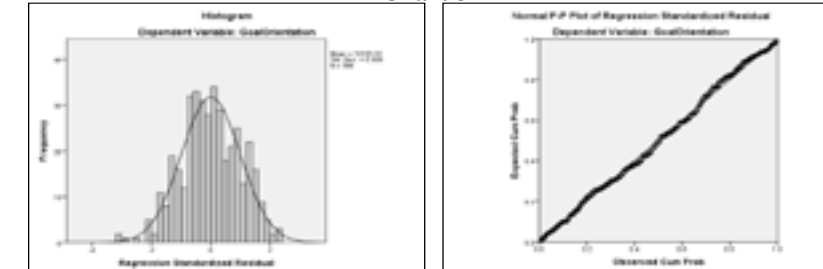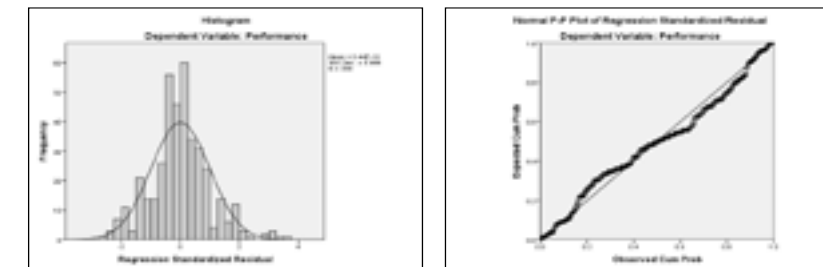 on 5 points LIKERT scale is used for the study. ANOVA, t-test and Chi-square test are used to test the hypotheses and validate the results. The analysis is in conformation with the objectives of the study and the hypotheses formulated. The collected data is analyzed through SPSS. Findings include banks should charge less processing fees, should introduce subsidy and grants to women entrepreneurs. It is also suggested that providing educational loans to girls students at lower rates may be a solution to women empowerment. Banks can play a dominant role in women empowerment by providing special schemes for the housewives for domestic upliftment of the women. Loans and facilities like Bank assurance will be more helpful for the purpose. It has been recommended that special schemes should be introduced for women education about knowledge of bank accounts and different facilities should also be provided by banks.

Keywords: Women, Empowerment, Role, Banking.

Women empowerment is a contemporary term that is elementary to many aspects like education, exertion and facilities specially provided to women etc. Banks provide many facilities to their customers like lending money, borrowing money and transferring money. Banks perform many functions. What is role being provided by banks for women empowerment is the crux of the issue. However, it will take time to go far as most of the people in India reside in villages and millions of them specially women are not having even an account in bank. Even mobile banking users in urban areas are not in large numbers. Some banks offer home loans to women on preferable basis. Some are offering other schemes but what is the perception of the customers of bank about women empowerment. The present piece of research is an attempt to throw some light on the related facts.

I. Review of Literature

In a study in Kenya by Mwobobia (2013), it was revealed that many small-scale women entrepreneurs in Umoja market, SMEs in Umoja are mainly sole proprietorships operating businesses such as salons, food outlets, transport, clothing shops among others, the challenges faced by the bank are mainly: nonpayment, diversion of funds, poor financial management among others. Among the recommendations put forward are: extension of loan repayment period, giving of loans in terms of assets, educating customers on the importance of loan repayment, training women entrepreneurs in areas of finance, budgeting and the needs of the poor, shown that access to formal savings accounts can lead to female empowerment general management

aspects and further research in this field. Women World bank (2013) focused that access to formal savings and investments may lead to female empowerment as it can enhance decision making power in many situations of normal life as well as critical life decisions. Bhartiya Mahila Bank (2013) found that if a bank can address the half population with financial soundness, it might have a positive effect on overall empowerment of the nation. As the awareness towards banking is very low in rural areas, therefore the promotion and awareness of service must be planned and promotional strategies must be aimed at all segment of the society. The Hindu (2015) stated that Stree Shakti Package introduced specially for the women entrepreneurs is going to strengthen the power of women in Industry and commerce. There have been numerous efforts done but no research has been conducted on the topic Disposition of banks in women empowerment so present study is an effort to fill the Gap

Women Empowerment Schemes by government

• Beti Bachao Beti Padhao Scheme
• One Stop Centre Scheme

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• Women Helpline Scheme
• Ujjawala : A Comprehensive Scheme for Prevention of trafficking and Reuse, Rehabilitation and Re-integration of Victims of Trafficking and Commercial Sexual Exploitation
• Working Women Hostel
• Rajiv Gandhi National Creche Scheme for the Children of Working Mothers
• Ministry approves new projects under Ujjawala Scheme and continues existing projects
• Swadhar Greh (A Scheme for Women in Difficult Circumstances)
• Revision under IGMSY in Accordance with National Food Security Act, 2013 in XIIth Plan
• Support to Training and Employment Programme for Women (STEP)
• Nari Shakti Puruskar
• Maternity Benefit Programme
• Mahila police Volunteers
• Mahila E-Haat

(Source: http://wcd.nic.in/schemes-listing/2405 dated 01-05-2017)

Rationale of the study

Tremendous changes have been observed in the society recently about view point of women empowerment. Banks are playing very important role in Indian economy. It is very crucial to be aware of nature of factors responsible for involvement of women so that efforts can be made in the right direction to women empowerment by banking.

II. Research Design & Methods

Scope of the Study

The present study is confined to suggest factors to banks for women empowerment based on perception of customers.

Objectives of the Study

The main objective of the research is to know on Role of Banks in Women Empowerment

In this broader framework, the following are the specific objectives of the study:

(i) To examine the demographic perception about women empowerment.

(ii) To suggest measures for improving role of banks in women empowerment.

Research Hypotheses

To validate the results of the study, the following hypotheses have been formulated:

H01: There is not a significant difference in the opinion of different demographic variables as to bank should play a crucial role women empowerment,

Ha1: There is a significant difference in the opinion of different demographic variables as to bank should play a crucial role for women empowerment

Sample Profile

All banks are considered for the study. Demographic variables are age, gender, education and occupation.

Data Collection

The present study is based on both primary and secondary data. Primary data have been collected from the customers selected by judgement sampling with the help of pre-structured questionnaire on five point Likert scale i.e. Strongly Disagree (SD), Disagree (D), Indifferent (I), Agree (A) and Strongly Agree (SA). After examination, 48 questionnaires from were found complete and used for further analysis. The other sources include the research studies and articles published in various journals, magazines, newspapers and websites.

Data Analysis

The collected data were analyzed through descriptive statistical techniques like frequency distribution, percentage, mean, mode, standard deviation and regression analysis etc. For coding and analyzing the data, weights were assigned in order of importance i.e. 1 to Strongly Disagree (SD), 2 to Disagree (A), 3 to Neutral, 4 to Agree (A), and 5 to Strongly Agree (SA). ANOVA, t-test and Chi-square test were used to test the hypotheses and validate the results. The analysis is in conformity with the objectives of the study and the hypotheses formulated. The collected data were analyzed through SPSS.

Limitations of the Study

The study is limited to the study of perception of customers only who are using banking facility, not of the bankers. As the perception may change in different time periods, therefore the perceptions of the customers are limited to the time - period of the study, i.e. March, 2017. As the study is only limited to customers of the banks Delhi and NCR only, therefore the results may not be applied to the banks in other parts of the country.

Significance of the Study

The present study would be beneficial to the policy makers,

bankers, customers and researchers to know designing suitable strategies for women empowerment.

III. Results & Discussions

Perception of Gender about Role of Banks in Women Empowerment: As is perceptible from Table 1 that male respondents suggest (Mean= 4.00 and S.D.=0.655) than female respondents (Mean=3.94 and S.D.=1.00) that banks should charge less interest rates from women on loan for women empowerment. ANOVA results show that there is no significant difference among the customers' viewpoint towards this regards at 5 percent level of significance (p = 0.08, df = 2, 45). Therefore, the null hypothesis (H01) is accepted. Rather Female respondents suggest Bank should provide more repayment period to women (Mean 4.09 and S.D.= 0.80) then Male respondents (Mean=3.67 and S.D. 1.23). ANOVA results show that there is a significant difference among the customers' viewpoint towards this regards at 5 percent level of significance (p = 0.04, df = 2, 45). Therefore, the null hypothesis is rejected and alternate hypothesis is accepted. Male respondents (Mean= 3.27 and Standard Deviation=1.28) suggest more than Female respondent (Mean= 3.21 and Standard Deviation = 1.31) that banks should introduce subsidy to women entrepreneurs for women empowerment. ANOVA results show that there is no significant difference among the customers' viewpoint towards this regards at 5 percent level of significance (p = 0.76, df = 2, 45). Therefore, Null hypothesis is accepted. Loans to women should be more easily available, Male respondents suggest (Mean= 3.73 and S.D.=1.10) than Female respondents (Mean= 3.63 and S.D.=1.10). ANOVA results show that there is no significant difference among the customers' viewpoint towards this regards at 5 percent level of significance (p = 0.79, df = 2, 45). Therefore, Null hypothesis is accepted

Factor of Education in perception about Women empowerment: As is obvious from Table 2 that graduate respondents (M=4.17, SD=0.75) are at number one place treating that banks should charge less interest rates on loan but M. Phil respondents (Mean 4.43 and S. D= 0.53) argue about long repayment period to women. Again, graduate respondents (Mean=4.17 and S.D.=are at 5 percent level of significance (p = 0.34, df = 2, 45). Therefore, the null hypothesis (H01) is accepted.

Age factor: It is lucid from Table 3 that age group 45 and above (Mean= 4.50 and S.D.=0.70) agree most than others that banks should charge less interest rates from women. ANOVA results show that there is no significant difference among the customers' viewpoint towards this at 5 percent

level of significance (p = 0.19, df = 2, 45).. Therefore, the null hypothesis (H01) is accepted. Age group 30-35 (Mean=4.14 and S.D.=1.06) as well as 35-40 (Mean=4.14 and S.D.=1.06) most agree than others about providing more repayment period for women empowerment. Age group 18-25 (Mean=3.71 and S.D.=0.76) agree most that subsidy should be provided by banks for women empowerment.

Occupation wise perception about role of banks in women empowerment: It is understandable from Table 4 that professional (Mean=4.29, S.D.=0.48) mostly favor about providing low interest rate in loan to the women. ANOVA results show that there is no significant difference among the customers' viewpoint towards women empowerment at 5 percent level of significance (p = 0.39, df = 2, 45). Therefore, the null hypothesis (H01) is accepted. Employee (Mean=4.29 and S.D.= 0.61) are in opinion of long repayment period to be provided to the women than occupation. ANOVA results show that there is no significant difference among the customers' viewpoint towards this at 5 percent level of significance (p = 0.13, df = 2, 45).

IV. Conclusion

To sum up, Graduate respondents are at number one place treating that banks should charge less interest rates on loan but M. Phil respondents argue about long repayment period to women. Age group 30-35 as well as 35-40 most favor than others about providing more repayment period for women empowerment. Age group 18-25 agrees most that subsidy should be provided by banks for women empowerment. Professional mostly favor about providing low interest rate in loan to the women. ANOVA results show that there is no significant difference among the customers' viewpoint towards women empowerment at 5 percent level of significance Therefore, the null hypothesis (H01) is accepted. Employees are in opinion of long repayment period to be provided to the women than respondents of other occupation. Banks can play an active role in women empowerment in India.

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Table 1: Perception of Gender about Role of Banks in Women Empowerment

Statement	Gender	N	Mean	Std. Deviation	Anova
Bank should charge less interest rates from women on loans	Female	33	3.94	1.00	0.08
	Male	15	4.00	.655	
Bank should provide more repayment period to women	Female	33	4.09	0.80	0.04*
	Male	15	3.67	1.23	
Banks should introduce subsidy /grant to women entrepreneurs	Female	33	3.21	1.31	0.76
	Male	15	3.27	1.28	
Loans to women should be more easily available	Female	33	3.64	1.14	0.79
	Male	15	3.73	1.10	

Source: Primary Survey. * Significant at 5 % level.

Table 2: Education wise perception about role of banks in women empowerment

Statements	Education	N	Mean	S.D.	p Value
Bank should charge less interest rates from women on loans	Under Graduate	6	3.33	.81	0.52
	Graduate	6	4.17	.75	
	Post Graduation	24	4.04	1.04	
	M.Phil	7	4.00	.57	
	PHD	5	4.00	1.00	
	Total	48	3.96	.92	
Bank should provide more repayment period to women for women empowerment	Under Graduate	6	3.83	.75	0.34
	Graduate	6	4.33	.51	
	Post Graduation	24	3.71	1.10	
	M.Phil	7	4.43	.53	
	PHD	5	4.20	.83	
	Total	48	3.96	.967	
Banks should introduce subsidy /grant to women for women empowerment	Under Graduate	6	3.67	.816	0.05*
	Graduate	6	4.17	.753	
	Post Graduation	24	3.29	1.301	
	M.Phil	7	2.57	1.718	
	PHD	5	2.20	.447	
	Total	48	3.23	1.292	
Loans to women should be more easily available for women empowerment	Under Graduate	6	3.83	.753	0.25
	Graduate	6	3.17	1.169	
	Post Graduation	24	3.88	1.076	
	M.Phil	7	3.86	.690	
	PHD	5	2.80	1.789	
	Total	48	3.67	1.117	

Source: Primary Survey. * Significant at 5 % level.

Table 3: Age wise perception towards Women Empowerment

Statements	Age Group	N	Mean	S.D.	p Value
Bank should charge less interest rates from women for women empowerment	18-25	7	3.43	0.78	
	25-30	16	4.19	0.75	
	30-35	14	3.71	1.139	
	35-40	7	4.43	0.78	0.19
	40-45	2	3.50	0.70	
	45 and above	2	4.50	0.70	
	Total	48	3.96	0.92	
Bank should provide more repayment period to women for women empowerment	18-25	7	3.86	0.69	
	25-30	16	3.88	1.20	
	30-35	14	4.14	0.66	
	35-40	7	4.14	1.06	0.88
	40-45	2	3.50	0.707	
	45 and above	2	3.50	2.12	
	Total	48	3.96	0.96	
Banks should introduce subsidy /grant to women for women empowerment	18-25	7	3.71	0.76	
	25-30	16	3.56	1.26	
	30-35	14	2.79	1.42	
	35-40	7	3.29	1.46	0.36
	40-45	2	3.00	1.41	
	45 and above	2	2.00	.000	
	Total	48	3.23	1.22	
Loans to women should be more easily available for women empowerment	18-25	7	3.57	.97	
	25-30	16	3.63	1.20	
	30-35	14	3.93	0.61	
	35-40	7	3.00	1.73	0.28
	40-45	2	3.50	0.70	
	45 and above	2	5.00	0.00	
	Total	48	3.67	1.117	

Table 4: Occupation wise perception about role of banks in women empowerment

Statements	Occupation	N	Mean	S.D.	p Value
Bank should charge less interest rates from women	Student	8	3.75	0.70	
	Employee	14	4.14	0.94	
	Business	12	4.00	0.73	
	Profession	7	4.29	0.48	0.39
	Homemaker(Housewife)	7	3.43	1.512	
	Total	48	3.96	0.92	
Bank should provide more repayment period to women	Student	8	4.13	0.83	
	Employee	14	4.29	0.61	
	Business	12	4.00	0.79	
	Profession	7	3.86	1.34	0.13
	Homemaker(Housewife)	7	3.14	1.34	
	Total	48	3.96	0.96	
Banks should introduce subsidy /grant to women	Student	8	3.00	1.44	
	Employee	14	3.50	1.44	
	Business	12	3.33	1.30	
	Profession	7	2.29	1.11	0.23
	Homemaker(Housewife)	7	3.71	0.48	
	Total	48	3.23	1.22	
Loans to women should be more easily available	Student	8	3.88	0.61	
	Employee	14	3.71	1.38	
	Business	12	3.50	1.34	
	Profession	7	3.43	0.96	0.90
	Homemaker(Housewife)	7	3.86	0.90	
	Total	48	3.67	1.11	

EXPLORATION OF MATERIALISM AND ATTITUDES TOWARD MONEY IN UNIVERSITY STUDENTS

Rimple Manchanda ★

The relationship between materialism and money attitudes of 169 university students was explored through Materialism Scale ofRichins and Dawson (1992) and Money Attitude Scale of Yamauchi and Templer (1982).The level of materialism and different dimensions of money attitude was checked. The data was analyzed to check the correlation between materialism and money attitude and their sub dimensions. The finding of the study revealed that materialism and all its sub-dimensions i.e. material success, material centralityand material happiness,were found to be positively correlated to power-prestigesub-dimension of money attitude. Material happiness sub-dimension of materialism was negatively related to retention time, distrust and anxiety sub-dimension of money attitude. The analysis puts forth the interesting facts that people who value material goods tend to use money to show off their power-prestige.

Keywords: Materialism, Money Attitude, University Students, Measurement, Relationship Analysis

Materialism and money attitude of a consumer are behavioural stimuli that structure one's spending decisions. This relationship between materialism and money attitude postulates the understanding of the mechanism of considerations andcognizance that isresponsible for the individual's purchase and consumption decisions.

The present research reconnoitered how materialism and its sub-dimensions are related to different attitudes toward money. This research will review the existing research on the construct of materialism and money attitude. Then it will review the relationship of materialism with various money related behaviors. It will extend the research by using north Indian universities sample to examine how materialistic values may be related to money attitudes.

I. Review of Literature

Materialism

The idea of materialism exists in the studies of psychology since old times. In philosophy it has different conceptualizations i.e. dialectical materialism; economic materialism; historical materialism etc. It has metaphysical inference and conjectural notion (Stalin & Stalin, 1940) and has been associated with reinforcement to consumer culture (Eastman, et. al., 1997; Kasser&Kanner, 2004). In contemporary research, materialism has been criticized and is associated with atheism and are supposed to be opponents of societal interests (Belk, 1983).

Materialists have been recognized as 'those who worship things and the pursuit of possessions' (Vedder, 1964); It has been defined as 'an orientation, which views material goods and money important for personal happiness and social progress' (Ward &Wackman, 1971); as, "an orientation emphasizing possessions and money for personal happiness and social progress." (Moschis& Churchill; 1978); as 'an importance an individual attaches to the worldly possessions... At the highest levels of materialism, such possessions assume a central place in the person's life and are believed to provide the greatest sources of satisfaction and dissatisfaction' (Belk, 1984) and "...an interest in getting and spending"(Rassuli& Hollander, 1986).Materialism is also described as desire for worldly possessions (Mukerji, 1983).

Money Attitude

Money is a gizmo for dominance parallel to the fundamental requirement of life (Goldberg & Lewis, 1978). The intentionsthatmotivateone's attitude towards money varies from endeavouring for prominence and supremacy to augmentingself-esteem (Lindgren, 1980).

The importance of money attitudes is comprehensible for understanding the outlooks and probabilities of individuals, which focuses on money and its uses. It helps in determining the financial dispositions of an individual (Taneja, 2012). Money attitude has been described 'as an impression of primary intentional that varies from being determined for eminence and command for augment sense of self.' (Lindgren, 1980); 'as multidimentinal concept' (Yamauchi and Templer, 1982); 'as individual's sensitivity towards money, when money acts as a sign of accomplishment and fascination' (Tang , 1988); 'as one's point of view and ideals in relation to money' (Prince, 1991) and 'as one's outlook, frame of mind or sentiments concerning money, its significance, utilization and supremacy' (Rutherford &DeVaney, 2009).

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Rationale of Study

Globalization has affected the society and culture immensely. The dynamics of social and economic scenario makes it mandatory to understand the indeterminate issues that shape economic decision-making capacity of people. People's decisions are dependent of their cognitive set up, behavioral pattern and motivational precedent. These day-to-day decisions are enthused by people's desire for material goods and willingness to spend.

Materialistic tendencies and one's inclination to spend are interrelated. Materialism affects the money attitude and the attitude towards money influence one's spending habits i.e. on what people like and want to spend. This is where the study of materialism, attitude towards money and their relationship becomes indispensable. Researchers have conducted the research on materialism and money attitude previously but there is no study conducted on Indian data set. The study is significant, as the Indian data sets of university students, used in this study, have experienced the maximum influence of globalization and are the most affected section of society. Thus this study fills the gap found in the literature, to understand the level of matreilasm, kind of money atitude and their interrelation.

Materialism and Money Attitude

The spending decision of an individual gets determined by the degree of interaction between money attitudes and materialism (Tatzel, 2002). This study is an effort to explore this interface of materialism and money temperament. The level of materialism affects the attitude of an individual towards money, which in turn influence the spending habits (Rimple. M, et. al., 2015). The previous research has found that the interaction between materialistic values and money attitude give rise to four different price-related behaviours of individuals i.e. value seeker, big-spender, non-spender or experiencer, which is but a classification based on the satisfaction one gets (Tatzel, 2002). The non-spender is one with tight money and less materialism and the big spender is the one with more money and more materialistic.

Research Objectives

1. To estimate the level of materialism and money attitude of university students.

2. To study the association between materialism and money attitude.

II. Research Design & Methods

The exploratory nature of the study explores the extent of materialism and nature of money attitude of university students. The descriptive research design was applied to understand the correlation between them.

The primary data was collected through self-administered questionnaire survey. The questionnaire was divided in three parts first part contained the materialism scale by Richins and Dawson (1992), the second part contained the money attitude scale by Yamauchi and Templer (1982) and the third part included questions to capture demographic information of the sample. Six point likert scale anchored from strongly disagree to strongly agree was used for measurement of materialism and money attitude.

The 400 questionnaires were distributed and out of them 169 were received back which were complete and were included for the analysis. The response rate was 42.25%.

The sample included 88 males and 81 females.

III. Results & Discussions

The table 1 below shows the level of materialism and sub-dimensions of materialism and money attitude. Descriptive statistics of these measures has been concise to give a defined depiction.

The current study reveals the mean and standard deviation of materialism and sub-dimensions of materialism and money attitude.

The mean value of material happiness was below the average of materialism and the lowest among all the sub-dimensions of materialism. The mean value of material centrality is the highest. This reveals that material goods take central place but does not bring much happiness. Material success mean value is the highest, which shows that for materialistic people, material things are sign of success. High score on material centrality reflects that material objects are central to their life. Material happiness reveals the predisposition of people to chase happiness in material things.

The current research reveals that the mean value of retention-time sub-dimension is the highest and that of power-prestige is the lowest. This shows that the people use money discreetly and consider retaining money for future. With excessive money retained in hands, people incline to be reasonably less anxious in matters related to money. These people also believe in their reflex while making conclusions concerning money. People

scored least mean value for power-prestige sub-dimension of money attitude, which illustrates that people infrequently use money to prove their authority.

The results show that material goods are used as a symbol of success and are the central requirement for the people but it does not bring happiness to them. Study of money attitude has revealed that people have consideration for saving. They have a strong belief in rewards of saving today for future and thus they retain money for future use. Money is least used as a symbol of power-prestige.

The table 2 below shows the association between materialism and sub-dimensions of materialism and money attitude.

As reinforced by the information in literature, on examining the correlation between materialism and sub-dimensions of money attitude, it was found that though there is significant and positive relationship between materialism and power-prestige sub-dimension of money attitude the materialistic people use money to boast for their supremacy and reputation in the society. The correlation of materialism with retention-time as well as with distrust was found to be very low and insignificant, which shows that materialistic people do not believe in holding money for future but spend on material goods. At the same time materialistic individuals tend to have apprehensiveness in matters related to money (Durvasula&Lysonski, 2010).

On investigation of relationship between sub-dimensions of materialism with sub-dimensions of money attitude, it was seen that the association amid material success and power-prestige is strongest of all. Materialist people who use material things as a symbol of success tend to put emphasis on money as a symbol of power-prestige. The relationship between material success and retention-time was, although statistically significant but very weak.

It was found that distrust sub-dimension was not statistically significantly related to any of the sub-dimension of materialism. This insignificant relationship between distrust and materialism is that materialistic people tend to trust people easily when they are buying. The sellers and their selling skills easily manipulate them. This reveals that materialistic people tend to get duped and they entrusts in matters related to money.

Anxiety sub-dimension of money attitude was found to be significantly associated with materialism and all its sub-dimensions except material happiness. This shows that materialistic people tend to get anxious easily. Materialistic people apprehensively use material goods to show off

their material success and impatiently demonstrate them as central to their life. But at the same time they do not excitedly use material goods for happiness. Materialistic people do not experience apprehension when they spend money for their happiness. Spending money on goods for material happiness is not inconvenient to them.

Material happiness and retention-time were found to be significantly negatively related. It shows that materialistic people tend to spend more and save less. Individuals who do not save money for future are the one's who give importance to material things and consider them as a source of happiness. They want to spend money on material goods for their material satisfaction now and are incapable to foresee any impending circumstances for which they would want to save.

IV. Conclusion

The study of relationship between materialism and money attitude revealed various behavioral aspects of university students. The current research has identified the level of materialism and money attitude with the help of existing measured taken from literature. It has attempted to study the relationship between them in order to understand the economic behavior.

Materialistic person weigh material things over and above non-material things like emotions and relationships. The sample exhibited low level of materialism. It depicted the largely positive picture about university students that they are less materialistic. University students scored high on material centrality sub-dimension and lowest on material happiness sub-dimension of materialism (Manchanda, 2016). It shows that university students use material things to boast their personality rather than to get happiness.

The sample scored highest on retention-time sub-dimension and lowest on power-prestige sub-dimension of money attitude as they considered saving money for future time use rather than for displaying their power and prestige.

Correlation analysis shows the positive correlation between materialism and money attitude, which revealed the value purpose of money medium for owning material things.

The research elucidates the implication for financial professionals, marketing professionals, academicians, policy makers and researchers. For financial and marketing professionals, it highlights the surreptitious behavior of people, which can help them in strategizing their vending practices. The academicians can use the findings

to understand and addendum to the theory on consumer behavior. They can help in devising ways for development of positive attitude towards money. The research contributes explicitly in the field of behavioral studies. The policy makers can contribute by manipulating the consumer behavior away from materialism. The finding of the study would be useful for researchers for further exploration and study of consumer behaviour and augmenting it on right track. The study has contribution in various academic fields such as marketing management, psychology and economics. The study suggests the advancement of research in identifying the factors that lead to development of materialistic behaviour and attitude towards money. It also makes contribution in making important and predetermined valuations of economic circumstances. It helps financial professionals in determining and planning the finances for different category of people. It will help in supporting and strengthening the positive money attitudes.

The future research can be done to identify the factors that determine the materialism and money attitude of university students. The study can be carried out on different categories of samples, as this one was limited to university students only. The comparative study based on gender and age groups can be carried out to understand and comprehend the important undercurrents relating to gender differenceand difference found among age groups in light. The study can be further expanded for determination of causal relationship between variables and their sub-dimensions. Future research can be carried out for identifying factors that lead to money attitude development in emerging economies like India.

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Table 1: Descriptive Statistics

Variables & Sub-Dimensions (N=169)		Mean (SD)
Materialism	Material Success	3.53 (1.25)
	Material Centrality	3.57 (1.30)
	Material Happiness	2.80 (0.90)
	Materialism	3.30 (1.10)
Money Attitude	Power-prestige	2.96 (1.10)
	Retention Time	4.15 (0.97)
	Distrust	3.48 (0.79)
	Anxiety	3.49 (0.90)

Table 2: Correlation between Sub-dimensions of Materialism and Money Attitude Scale

	Power-prestige	Retention-time	Distrust	Anxiety
Material Success	.485**	.086*	0.032	.121**
Material Centrality	.451**	.092*	0.073	.122**
Material Happiness	.309**	-.184**	-0.065	-0.012
Materialism	.502**	0.018	0.025	.100**
*Correlation is significant at the 0.05 level (2-tailed).				
** Correlation is significant at the 0.01 level (2-tailed).				

IMPACT OF LEADERSHIP STYLES ON TEACHER EFFECTIVENESS

Suvarchala Rani★   U. Devi Prasad ★ ★

The teacher, in the educational system, has a pivotal role in instilling knowledge and skills in students which empowers them in having a bright future in career as well as life. The teacher also performs various activities such as information processing, engaging in interpersonal relations and decision making which will have an impact on the image of the institution. This makes the effectiveness of teachers crucial, both for the students as well as the institution. In this context, the leadership styles of teachers, involving planning, organising, directing and controlling functions, gains significance in order to develop a conducive learning environment for the students and in the institution. The present study is intended to find out the relationship between teachers' leadership styles and effectiveness of teachers in select higher educational institutions in Hyderabad, Telangana State, India. It is based on primary data collected from a random sample of teachers. Valid and tested structured questionnaire, comprising components of both Leadership Styles and Effectiveness of teachers, has been applied for the study. Statistical analysis of the collected primary data was carried out using the SPSS, version 20. The tools used include factor analysis, and hierarchical regression analysis to investigate the teacher effectiveness on the basis of the leadership style and to examine whether the 'age' variable moderates the relationship between these factors. The results showed that the leadership styles such as visionary, coaching and affiliative styles had a significant relationship with the teacher effectiveness. The study showed that teacher's pacesetting leadership style has no significant effect on teacher effectiveness. It also indicated that age of the teachers moderates the relationship between pacesetting leadership style and teacher effectiveness, such that pacesetting leadership style is negatively related to teacher effectiveness. This study is considered to contribute towards improving the effectiveness of teachers based on their leadership styles.

Leaders are the individuals who unlock the potential of the followers, increase the informed choices and inspire and influence the followers. Teachers as employees of an institution play an important role of molding the next generation learners. In order to incorporate learning, a teacher has to perform numerous roles, and a very important role being a leader. Leadership role of a teacher is not just about power and status but trying to use leadership to strengthen student performance. Teacher leadership is defined as a process by which a teacher connects the self's goals with the goals of the education of the students. Teachers in the classroom exhibit important skills, values, and dispositions. The leadership styles of the teacher would enhance the teaching and learning process.

Effective leadership in the classroom depends on a healthy and transparent interpersonal relationship between the teachers and the students. In such relationships, the students tend to feel close to their teacher, and value him or her with trust. Great teachers possess qualities of leadership that are appreciated by the students, their parents, peers and the society. They can also accomplish important tasks as teachers, for the people they come into contact with.

The teachers may have different leadership styles depending upon their vision, type of coaching, creating affiliation and pacesetting of standards. In the visionary style, the teacher may visualise the goals of the students, and help them to experiment, innovate and be creative in achieving them. In the coaching style, the teacher focuses on improving the students' performance by one to one interaction and this is suitable when the students show initiative for their overall academic development. Affiliative style of leadership emphasizes the importance of team work, and creates harmony among students by connecting them to each other. This style is particularly valuable when the teacher wants to improve students' morale and increase group harmony. In the pacesetting style, the teacher sets high standards for performance and is obsessive about doing things effectively and faster, and asks the same of everyone.

Teacher effectiveness refers to the outcomes a teacher gets and the progress the student makes towards a specific

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goal with regard to his education. Teaching as a profession demands the teacher to display leadership qualities to influence the students. The study is considered to aid the teachers and organizations in enhancing their performance, through organizing various programmes for leadership development. To evaluate the teacher effectiveness in terms of characteristics such as personality, attitudes, process as teacher-pupil interaction etc., outcomes of teaching-learning process, and planning and preparation for teaching, five areas are used viz. Classroom Management, Knowledge of Subject matter, its delivery and presentation, Interpersonal Relations and Teacher Characteristics. These areas cover primarily all the functions of a teacher.

A review of the literature on the subject of leadership styles and the related attributes has revealed that only very few studies have been conducted on leadership styles of teachers in India, particularly at higher education level. Further, higher education needs development of requisite leadership skills in teachers with a regular upgradation in the context of the changing dynamics in this field. More so, the studies on leadership styles and its relation to the effectiveness of teachers are limited.

Keeping theses research gaps in view, the present study focuses on leadership styles and its impact on the teacher effectiveness, and is taken up in the field of higher education. The study undertaken has statistical validity in terms of sample size and the tools used for analysis of the data. The scope of the study is confined to teachers of higher education in Hyderabad in Telangana State, India.

I. Review of Literature

In the present scenario where various measures are taken for educating the primary right of every citizen i.e. the "Right to literacy", it is important to study on the effectiveness of teachers who mold the younger generation of the country into responsible citizens and respectable individuals of the country. The service they contribute to the society is highly appreciable, but there is an urgency or the need to define the characteristics which help to motivate, inspire, cultivate thinking abilities and indulge the students into the subject.

Teacher's productivity may be measured in terms of teacher's performance (Schacter and Thum, 2004). The teacher's productivity may be evaluated in terms of what the teacher controls and actually does in class room such as teaching effectiveness and class room performance (Wenlisky, 2001). Leadership is one such characteristic a teacher should possess to influence the students to attain

their goals, as the success or the failure of a student highly depends upon the influence and leadership style of the teacher (Okafor, 1991).

Leadership is one of the oldest known preoccupations in the world, where it portrays the ability to accomplish the tasks with assistance and cooperation of other people within the system (Omolayo, 2000) and a prescriptive which embraces the morals (Burn J. M., 2003). Leadership has various styles, where the leader incorporates different styles with reference to the situation and meets organizational goals (Ukeje, 1991). Studying the style of leadership is important as it plays a significant role in an institution's success, and the achievement of educational goals (Subramaniam, 2011). Teachers who incorporate various leadership styles tend to influence the students of different criteria which affect the job performance (Davis, 2003), and has a positive effect on the lifelong professional development of the teachers (Flores, 2007). The students also strive willingly and enthusiastically towards the accomplishment of goals and objectives (Ezenwa, 2005). The more the indulgence of teachers in completing their task, the higher is the impact of perseverance of achieving their goals through their efforts (Davis and Wilson, 2003). Teacher's high morale has positive effects on student's attitude and learning (Lumsden, 2008), where the main task to accomplish is to create an environment which is conducive for teachers to achieve the desired changes in the learning of the students (Ibukin, 1997). A leader who specifies the aims of the institution and organizes various instructional programmes to achieve the goals promotes learning by constructing the appropriate climate (Hallinger, 2007). Clark (1997) defines that, if an individual is a teacher-leader who can be trusted, then people will give respect to him. To be a teacher leader as such, there should be a leadership framework to be kept in mind.

If a teacher tries to be all-pervasive as a leader, then the results get diluted. Such a teacher may be irrelevant despite physical presence, with his efforts being dismal to influence the circumstances (Atchison and Hill, 1987). Such a leader is mostly characterized by indecision and indifference. The leader should have a clear vision of organizational goals and facilitate development of policies or programmes. He should allow complete freedom to the group and individual members to do as they would like to. This type of leadership style gives the focus and direction. Otherwise, the teacher is always held up in a dilemma when situation demands and crucial decisions crop up (Brawn, 1989).

Fred (2001) has stated that in the democratic system, the students should surely be involved in any efforts aimed

at the issue of finding solution to the problems and also planning the classroom of the organization. The leader with this style makes easy flow of information to dispel and provide the avenue of steady feedback mechanism. Vain (2000) has emphasized that a democratic leader not only normally takes arbitrary orders but also decisions as he regards the subject as partner in progress. Such a leader is always mindful and sensitive to the needs and also the welfare of the staff and always strives to motivate them. A teacher with democratic style of leadership provides guidance in decision making, especially when the decision is affecting his class, by giving paramount attention to the feelings by sharing the information, and creating a pleasant working relation in the classroom. Kojo (2001) opines that, in relation to the management of conflicts and resolution of that conflict, the democratic leader would usually employ wide consultation, persuasion, and dialogue for achieving a stable and ensuring tranquility. At most of the times, the democratic leader makes his advice and suggestion available to his class.

Some studies relate to the impact of leadership styles on teacher's performance and effectiveness. The effectiveness of a leadership style depends mostly on the situation in which the leader tries to match his/her leadership style with the task of followers (Hersey, Blanchard, and Johnson, 2001). Leadership is often viewed as one of the important predictors and plays a central role. The teacher must make use of inclusive kind of leadership style where the teacher will involve other people as a team. As this team gets the steady opportunity to contribute to the culture, vision and climate of the school, a teacher will have the responsibility to create opportunities to make this happen and thus partly determines the leadership styles (Mutula, 2006).

The democratic (participative) leadership style and teachers' job satisfaction are examined in some studies. Democratic style of leadership is one in which the leader uses one or more employees in the decision making process and is consultative in nature. This style decentralizes the power and authority (Okumbe, 1998). Ingersoll (2001) opined that teachers were more contented when they were made a part of the school decision-making and when they had control over their classrooms. Iqbal (2010) revealed that teachers working under a democratic style of leadership were more satisfied than teachers working under other styles of leadership. Omeke and Onah (2011) established that democratic leadership style exerts positive influence on teachers' job satisfaction. Employees are satisfied with democratic leadership because their suggestions, opinions and comments are needed for decision-making (Obi,

2003). Nsubuga (2008) revealed that schools mostly use the democratic style of leadership. The Head of the school uses the democratic leadership style to build respect, trust and commitment because this style allows people to have their importance in decisions that affect their goals and how they do their work. Mutuku (2005) noted that a democratic system is an integrated approach to management. Nakola (2011) established that Principals who were perceived to be exhibiting democratic style had a considerably highly motivated staff as they consulted with them on the proposed actions, decision and encouraged participation from them.

II. Research Design & Methods

Objectives

The objectives of the study have been set as:

(a) To examine the various leadership styles exhibited by the teachers;

(b) to identify the factors concerning effectiveness of the teachers selected; and

(c) To find out the relationship between the effectiveness of the teachers and their leadership styles.

Hypotheses

The null hypotheses have been formulated, keeping in view the objectives of the study, as follows:

H01:Visionary leadership style has no significant relationship with teacher effectiveness.

H02:Coaching leadership style has no significant relationship with teacher effectiveness.

H03:Affiliative leadership style has no significant relationship with teacher effectiveness.

H04:Pacesetting leadership style has no significant relationship with teacher effectiveness.

H05: Age of the teachers moderates the relationship between pacesetting leadership style and teacher effectiveness, such that pacesetting leadership style is negatively related to teacher effectiveness.

Sample Size

For the study, a random sample of 92 higher education teachers (teaching both Post-graduate and Under-graduate courses), working in higher educational institutions located in Hyderabad, Telangana State, India, were approached.

Response Rate

When it was attempted to approach the sample of 100 teachers selected for the study, some were not available,

and some could not spare time to respond to the survey. Thus, responses were received from 62 teachers which constituted the final sample for the study, and the response rate turned out to be 67.4 per cent.

Data Collection

A structured questionnaire was administered for collection of primary data from the respondents personally. The questionnaire was initially used on pilot basis, and based upon the feedback received in terms of clarifications sought, the questionnaire was redrafted and used on the final sample of 62 respondents.

Data analysis

Statistical analysis of the collected primary data was carried out using the SPSS, version 20. Statistical tools such as factor analysis and regression analysis have been used, as relevant. Responses to the items measuring leadership style and teacher effectiveness were factor analysed, and factor scores obtained were used for ensuring data analysis. For all factor analyses, principal axes method of factor extraction is used with varimax rotation. Regression analyses were used to examine the extent to which respondents' (teachers') effectiveness can be predicted from the leadership style variable. Regression analysis was also used to scrutinize the influence of demographic variables (age and gender) on teacher effectiveness. The moderating effect of the age on pacesetting leadership style was also examined by including interactions with age in the regression equation.

III. Results & Discussion

The responses from the sample of teachers have been obtained using mostly the Likert scale with labels. For analysing the data, its reliability needs to be tested for internal consistency. This is done using Cronbach's alpha which is found to be 0.852. This value, being above 0.7, is acceptable (Nunnally, 1978) confirms that the data have internal consistency.

Of the total sample of 62 from Table 1, it is observed that 18 (28.6%) constitute male members while the rest of 44 (71.4%) comprise female teachers. The reason for the predominance of female teachers in number could indicate the entry of women in large number into teaching profession. From the sampling point of view, the number of male teachers in the study, in absolute terms, is considered as adequate, though proportionately the females are more in the sample. Regarding age, the distribution of the teachers is relatively skewed towards the younger group

with 16 (25.4%) in the age group of below 30 years, and 17 (27.0%) in the age group of 30-39 years. The modal age group is 40-49 years with 19 (31.7%) members belonging therein. A small number of 10 teachers (15.9%) are in the age group of 50 years and above. Majority of the teachers are relatively young, and the reason for this could be that the institutions have confidence in them as to their potential effectiveness.

There are 29 characteristics in the study which have a bearing on the leadership styles of the teachers. The analysis of data would be amenable if they could be reduced into a smaller number of associated factors, for which exploratory factor analysis (EFA) method is used. In order to validate the usage of factor analysis, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is calculated. The calculated value of the same is found to be 0.752 which is greater than 0.5, indicating that the variables display multivariate normality.

Factor analysis of the leadership styles items yielded four factors that were readily interpreted in terms of the original subscales, that measure a visionary, coaching, an affiliative and pacesetting leadership style.

Based on the factor loadings, the underlying factor structure has been identified as shown in Table 2. All the seven items with their major loading on the first factor were derived from the subscale measuring a visionary leadership style (which explained 35.97 percent of variance).

The second factor is most strongly defined by seven items derived from the coaching leadership subscale (which displayed 15.48 percent of variance). The third factor was mainly defined by seven items indicating affiliative leadership style (which showed 12.41 percent of variance). The fourth factor was mostly defined by eight items with their major loading measuring the pacesetting leadership subscale (which explained 10.62 percent of variance). The total variance that has been explained by the factors is found to be strong being 74.48 percent.

Since there are different types of leadership styles, factor scores derived from the analysis were labelled as visionary leadership style, coaching leadership style, affiliative leadership style and pacesetting leadership style. The nature of leadership would have a differing influence on the effectiveness of a teacher. Hence, the factor scores obtained from the single-factor solution were used to assess the single variable i.e. teacher effectiveness. The effectiveness of teachers may depend upon their demographic background (gender and age) also. To predict the teacher effectiveness, based on these influencing

variables, hierarchical regression analysis is used. In this context, 'age' is taken as a moderating variable, as the sample has a majority of relatively young teachers.

The relationships of the independent variables with teacher effectiveness were analysed using a two-step hierarchical linear regression. The first step included age as a demographic variable and the measures of leadership styles were entered on the subsequent step to determine whether they contribute significantly in explaining teacher's effectiveness. Table 3 shows the hierarchical regression for the prediction of teacher effectiveness. In the first step (Model 1), the respondents' demographic variables were entered. The adjusted R2 value is found to be 0.62 and the p-value was found to be close to 0.05. In the second step (Model 2), the visionary leadership variable was entered and the adjusted R2 value has significantly increased to 0.85 and the p-value was found to be less than 0.05. In the third step (Model 3), the coaching leadership style variable was entered and it produced a statistically significant increase in the adjusted R2 value to 0.88 and p-value was found to be less than 0.01. In the next step (Model 4), affiliative leadership style variable was entered wherein the adjusted R2 value increased further to 0.9 and p-value was found to be less than 0.01. In the fifth step (Model 5) pacesetting variable was added to the equation and the adjusted R2 value has increased to 0.91, and even though there is a negative relationship (coefficient value) between the teacher's pacesetting leadership style and the teacher effectiveness, the p-value was found to be greater than 0.05. Finally (Model 6), the adjusted R2 value has increased to 0.92 and the p-value was found to be less than 0.05. Thus, Model 6 gives the best results and the model is also statistically significant.

The results show that the three leadership styles viz., visionary, coaching and affiliative styles had a significant relationship with the teacher effectiveness. The teachers' pacesetting leadership style is found to have no significant effect on teacher effectiveness. The study also indicated that age of the teachers moderates the relationship between pacesetting leadership style and teacher effectiveness, such that pacesetting leadership styles is negatively related to teacher effectiveness. The reason for the differing effectiveness of teachers could be thus attributable to the nature of leadership style, besides the influence of the demographic factor of age.

Regarding age, the distribution of the teachers is relatively skewed towards the younger group with 16 (25.4%) in the age group of below 30 years, and 17 (27.0%) in the age group of 30-39 years. The modal age group is 40-49 years with 19 (31.7%) members belonging therein. A small number of 10 teachers (15.9%) are in the age group of 50 years and above.

The results indicate that there is a significant relationship between visionary leadership style and teacher effectiveness and hence H01 is rejected. The teacher, by creating an environment involving the students to experiment, innovate and be creative, would definitely increase his/her effectiveness in the areas of Preparation and planning for teaching, Classroom management, Knowledge of subject matter and their Interpersonal relations.

The results also show that H02 is rejected where coaching leadership style of a teacher has a significant relationship with the teacher effectiveness. Here the teacher focuses on improving the student's performance by providing individual assistance and the student's interest for his overall academic development. And this style of the leadership style shows an increase in teacher's effectiveness.

It is observed that H03 is rejected since affiliative style of a teacher increases teacher effectiveness wherein the teacher emphasizes the importance of team work, and creates harmony among students by connecting them to each other, thereby increasing the morale of the students.

The results show that H04 is not rejected i.e. there is no significant relationship between teacher's pacesetting leadership style and the teacher effectiveness. However, a moderator variable of 'age interaction' with the 'pacesetting leadership' variable showed a significant relationship with the teacher's effectiveness.

Teacher's age and the pacesetting style have an interaction effect on the effectiveness of the teacher. A teacher who is very obsessive about tasks and sets very high standards and wants the same from the students would have a decrease in effectiveness. There would be reduced interpersonal relationships and class management. Thus, a teacher' age would influence the pacesetting style and its impact would be visible on teacher effectiveness. The results revealed no significant difference in the effects of gender on teacher effectiveness. It showed that there is an evident relationship between the effectiveness of teachers and their age.

The results illustrate that H05 is rejected and age moderated the relationship between pacesetting leadership style and teacher effectiveness, such that as the age of teacher increases, the pacesetting style of the leader increases wherein the teacher is more obsessive of work and targets and wants the students to feel the same and hence the effectiveness of the teacher reduces.

Managerial Implications

This study has significant managerial implications. From a practical point of view, the findings provide an understanding of the importance of the leadership qualities in a teacher and how they can be encouraged and nurtured for enhancing the effectiveness of teachers and students in totality, as also that of the institution at large. The variation in the demographic factors such as age and gender of teachers can be utilised effectively such that the younger teachers can learn from the experience of the older ones, and the latter can be more active being enthused by the energetic attitude of the former. This will also have positive effects on the decision making abilities of the teachers. The institutions may conduct various leadership development programmes in order to enhance the leadership skills of the teachers to make them more successful in their profession. This will have a far reaching influence on the students in kindling their self actualisation goals.

IV. Conclusion

This study has investigated the effect of teacher's leadership styles on teacher effectiveness in Hyderabad, Telangana State, India. The results of this study revealed that there is a strong link between the leadership styles of the teachers in the class room and their effectiveness.

This study confirms that teachers' leadership styles are an important determinant of their effectiveness. It demonstrates that demographic factors can produce statistically significant moderating effects on the impact of certain leadership variables on teacher effectiveness.

Limitations - Even though this study makes some contributions, it has a few limitations. The present research was confined to Hyderabad, Telangana State, India. The sample selected covers different domain areas relating to higher educational institutions only.

Scope for Future Research - Future research may cover the entire Telangana State. More studies can be conducted based on the domains of the teachers and their effectiveness. A comparative analysis of private and public sector educational institutions can be attempted. A longitudinal study could be done. Further aspects of studies could also be based on various conditions such as the type of the institutions and management support.

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Table1: Demographic Factors - Frequency distribution

Variable	Category	Frequency	Percent
Gender	Male	18	28.6
	Female	44	71.4
	Total	62	100.0
Age (years)	<30	16	25.4
	30-39	17	27.0
	40-40	19	31.7
	50 and Above	10	15.9
	Total	62	100.0

Table 2: Identification of Factors

Factors	Items (Variables)	Factor Loadings	Eigen value	Variance explained (%)
Visionary	Facilitates the communication of a clear vision of how things can be.	0.775	4.94	35.97
	Takes opinions on student's perspectives on the vision.	0.715		
	Views vending the vision as part of the teacher's job.	0.695		
	Influences students by explaining, exploring and describing the vision	0.673		
	Ensures that students align the vision with their tasks and objectives.	0.639		
	Uses both positive and negative methods to enhance other's motivation and performance.	0.605		
	Encourages students to be highly innovative and risk taking	0.554		
Coaching	Establish academic and personal development goals for the students	0.853	2.758	15.48
	Helps students identify their strengths and weaknesses in the light of their aspirations.	0.798		
	Reaches consensus with students on clarity of both teacher's and student's role in the development process.	0.729		
	Provides on-going support, challenge and feedback.	0.709		
	Focus on long term development and trade-off short-term performance.	0.694		
	Share challenging assignments for development purposes.	0.687		
	Students are motivated to take initiative.	0.617		
Affiliative	Places more emphasis on the students than the task in hand.	0.826	1.917	12.41
	Cares for the person as a whole.	0.784		
	Rewards personal characteristics and behaviours as much as the delivery of the task.	0.758		
	Creating harmony among diverse student groups	0.732		
	Sympathise and empathise with students.	0.697		
	Encourage trust and loyalty.	0.653		
	Motivates individuals by supporting them during stressful times	0.545		
Pacesetting	Asks students to perform their tasks at a high standard	0.812	1.28	10.62
	Expect students to perform them at a faster pace.	0.798		
	Provides less direction to the students.	0.774		
	Seeks co-ordination with others only if it has an impact on an immediate task.	0.756		
	Pinpoints poor performers and demands more from them.	0.711		
	No sympathy for poor performers.	0.696		
	Emphasise more on results.	0.633		
	Insist on excellence and doesn't accept mediocrity.	0.588		
Total Variance Explained				74.48

Table 3: Hierarchical regression analyses: Effects of demographic factors and leadership style on Teacher Effectiveness

Variable	Teacher Effectiveness					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Gender	0.01	0.05	0.06	0.04	0.05	0.07
Age	*-0.1	*-0.02	*-0.01	*-0.04	*-0.06	*-0.07
Visionary		*0.6	*0.5	*0.28	*0.41	*0.4
Coaching			**0.4	**0.23	**0.24	**0.22
Affiliative				**0.42	**0.39	**0.4
Pacesetting					-0.06	-0.08
Age*Pacesetting						*-0.4
R^2	0.62	0.85	0.88	0.9	0.91	0.92
Change in R^2	-	0. 35	0.03	0.02	0.01	0.01

*p<0.05, **p<0.01

EMPOWERING WOMEN OF INDIA WITH MICRO-FINANCE: A CASE STUDY OF DELHI REGION

Ruhee Mittal★   Miklesh Yadav★★   Surbhi Gupta★★★

Empowerment of women is considered as a very important issue for an emerging economy like India. As women form an integral part of our society, their participation in economic activities and decision making activities till date is very low. Over the years, Government and Non-Government agencies have made various efforts to improve the socio-economic status of women in India. One such tool for empowering women is Microfinance. Microfinance is treated as a banking service that is provided to the unemployed, low-income individuals or groups who would otherwise have no other means of gaining financial services. Micro finance in association with Self Help Group (SHG) has been recognized internationally as the modern tool to combat poverty thereby leading to women empowerment. This paper focuses on the role played by microfinance in empowering women of India in the capital Delhi. The main objective of the study is to analyze the impact of micro financing through SHG's on social and economic status of women in Delhi. A structured questionnaire was designed for the purpose of the survey. The researchers have used Structural equation Model to analyze the data collected through survey. The findings of the study show that micro-finance plays an important role in improving the socio-economic status of women in India. Through micro financing they have become independent, confident and courageous. In addition to this they have developed certain skills which have helped them in earning money, but women wanted some more NGOs should come forward and provide them training sessions for their skill development which will help them in income generating activities.

Keywords: Micro finance, Women empowerment, Self-help groups, India, Delhi

The gender inequality existing in the demographic composition of any country is depicted by the socio - economic status of the female population, their literacy rate, poverty, employment opportunity, life expectancy etc. India is hollowed to appreciate the fruits of Demographic Dividend in the years to come. But, this asset has to be very sensibly tackled. There are a large number of stumbling blocks on the way. India has to take care of certain fronts like gender equity and gender empowerment. A country where the female population accounts for 48.46 percent of the total population,it cannot afford to neglect the issues related to gender inequity and gender empowerment. Gender discrimination is a persistent problem faced by women all over the world, which has led to the need to empower women for uplifting their status as recognized by Millennium Development Goals (2010). Harmonious growth and all round of development is impossible if women are not considered as equal partners in progress with men. Women empowerment is imperative to harness the women labor in the economic development. It is a multi-dimensional approach which covers economic, political, social and personal aspects. In developing country like India, women's empowerment is of great importance where 21.9% (According to United Nation's Millennium Development Goal (MGD)) of the people are living under poverty line and 61.5 percent of women are poor and of whom almost 49 per cent can be considered both economically and socially poor. According to the World Economic Forum 2014, India ranked 114th among 142 countries on the Human Development Index (HDI) in gender equality. In male dominated society, female faces discrimination in their family, social, economic and political life. Apart from that, traditional duties of managing households create hindrances in their social and economic empowerment. Therefore, various mechanisms were used by much Government and Non-Government organizations to promote women empowerment in rural and urban areas and one such mechanism is the microfinance intervention (Meenu et al., 2011).

Microfinance is the defined as providing financial services to the low-income individuals, including the self-employed and individuals who are unable to access the banking and its related services. It is termed as a novel approach of providing investment and saving facility to the poor population living around the world. Its aim is to provide to banking services such as credit, savings, and insurance to low income individuals which falljust above and below the poverty line. In the Indian context, small and marginal

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farmers, rural artisans and economically weaker sections are microfinance customers.

Broadly speaking, it visualizes the world wherein low income group of people have permanent access of high quality of financial services to provide finance for income producing, create assets and protection against unforeseeable risks. It is treated as a mechanism for socio economic upliftment in a developing country like India.

In an emerging economy like India, microfinance services are provided by two agencies or models, one is Self Help Group Bank Linkage Model and other is Microfinance institutions. They are having more than seven crore clients together. The micro credit programme was developed in 1992 formally as a pilot project linking Self Help Groups that has made tremendous strides in India presenting a considerable amount of democratic functioning and group dynamisms.

As, in India the concept of micro financing is dominated by Self-help groups and their linkage with the banks. Therefore, the present paper attempts to study the role of micro-financing in empowering women living in the urban India i.e. capital Delhi. In this paper a well-structured questionnaire has been used for the purpose of data collection. This questionnaire has been filled by only those women who are availing the microcredit facility by any bank. The rest of the paper is divided into four sections. In Section I , the review of literature has been presented. Section II explains the research methodology used for the purpose of research. Section III presents the data analysis, interpretation and main findings of the empirical analysis. Finally, Section IV gives a brief account of the conclusions, limitations and future scope of research.

I. Review of Literature

The present review makes an attempt to study the sociocultural determinants, economic determinants and other essential aspects of women empowerment which are depicted in the past studies, conducted in the various parts of the world.

Microfinance and its importance - The term microfinance (MF) refers to the "offer of financial services to customers with low income levels" Nadar (2008). This definition implies that, the aim of micro financing is to target people of low income category who don't have the access to the formal lending system. Thereafter, researches conducted on MF have proved that it act as an important tool for boosting the economic growth, in reducing the effects of economic instability and in the empowerment of women.

In the recent past these MF programmes have become one of the promising ways to use the scarce funds to achieve the objectives of poverty alleviation. Furthermore, with these MFs institutions the poor are able to access the financial services, which previously were exclusively available tothe upper and middle-income population. Finally, MF become one of the most effective tools for empowermentof the poor, especially in comparison to other development initiatives, whichoften treat these specific target group members as recipients (Bhuvan, 2007 and Gundappa, 2014).

Empowerment - The concept of empowerment has always been debated and different definitions and opinions has been given by various experts regarding it. Wallerstein (1992), Batliwala (1994), Rowlands (1997), Chambers (1997), Page and Czuba (1999) and Kabeer (2001) defines empowerment as the development process that allows individuals to gain knowledge, power, skill-sets and attitude needed to cope with the changing world and the circumstances in which one lives. Empowerment helps the person concerned to exploit the economic environment in increasing the productivity of self, family and the society on the whole.

Women Empowerment - Longwe and Clarke (1994), Pillai (1995), Stromquist (1995) Kabeer (1999) defined women's empowerment as multidimensional process which enables women to realize their full identity and powers in all spheres of life. It encompasses the ability to make strategic choices, control resources and take decisions regarding important aspects of their life. (Swain, 2007).

Microfinance and Women Empowerment - Microfinance has proven to be an efficient and famous measure in the ongoing struggle against poverty as well as for women empowerment. It has been used as influential in different community development activities, as entry point in the community-organizing programme and as an ingredient in a larger education or training exercise. The provision of adequate amount of support through microfinance in time to the women folk for their personal, business purposes and familial by agencies would build confidence and zeal and zest among women for the performance of their activities. It encourages the poor women for entrepreneurship with the help of availability of small amount of loans and other financial products. Out of many form of microfinance, Small Help Groups (SHG) has been more suitable for them to empower the women.Malhotra, et al. (2002) gave an excellent review of various studies on empowerment. They constructed a list most commonly used dimensions of women's empowerment, on the basis

of the frameworks given by various authors in different fields of social sciences. These frameworks suggest that women's empowerment needs to occur along multiple dimensions including: economicsocio-cultural, familial/ interpersonal, legal, political, and psychological.

There are numerous studies which have shown that women may be empowered in one area of life while not in others (Malhotra and Mather 1997; Kishor 2000b; Hashemi et al. 1996; Beegle et al. 1998). Hashemi et al (1996) gave eight indicators of empowerment: mobility, economic security, ability to make small purchases, ability to make larger purchases, involvement in major decisions, relative freedom from domination by the family, political and legal awareness, and involvement in political campaigning and protests. Lekshmi (2000) found that Self Help Group can be treated as one of the tools for poverty reduction. Sundari and Geetha (2000) stated that empowerment of poor rural women will be possible if they will be trained and imparted skills for self- employment. According to them, skill training for women includes enterprise development, new approach to markets and social, political and increased access to credit.

Further, Dadhich (2001) in his study analyzed the performance of SHGs formed by oriental Bank of micro lending and found that they can play an important role in empowering women but they suggested that viable economic and financial policy should be designed for the same. Sinha (2004) said that understanding the viability of microfinance needs a detail analysis from the cohesive perspective. It can contribute towards solving the problem of inadequate housing and urban services. Mohamed (2004) statedthat discrimination against women must be the top priority which would improve the social and economic status of women.

Soundarapandian (2006) analyzed the growth of SHGs and the role of microfinance in developing the rural entrepreneurship andsuggested that though there is a positive growth rate of SHGs in states but in terms of number of SHGs, there is a wide difference among states that is why linkages of banks with SHGs is found impossible for this variations.

More (2008) found through his study that women are efficient in rural areas but they are busy on household only, some of them are doing full work, looking after the cattle and cleaning. It was concluded that the level of women must be upgraded by providing timely microcreditfacilities. Koul and Moha (2009) studied that the SHGs helped the rural womenfolk in improving their socio-economic status

as well as status of their awareness and self-dependency.

Kumari (2010) analyzed the relationship between availability of microfinance and women empowerment. The main finding of the research was that microfinance institutions and SHGs are new means to empowering women and poverty alleviation.

Devaraja (2011) has described the evolution of the Microfinance revolution in India. Kulkarni and Sonawane (2011)concluded that micro finance is not possible for the poor people rather it would be easier through SHG movement that links women empowerment and improves the socio economic status of the poor.

Vijay Kumar (2011) studied the role of SHGs in women empowerment in Warangal district of Andhra Pradesh and found the members had joined the group in order to earn more income, promote savings habits and to develop collective, economic and social activities. Sahu and Singh (2011) studied the impact of microfinance on women's empowerment. Microfinance has got women together and also empowered them in a basic sense, very little is known about what it has achieved in terms of closing the gender gap on aspects such as: Women's ownership of and control over assets, women holding custody of income, women gaining access to domestic and community economic/other resources, women's economic versus other roles, women's indebtedness, women's economic, social and political empowerment, duration of membership and women's empowerment.

Moses (2011) and Bidnur (2012)recommended different components of women empowerment like self-development , participation in socio political decision making, scope for skill development and impact on general welfare of the family and community.

All these studies focused on the empowerment of women through micro-finance in the various parts of the world and the studies which are conducted in India have mainly focused on the rural areas.Till date to there is no study which has been conducted in the capital of India. This study will contribute to the existing literature in two ways: firstly, by understanding the role micro financing in association with SHGs. Secondly, to the best of author's knowledge no survey till date has been carried out in the capital of India, Delhi.

II. Research Design & Methods

Research Objectives: To study the role of micro financing institutions in empowering the women living in the urban

India especially in Delhi, the following research objectives have been formulated:

i. To analyze the impact of micro financing through SHG's on socioeconomic status of women in Delhi.

ii. To analyze the impact of micro financing through SHG's on economic status of women in Delhi.

Hypothesis Development: On the basis of above objectives the following hypotheses have been developed:

Hypothesis 1: There is significant relationship between microfinance and Social empowerment of women.

Hypothesis 2: There is significant relationship between microfinance and Economic empowerment of women.

Sampling Method and Data:The study isdescriptive and empirical in nature. It is based on both primary and secondary data. Secondary data was collected from various NGO reports, articles, working papers, journals and magazines.The primary data was generated from an open ended and close ended questionnaire. The primary data was collected in 3 months (Jan, 2016-March, 2016). The survey was conducted in the capital region Delhi, India with the specific objective of studying the role of women empowerment through Self Help groups located in different regions of Delhi. In this study Cluster sampling and area sampling is followed. Since SHG are located in selected parts of Delhi, specifically those areas are chosen for survey where these SHGS are located. The study was conducted in the North-West region of Delhi .Further for the purpose of data collection, two micro financing institutions of Delhi have been selected and four help groups promoted by these institutions has been taken up. The microfinance institutions contacted by the researchers for the purpose of data collection are Nidaan Micro financingand Satin Credit care Network Limited. The SHG's associated with these institutions were located in the east Delhi. The researchers had to contact the person specifically dealing with the micro-financing of women in SHGs. Then they gave link of 8 SHGs and out of these 8 SHG 5 women from each group werechosen for survey. Therefore, a sample of 200 women associated with various self-help groups and who has taken loans from any microfinance institutions have been taken for the purpose research.

III. Finding & Analysis

The present study is empirical. The researchers intended to study the role of microfinance on women empowerment; hence researchers collected information from female self-help group only through questionnaire research

instrument. Women empowerment has been studied with the help of social empowerment, economic empowerment and micro finance. The questionnaire was segmented into four sections as per used dimensions; the first part was pertaining to demographic characteristics of the female self-help group members as name, age, education, marital status, type of business. The remaining section included two different dimensions in detail, firstly questions related to social empowerment which is composed of different 16 questions. The second part was related to economic empowerment which is composed of different 19 questions and third part related to micro finance. Table 1 depicts the details of different structure of questionnaire and Table 2 show the numerical codes used for the questions.

Demographic profile of the respondents

Table 3 presents the demographic profile of the sample; the 35.5% of respondents belonged to age group of 40-50 years whereas only 6%respondents were in the age group of 50-60 years while no single respondent belonged to age group of above 60 years old. As indicated in table, majority of respondents have primary education whereas noneof the respondentsheldpost-graduation degree. The marital status of the women showed that 90.5% respondents are married whereas 1.5% of respondents are divorced. When it comes talking about associated timing with microfinance, 79% of respondents are associated with different microfinance service for less than 3years. There is no single respondent who is associated with any form of microfinance for more than 15 years.

Quantitative Data Analysis and Interpretation

AMOS 21 software was used to perform CFA. The analysis was based on zero level latent variables. KMO value observed for these variables was 0.593 which is greater than 0.5 and considered as good. Bartlett's test significance value was 0.000 which is less than 0.5 hence it is acceptable to conduct Principal Component Analysis. The first construct of the study is Social empowerment which has been shown Figure 1:

Factor Analysis of Section B – Evaluating perspective on Economic empowerment (Q1-Q19)

KMO value observed for these variables was 0.579 which is greater than 0.5 and Bartlett's test significance value is 0.000 which is less than 0.05 hence it is acceptable to apply Principal Component Analysis. Figure 2 gives the detail of measurement model on Economic Empowerment:

KMO value observed for these variables was 0.697 which is greater than 0.5 and Bartlett's test significance value is

0.000 which is less than 0.05 hence it is acceptable to apply Principal Component Analysis. Figure 3 gives the detail of measurement model on Micro finance:

Summary of Confirmatory Analysis

Measurement Model

The model fit was evaluated by chi-square value to degree of freedom ratio (CMIN/df), goodness of fit index (Joreskog&Sorbom, 1989), the comparative fit index (Bentler, 1990), RMSEA (Cudeck, 1993), AGFI. The threshold for CMIN/df should be less than 3.0 (Hu &Bentler, 1999). The value of GFI, AGFI, TLI and CFI should be more than 0.90. However, RMSEA must be lower than 0.05 to indicate a close fit of the model in concert with the degree of freedom.

In the measurement model, degree of variance (of construct) is assessed by quared factor loadings. The observed variables are treated to have higher explanatory power when the squared factor loading for each one is more than 0.50, moderate if between 0.30 and 0.50 and poor if below 0.30 (Homes, 2001). Please refer Table 4.

In current study, the regression weights are significant (P<0.05). CMIN/df is 2.768, RMSEA = 0.043, RMR = 0.059, CFI = 0.963 and TLI = 0.982, GFI 0.941 and AGFI 0.930. The result suggested that the model is appropriate to the data.

Structural Model

Structural equation modelling is used in current study to assess the relationship between women empowerment and micro finance. Women empowerment is measured in form of social empowerment and economic empowerment. Goodness of fit indices is analyzed to assess the fitness of hypothesized between social empowerment and economic empowerment. As the assumptions of SEM are met hence, overall model fit indices along with the various coefficient parameters are estimated to assess the relationship between the variables. The result of the study shows a significant relationship between social empowerment, economic empowerment with microfinance. Please refer Figure 4.

IV. Conclusion

The study draws attention to increasing importance of gender equality as central to family wellbeing and socioeconomic development of a country and microfinance initiatives have proved to be an important tool in such developments. They use this pooled resource to make small interest bearing loans to their members.

Women empowerment can be done with the help of social empowerment and economic empowerment. One of the proposed hypotheses (H1) of the study has been that there is positive relationship between microfinance and Social empowerment of women, has been accepted. It means microfinance affects social empowerment of women. Microfinance has the potential to have a powerful impact on women's empowerment. Although microfinance is not always empowering all women, most women do experience some degree of empowerment as a result. Empowerment is a complex process of change that is experienced by all individuals somewhat differently.

The second hypothesis (H2) - there is significant relationship between microfinance and economic empowerment has been also accepted. Overall, it can be said microfinance empowers the women livelihood. Impact of micro finance is appreciable in bringing confidence, courage, skill development and empowerment. The SHG members feel free to move with their groups and leaders. It leads them to participate on various social welfare activities with good cooperation. While interacting with the respondents, it is noticed that some members are expecting the NGO to come up with more training sessions in income generating activities. All they need is a way to develop their skills and talents by participating in various training programs. Strengthening women's financial base and economic contribution to their families and communities plays a role in empowering them. In some cases, access to credit may be the only input needed to start women on the road to empowerment. But power is deeply rooted in our social systems and values. It permeates all aspects of family, from personal dreams and aspirations to economic opportunities.

Limitation of Study:- The limitations of the present study occur from the non-availability of some data. This study has been supplemented by primary data of North-East Delhi only by taking 200 respondents can be one of the limitations.

Future Scope:- The present study has highlighted women empowerment through microfinance (Self-help group) of Delhi (North -West) to depict the women empowerment. In depth study of SHG's of other state along with successful schemes can be taken for further analysis.

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Table 1: Table showing structure of the Questionnaire

Section	Code	Section Name	No. of Questions	Scale Used
A	GVR	General view of Microfinance	----	
B	SE	Evaluating perspective of Social Empowerment	16	Likert
C	EE	Evaluating perspective on Economic Empowerment	19	Likert

Table 2: Numerical code for questions

Scale	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Numerical Code	1	2	3	4	5

Table 3: Demographics profile of the respondents

Demographic Variables	Frequency	Percentage
Age		
Between (20-30) years old	68	34
Between (30-40) years old	48	24
Between (40-50) years old	71	35.5
Between (50-60) years old	13	6.5
Above 60 years old	-----	
Educational Background		
No formal education	56	28
Primary education	84	42
Secondary education	56	28
Diploma	---	
Bachelor Degree	4	2
PG Degree	---	
Occupation		
Housewife	174	87
Working	26	13
Marital Status		
Single	9	4.5
Married	181	90.5
Divorced	3	1.5
Widow	7	3.5
Associated timing with MF		
Less than 3 years	158	79
Between 3-5 years	34	17
Between 5-10 years	5	2.5
Between 10-15 years	3	1.5
Above 15 years	---	

Figure 1: Measurement Model on Social Empowerment
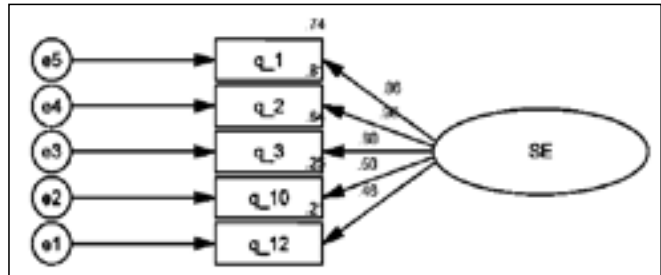

Figure 2: Measurement Model on Economic Empowerment
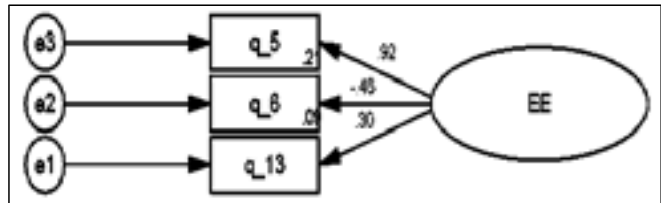

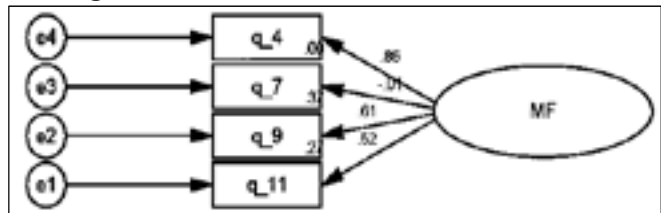**Figure 3: Measurement Model on Microfinance**

Table 4: Measurement Model

Variable Label	Final Standardized Loadings	Squared Multiple Correlation	Average Variance Extracted (AVE)
Social Empowerment			
Q1	.86	.78	
Q2	.90	.68	
Q3	.80	.58	0.704
Q10	.50	.44	
Q12	.46	.45	
Economic Empowerment			
Q5	.92	.82	
Q6	.46	.45	0.5133
Q13	.30	.27	
Micro finance			
Q4	.86	.78	
Q7	.01	.01	.5025
Q9	.62	.58	
Q11	.52	.49	

Figure 4