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The best way to predict the future is to invent it."

Alan Kay

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CONTENTS **PAGE NO.**

From the Chief Editor's Desk

It's a great pleasure to release the second issue of "International journal on global business management and research". There is an inevitable need for the educational institutions to focus on research as that alone will ensure that our country competes effectively with most advanced countries in many fields of engineering, technology and management. As an instrument towards this objective, our journal is trying to enable knowledge-creation and knowledge-sharing across the globe.

Our efforts towards excellence in research are evident through this issue with its broad range of disciplines discussing its contemporary issues. The lead article in this issue is on "Professional Skepticism" by Aiste Urboniene and her co-authors from Vilnius University Lithuania.

A variety of other topics have been covered empirically on customer satisfaction, employee engagement, investors' behavior etc. A few conceptual studies have been added in this issue on employee engagement, knowledge management and HRM challenges. A special paper on Basel III accord in Indian perspective is a major contribution from financial front.

It is therefore evident that the journal is trying to entertain papers from all disciplines on management by visible contributions from all over the world. I hope the readers of this journal will find it interesting and informative. We are pleased that IJGBMR is listed in ProQuest's ABI-Inform database and Google. We are hoping to be listed with few more directories very shortly.

I take this opportunity to convey our special thanks to Tata Consultancy Services for their valuable contribution in terms of financial sponsorship for this issue. TCS has always been a source of inspiration for us and we will continue to look forward to them for achieving professional excellence.

We welcome inspiring and innovative contributions from academicians, corporate members, and research scholars to enhance knowledge sharing among the management professionals across countries.

If we knew what we were doing it wouldn't be Research

-Albert Einstein

The Relationship between Students' Thinking Styles and Professional Skepticism

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Abstract

The current study investigates the relationship between professional skepticism and students' thinking styles in Lithuania. One hundered and nine (109) business majors (management and business adminstration) and other majors (Philology and Advertising) students were surveyed. Sternberg et al. (2007) Inventory Revised II was completed by participants to identify their type I (creativity-generating) and type II (norm-favouring) thinking styles to test the relationship. Hurtt's (2010) scale was used to measure professional skepticism. The results show that type II (norm-favoring) thinking styles are associated with professional skepticism. In addition, there was no difference between business students and students with other majors with respect to professional skepticism. To our knowledge, it is the first study that tests the relationship between professional skepticism and thinking styles using business students and students with other majors in Lithuania.

Keywords: professional skepticism, thinking styles, business and other students' majors, Lithuania.

I. Introduction

In the global and constantly changing business world, it is important that professionals act flexibly and think effectively. Effective thinking is a key to management success leading to innovations and creative solutions (Smith, 2003). A number of thinking styles have been identified, and any individual will use a mixture of styles depending on the circumstances. However, each individual will have a style or styles which they draw upon more often than the other styles. Arguably, effective thinking includes critical thinking and professional skepticism that help problem-solving, in decision-making and in avoiding crisis situations in work places. According to Ennis (1993), critical thinking is connected to creative aspects and as conceiving of alternatives, formulating hypotheses and definitions, and developing plans. As Beyer (1995) has observed there are authors that evaluate skepticism as an integral part of critical thinking. He underlines that a good critical thinker should be disposed to skepticism as well as to questioning accuracy, authenticity, plausibility, and so on. Also, Johnson (2003, p. 15) makes an assumption that "more knowledge of science makes for better critical thinking and thinking styles and therefore more skepticism". Professional skepticism is defined as "a doubting or questioning attitude or state of mind" (The American Heritage Dictionary of the English Language, 2009). This means that a skeptical individual is reluctant to accept something as factual without evidence, without suspicious thought, and critical assessment of all information. Professional skepticism, by definition, is an attitude and a style that includes a questioning mind, cautious in adopting beliefs and making critical assessment of all evidences. Overuse of professional skepticism, however, could lead to distrust, while underuse could lead to problems such as bad decisions and even business collapse. Suitable levels of professional skepticism may produce high-quality decisions.

It has been recognized that professional skepticism is influenced by an individual's competence level such as knowledge. In turn this knowledge is influenced by the type and amount of education and training to which the individual has been exposed. Dominant teaching and learning styles can be influenced by both the culture of the country and the discipline being studied (Rutz et al., 2003).

Noneless, acquiring knowledge in a certain study field and obtaining an academic degree provides an opportunity for mastering effective thinking skills. Thus, there is considerable value in teaching business students and students with other majors how to think effectively and make decisions. However, teaching students critical thinking skills is a long and complicated process (Van Gelder, 2005) that requires that lecturers understand how to impart such skills. The current study is different from prior research because it is the first study that empirically investigates the relationdship between students‘ thinking styles and professional skepticism. This is important because it is argued that in addition to drawing on appropriate thinking styles, there is a need for experts to exercise professional skepticism in their jobs. Thus, studying the relationship between professional skepticism and thinking styles is useful for both universities and organizations.

Lithuania is used because it represents a collectivism culture, according to Hofstede (1991) and it is important to know which thinking styles are preferred by students in Lithuania as this should be taken into account when designing approaches to education. In addition, if students are being prepared for an occupation where a particular learning style is important, then this will indicate the deficit (if any) which needs to be overcome.

This paper aims to identify and compare the relationship between students' thinking styles and professional skepticism among students in two different disciplines in a Lithuanian University.

Thinking Styles

Thinking styles are part of intellectual styles (Zhang & Sternberg, 2006). Thinking styles are defined as the favorites in using one's capabilities (Zhang & Sternberg, 2006). Sternberg (1997) called it "mental self-government" because there are diverse methods of governing a society and there are different methods by which a person desires to use his/her capabilities. Therefore, individuals tend to conduct their daily work by choosing the styles which they prefer and with which they are comfortable. It is likely individuals' thinking styles interact with the task and the environment under which it is performed. Sternberg (1997) states that thinking styles can be refined and changed. Mental self-government theory has been considered in this study as it the most frequently used Thinking Styles Inventory (Zhang, 2010). In addition, the theory has been proved internal valid in prior research.

Thinking styles have been examined among teachers and students. Some research has focused on teachers' styles and expectations of students (Saracho, 1991). Other research has tested the relations of teachers' styles and students' achievement (Tymms & Gallacher, 1995) and students' socialization (e.g., Webb, 1988).

Prior research also examines teachers' styles and students' thinking styles (Zhang, 2009). Teaching styles were related to thinking styles according to Zhang (2009). Students thinking styles were related to their individual characteristics and their learning environments (Grigorenko & Sternberg, 1997), and to their academic performance (Zhang & Sternberg, 1998). Zhang (2001) finds that thinking styles are related to academic performance; however, there is no positive relationship between creativity thinking styles and academic performance.

Teachers' characteristics such as age and gender impact on their teaching styles (Zhang & Sternberg, 2002). Academic discipline is an important factor as it moderates the relationship between student-teacher style match and students' performance (Zhang, 2006).

Sternberg identifies 13 thinking styles which are grouped into five dimensions: functions, forms, levels, scopes and leanings. Zhang and Sternberg (2006) reduced the 13 thinking styles into three types. Type I thinking styles (high levels of cognitive complexity – creativity-generating) which includes legislative (being creative), judicial (evaluative of other people or products), hierarchical (prioritizing one's tasks – a sense of order), global (focusing on the holistic picture), and liberal (taking new approaches to tasks).

Type II thinking styles (lower levels of cognitive complexity – norm-favoring) which include executive (implementing tasks with prescribed procedures and respect for authority), local (focusing on concrete and discrete details), monarchic (working on one task at a time), and conservative (using

traditional approaches to tasks – require conformity).

Type III thinking styles embody the anarchic (working on whatever tasks that come along), oligarchic (working on multiple tasks with no priority), internal (working on one's own), and external (working with others). The current study uses type I and type II thinking styles, arguably because they probably relate to professional skepticism as they are require high levels of cognitive thinking and problem-solving skills.

Zhang (2001) argues that type I thinking styles are regarded more effective than the type II and type III because they enable students to solve problems by using creativity. The current study suggests that students with type I and type II thinking styles are likely to score high on skepticism.

II. Professional skepticism

Indeed, thinking requires similar skills such as critical assessment, evidence evaluation, and making complex decisions. Both thinking styles and professional skepticism are required problem-solving skills.

However, these skills may different from one person to another and from culture to culture because of the differences in education systems and learning styles. Learning styles "refers to the consistent way in which a leaner responds to or interacts with stimuli in the learning context" (Loo, 2010, p. 252). Students' learning styles and preferred teaching/learning methods are influenced by gender and age (Zhang, 2001). Motivation to learn and attitudes towards learning are arguably influenced by culture as well. For example, a collectivist culture such as in Lithuania, suggests that most prefer the informative way of learning, based on being the receiver of information (Redding, 1980). They prefer a teaching style which consists of lectures followed by examinations on the content taught as the model of learning (Rutz et al., 2003). On the other hand, in individualistic cultures, such as Australia, students are encouraged to use critical thinking and problem-solving in their learning (Rutz et al., 2003).

In addition, professional skepticism may differ between majors. Business major students are aware of corporate collapses that have taken place in the last 10 years, and such issues are an important part of their curriculum development. This may make them more skeptical than students in other student majors and, therefore, they may have higher/ different thinking styles. Problem solving and professional skepticism are related (Nelson, 2009) because they are complex, non-routine, and require cognitive complexity (Rixom, 2010).

This suggests that a higher level of thinking styles I & II could lead to high professional skepticism. Thus, the following hypotheses were developed:

H1: There is a positive relationship between thinking style type I and professional skepticism.

H2: There is a positive relationship between thinking style type II and professional skepticism.

Based on Zhang (2001), older students are more likely to be classified as thinking style type I because they are more judicial. The business literature reports some elements that may affect the level of professional skepticism such as work experience (Shaub & Lawrence, 1999; Carpenter et al., 2002; Payne & Ramsay, 2005);

In addition, it has been reported that inexperienced accountants are more skeptical in thought and behaviour than experienced accountants (Shaub & Lawrence, 1999; Carpenter et al. 2002; Payne & Ramsay, 2005). This may be because experienced accountants have the knowledge that increases their self-confidence and decreases their skepticism. Alternatively it may be that the audit firm cultures are incompatible with high as opposed to moderate levels of scepticism.

H3: There is a significant relationship between the age of students and their level of professional skepticism.

Over the past decade in Australia, Europe, and the United States (US), the accounting and auditing profession, users of financial statements and governments have expressed concern about corporate collapses around the world. In 1980, there was a call for more effective ways to detect material misstatements that related to fraud (e.g., Romney et al., 1980) and errors (Asare

& Davidson, 1995). In the past few years, there have been many events suggesting the importance of detecting fraud such as the introduction of the international auditing standards (IAS 99) and the Australian Auditing Standards (ASA 240). These events have included an unprecedented level of corporate collapses during the close of the 20th century and the early part of the 21st century, e.g., Enron, Waste Management, WorldCom, Royal Ahold, and Parmalat. As a consequence, business major students are likely to be more skeptical than students in other majors due to their knowledge of such events, and their thinking styles may be different.

H4: Business students' majors are likely more skeptical than students with other majors.

III. Research Design

Participants

In total, 109 first-year undergraduate students from Vilnius University participated in the current study. Fifty-five students were recruited from the Lithuanian Philology and Advertising study program and 54 students studying management and business administration study program. Ninety-one participants were female, and 18 were male. The participants were from bachelor studies. The participants' ages ranged from 20 to 24. All participants were Lithuanian except three respondents: one Polish, one Russian, and one Latvian.

Data collection

The data were collected in February 2012. An associate professor at Vilnius University explained the objectives of the study to all participants. The participants were undertaking their lectures. The participants are enrolling in business degrees and other degrees. The authors and the professors collected the data in the lecture rooms at the conclusion of the lectures. The participants were asked to fill out a survey. It is consistent of three parts. Part one is related to thinking styles, part two measures professional scepticism, and part three is related to demographic data. The participants spent 20-30 minutes to complete the survey. In the beginning the students were informed about the purpose of the survey and asked to complete the survey individually. All participants were volunteers. In the current study, the survey was administered in the Lithuanian language.

Measures

There are two independent variables (thinking styles and students majors/ business and other majors' students). The dependent variable is professional scepticism. Thinking styles has two levels (type I and type II) using business students (management and business adminstration) and students with other majors (Philology and Advertising). Hurtt's (2010) scales were used to measure professional skepticism. To measure professional skepticism, participants were required to assess the agreement on 30 statements and rate it on a scale of 1 (strongly disagree) to 6 (strongly agree). Three sample items are: "I do not feel sure of myself","I am confident of my abilities", "I take my time when making decisions".

Thinking styles are measured using Inventory Revised II (Sternberg et al., 2007). This measure has been used widely in the literature. The participants rated themselves on a seven-point Likert scale, with 1 indicating that the statement does not at all represent the way they normally carry out their tasks, and seven denoting that the statement characterizes extremely well the way they normally carry out their tasks. Three sample items are: "I like tasks that allow me to do things my own way (legislative style)", "I tend to pay little attention to details (global style)", "I like problems where I need to pay attention to details (local style)".

Limitations

The study has several limitations. First, as there is a lack of other empirical studies inspecting the association between thinking styles and professional skepticism with similar constructs, the generalization of the results need to be verified further with other populations. Second, the current study used surveys to examine the influence of the independent variables on the dependent variable in Lithuania. Therefore, the results of the current study cannot be generalized to all students, organizations, and cultures. Future research concerning participants from other educational and cultural settings can reinforce understanding about the relationship between thinking styles and professional skepticism.

Regardless of the limitations, this study has made contributions in the area of professional skepticism and thinking styles. The current study provides empirical evidence for the relationship between professional skepticism and thinking styles.

IV. Results

Table 1 shows descriptive data for the three core variables. The descriptive statistics for these three core demographic variables (gender, age, education, and business/other student majors) are given in table 1. The participants consist of fifty five (50.46%) business students and fifty four (49.54%) students in other majors. The participants (51 students) predominantly have 13 years of education (46.79%). Fifty-eight (53.21%) of participants are under the age of 20 and fifty-one (46.79%) are between 20-40 years old.

Table 1 - Demographic Statistics

	Frequency	Percent
Major*		
Business	55	50.46
Other	54	49.54
Total	109	100.00
Education		
12 years	31	28.44
13 years	51	46.79
14 years	14	12.84
15 years	13	11.93
Total	109	100.00
Age		
Under 20	58	53.21
20-24	51	46.79
Total	109	100.00
Gender		
Male	18	16.51
Female	91	83.49
Total	109	100.0
Majors refer to academic majors (business versus other)		

Table 2 provides the means and standard deviations for professional skepticism of participants for thinking style 1 and thinking style II. Table 3 indicate that professional skepticism is mainly higher for thinking style 1. In general, professional skepticism is higher for females than males and older age is more skeptical than younger age. Professional skepticism is examined in details using ANOVA reported in Table 3. An Analysis of variance (ANOVA) is used to test the hypotheses. ANOVA is used to test the effect of independent variables on the dependent variables. A t-test is also used to detect differences in mean scores on professional skepticism.

Table 2 - Descriptive Statistics of mean (standard deviation)

	Skepticism		Style 1		Style 2	
	Mean	SD	Mean	SD	Mean	SD
Major						
Business	112.1	(11.8)	41.3	(4.9)	39.9	(4.4)
Other	108.9	(12.0)	41.3	(4.1)	38.9	(5.6)
Education						
12 years	110.3	(10.8)	40.9	(4.9)	39.6	(5.7)
13 years	108.4	(14.0)	41.2	(4.2)	39.0	(5.3)
14 years	112.9	(10.7)	43.5	(5.1)	39.2	(5.8)
15 years	112.8	(6.5)	40.2	(3.9)	39.2	(6.0)
Age						
Under 20	107.7	(13.1)	40.9	(4.6)	39.0	(5.9)
20-24	113.7	(9.7)	41.7	(4.5)	39.5	(5.0)
Gender						
Male	110.7	(11.3)	40.4	(4.3)	37.9	(6.2)
Female	113.7	(12.0)	41.5	(4.6)	39.5	(1.09)
Overall	110.5	(12.0)	41.3	(4.5)	39.2	(5.5)

Response scales for professional skepticism ranged from 1 to 6 (where 1 refers to strongly disagree and 6 to strongly agree).

Hypothesis 1 states that there is a positive relationship between thinking style type I and professional skepticism. ANOVA shows no significant relationship between thinking style type I and professional skepticism (F = 1.77, p = 0.186). The result indicates that professional skepticism does not require higher levels of cognitive complexity or creativity. Individuals who are willing to take new approaches do not necessarily have a high level of skepticism. These individuals may be risk takers and therefore are not necessarily skeptical.

Hypothesis 2 states that there is a positive relationship between thinking style type II and professional skepticism. The result confirms the hypothesis. There is a significant relationship between thinking style type II and professional skepticism (F = 7.55, p = 0.007). Individuals with lower cognitive complexity are likely to be skeptical. There are possible reasons for such a result. First, students are likely to perform tasks according to the prescribed procedures (excusive). Secondly, they focus on details (local) and thirdly, they are conservative.

Hypothesis 3 states that there is a significant relationship between the person's age and their professional skepticism. The result confirms the hypothesis. There is a significant relationship between the age and professional skepticism (F= 5.00, p = 0.028). This suggests that older students have different knowledge and experience than younger students and, therefore, different levels of skepticism.

Table 3 - Results of ANOVA - Dependent: Professional skepticism

Source	Df	SS	MS	F	Sig
Style1	1	223.4	223.4	1.77	0.186
Style 2	1	961.4	961.4	7.55	0.007***
Age	1	636.8	636.8	5.00	0.028**
Gender	1	5.9	5.9	.05	0.831
Major	1	4.1	4.1	0.03	0.857
Education	3	95.0	31.7	0.25	0.862

*** Statistically significant (1% level, one-tailed).
** Statistically significant (5% level, one-tailed).

Hypothesis 4 states that business majors will differ from other majors with respect to professional skepticism and thinking styles.

T-test shows that there is no significant differences between business and other majors students (T =1.37, p =0.173). One possible explanation is that other majors are also aware of corporate collapses and therefore they have similar levels of skepticism as business

students. This indicates that professional skepticism was not course specific in this case. Further analysis reveals that there is no gender effect. Both males and females have similar levels of skepticism.

V. Discussion and conclusion

The primary objective of the current study was to investigate the relationship between professional skepticism and thinking styles. A second goal of the current study was to test whether there are significant differences between business majors and students with other majors regarding professional skepticism. Using students from Lithuania, the results show that there is a positive relationship between students' thinking style II and professional skepticism. That is, students who are skeptical are more likely to have different thinking styles.

The result indicates that professional skepticism is not requiring higher levels of cognitive complexity or creativity but rather lower levels of cognitive complexity and conservative thinking. There are no significant differences between business students and students with other majors with respect to professional skepticism. The results of the present study identified a unique contribution of thinking styles to students' professional skepticism.

The results of the study have implications for learning and teaching, professional bodies, and potential employers. In order for students to be successful in the world of work, students should have a reasonable level of skepticism with a variety of thinking styles, especially thinking styles II. How schools and universities should prepare students to be skeptical and participate in complex decision making is a challenge for educational organizations at all levels.

Indeed, understanding the circumstances for skeptical thinking can benefit schools and universities if proper polices in place for developing students' critical and skeptical thinking. Currently, there is a thoughtful interest in encouraging critical thinking and skeptical views in education. The results of the current study can provide suggestions to educators of what types of thinking styles need to be fostered and cultivated in order to develop and foster skeptical thinking of students. For example, thinking styles II (lower level of cognitive complexity) of individuals may be helpful to promote students' skeptical thinking.

From this study, the study shows that professional skepticism did not require higher levels of cognitive complexity but rather lower levels of cognitive complexity. Furthermore, there were no differences between business majors and students with other majors with respect to professional skepticism.

The study provides a first step in an investigation that will be further examined in future research. The extension of the present study to another culture and other occupations will be useful venues for future research. And then a comparison could be made between the result of this study and other future studies. The current study contributes to the literature and we hope educators can develop teaching strategies that can encourage reasonable sceptical thinking.

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"An expert is one who knows more and more about less and less until he knows absolutely everything about nothing."

– Nicholas Murray Butler

An Empirical Study on Investors' Behaviour in National Capital Region (NCR)

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Abstract

The investment decisions are taken by investors depending upon the options available and the expected level of risk and return they can bear. The recent developments in financial and capital market have opened a wide variety of investment options. This study analyzes the demography of investors in Faridabad and their investment objectives with the various options available in the market. A sample of 200 investors was taken from Faridabad district. The survey found that insurance is the most preferred source of saving and investment, followed by bank deposits and PPF, NSC, post office savings, property. Bonds, followed by equity investment and debentures are the least preferred source of investment. Occupational group and gender of respondents does not seem to have any impact on investment objective, where as age, income and education have association with investment objectives.

Key words: Investment objective, Capital Appreciation, Chi-square test, Demographic variables, information sources, occupational group.

I. Introduction

During the 1990 a new filed known as behavioral finance began to emerge in management science. The foundation of behavioral finance is an area based on an interdisciplinary approach including scholars from social sciences and business schools **(Victor Ricciardi and Helen K. Simon, 2000).**

In the financial sense, investment is the commitment of a person's funds to derive income in the form of interest, dividend, premiums, pension, benefits or appreciation in the value of their capital, purchasing of shares, debentures, post office savings certificates, insurance policies are all investments in the financial sense. The art of investment is to see that the return is maximized with the minimum of risk, which is inherent in investments. Therefore investment involves employment of funds with the aim of achieving additional income or growth in values **(Mishra, 2010)**

In India, numbers of investment avenues are available for the investors. Some of them are marketable and liquid while others are non marketable and some of them also highly risky while others are almost risk less. The investors have to choose proper avenue among them, depending upon his specific need, risk preference, and return expected on investment **(Geeta and Ramesh, 2011).**

The individual investment function depends upon the age, income, occupation, marital status, investment options and awareness of the investors. Today, a large number of investment options are available in market offerings different returns and risks. Different investment options represent a different risk reward trade off. Low risk investments are those that offer assured but lower returns. An investor's risk tolerance plays a vital role in choosing the most suitable investment option. Banks today provide a range of investment options, including international investment, investment in commodities, stocks, bonds, precious metals and investment funds. Other options for investment include certificates of deposits, futures and investment clubs. Investment involves employment of funds with the aim of achieving additional income or growth in values **(Mishra, 2010).**

Investment behaviour of investors is undoubtedly a center of attraction for both domestic and international investors. The reason may be attributed towards free economy, structures regulatory framework and close eye of the statutory bodies **(Das, 2011).** Taking this into account, the present study aims to focus on various investment options available in Indian economy for individual investors and finding out their confidence regarding investment. It helps us to know about the different instruments and institutions' of financial market.

II. Review of Literature

A review of earlier research works

provides an insight into various dimensions and the future research areas.

Mckechnie (1992) analyzed the behaviour of consumer in relation to financial services with a special reference to sector and its products.

Somasundaram, (1998) has found that bank deposits and chit funds were the best known mode of savings among investors and the least known mode were Unit Trust of India (UTI) schemes and plantation schemes.

Gavini and Athma, (1999) found that social considerations, tax benefits, and provision for old age were the reasons cited for saving in urban areas, whereas to provide for old age was the main reason in rural areas. Among the post office schemes, Indira Vikas Patra (IVP), KVP and Post Office Recurring Deposit Account (PORD) were the most popular, in both urban and rural areas.

Shanmugam (2000) studied a group of 201 investors to examine the factors influencing investment decisions. The objective of this study is to find out sources of information used by investors and factors influencing share investment decisions. His study revealed that financial newspaper comments are relied upon by most of the investors. Further, the analysis also leads to the conclusion that psychological and sociological factors dominate the economic factors in investment decision making.

Muthupandi (2000) study revealed the various characteristics of an investor and the study revealed that marital status, nature of occupation and the income of the investors affect the investment decision to the greater extent.

Karthikeyan (2001) has conducted research on small investors' perception on Post office saving schemes and found that there was significant difference among the four age groups, in the level of awareness for Kisan Vikas Patra (KVP), National Savings Schemes (NSS), and Deposit Scheme for Retired Employees (DSRE). Further the study revealed that the level of awareness among investors in the old age group was higher than in those of the young age group. No difference was observed between male and female investors except for the NSS and KVP. Out of the factors analyzed, necessity of life and tax benefits were the two major ones that influence the investors both in semi-urban and urban areas.

Singh and Vanita (2002) in their article "Mutual Fund Investors' Perception and Preferences" concluded that the investors do not perceive the risk inherent in mutual fund investment and use it as a tax saving instrument. Among various financial instruments available to the investors, mutual funds are ranked below NSCs, PPF and LIC policies. Among the various mutual funds and schemes available for investment, private mutual funds, open-ended schemes and balanced funds are most preferred by the investors.

Ramaswami, Srivastava, and McInish (2002) examined the relationship between the asset holdings and the portfolio objectives. Their study demonstrates that asset-holdings across a wide variety of investment alternatives (stocks, bonds, mutual funds, pension plans) vary systematically as a function of the relative importance placed on multiple objectives (current income, family education, etc.) and investor characteristics, such as the stages of the family life cycle, income, wealth, education and the level of risk aversion. It provides insights into investors' motivation and life-cycle savings behaviour.

Gupta (2003) has carried out a study entitled "Stock Market Investor's Biggest Worries Today". The objective of this study is to examine the investor's perceptions about the main sources of his worries concerning the stock market. A sample comprises middle class households spread over 21 states and union territories. The study reveals that the foremost cause of worry for households' investor is fraudulent company management in addition to volatility and price manipulation.

Rajarajan's (2004) study is on "Investment Size, Pattern and Future Investment Preference of Individual Investors" on the basis of their lifestyles. The study revealed that the age group below 35 years, Industrialist group above 50 years and passive investors group by 35-50 years dominates active investors. Active investors group has short term perspective while making their Investment decisions and most of the investors read two or more sources of information before making their investment

decision and most of them tend to make investment decisions of their own.

Manish Mittal and Vyas (2008) explained that investors have certain cognitive and emotional weaknesses, which come in the way of their investment decisions. Over the past few years, behavioral finance researchers have scientifically shown that investors do not always act rationally. They have behavioral biases that lead to systematic errors in the way they process information for investment decision. Many researchers have tried to classify the investors on the basis of their relative risk taking capacity and the type of investment they make. Empirical evidence also suggests that factors such as age, income, education and marital status affect an individual's investment decision. This paper classifies Indian investors into different personality types and explores the relationship between various demographic factors and the investment personality exhibited by the investors.

Martenson (2008) examined whether investors contact programmes influence attitudinal and behavioral loyalty in different investor groups who differ in terms of their motivation and ability to understand stock market information. The study was based on a nationally representative random sample of mutual fund owners. A path model showed that contact programmes influence attitudinal and behavioral aspects for high elaborators than for low elaborators.

Kaushal and Arora (2009) made an attempt to examine the related aspects of investor's behaviour to understand the attitude and perception of investors towards mutual funds in India. They collected primary data from a sample of 225 respondents. The results conclude that mutual funds have gained popularity among large section of investors in India. Most of the investors invest for capital appreciation and were interested in open-ended equity schemes.

The survey by **Sehgal and Tripathi (2009)** on the topic "Investment Strategies of FII's in the Indian Economy" revealed that FII's play a dominant role in emerging markets in India to analyze their Investment Behaviour. The FII's do not instantly react to the Market Information and wait for the return pattern to crystallize.

Sehagal, Sood and Rajput (2009) examined definitional aspect of investor sentiment. The important economic factors that can be highlighted in the work are real GDP, corporate profits, rate of inflation, level of interest rate, and liquidity in the economy.

Dhanda and Sindhu (2010) presented a research to trace the growth of mutual fund industry in India, developed a classification of mutual funds investors and analyzed investment behaviour of retail individual investors. The results revealed that there has been a phenomenal growth in the mutual funds schemes and the assets of the mutual funds. The study suggests the impact of select demographic variables on the holding period, sectoral performance and choice of sector and mutual fund schemes. The research also provides suggestions to the fund managers to develop schemes according to different demographic variables.

According to **Geetha and Ramesh (2011)** there are a lot of investment choices and one must select the most appropriate one. The person dealing with the planning must know all the various investment choices and how these can be chosen for the purpose of attaining the overall objectives. The details of making the investment along with the various ways in which the investment has to be maintained and managed. This study examined on people's choice in investment avenues of Kurumbalur. Data were collected using structured questionnaires and collected data further by using descriptive statistics and chi-square technique.

III. Objectives and Methodology

- To measure the relative importance of different sources of information for investment decision,
- To ascertain the investment objectives and investment preference of individual investors according to the type of instruments opted for investment.
- To describe the relation of demographic variables and investment behaviour of the investors.

The changing financial and capital market has also affected the investors' preferences. The present paper is a step to

analyze the investor's preferences among various alternatives of investment options. A structured questionnaire was prepared for collecting the data from investors. In total 250 questionnaires were distributed in NCR covering different age groups, gender, educational qualification, occupation and income groups by using convenience sampling technique. The sample under study was selected keeping in view that the respondents were aware of the various financial instruments. The research has been carried out to cover various issues like size of investment, time period for investment, nature and type of investment, factors influencing investment decision. Out of total, 200 responses were found fit for analyses. The collected data have been analyzed with the help of statistical tools like, frequency distribution and percentages. Chi-square has also been applied for studying the association between various variables with the help of SPSS version 13.0.

IV. Results Analysis

4a. Frequency and Mean Distribution

Table 1 is presenting demographic profile of the respondents. It can be observed from the table that 73.5 percent of the respondents are male and the remaining 26.5 percent are female. The distribution of annual income reflected that 35.5 percent of the respondents are earning annual income 300001-500000, 29.5 percent belong to the income group 500000-800000 and 13.9 percentage falls in above 8, 00000 lakhs category. It is clear from the table that 45 percent of the respondent are belonging to the age group of 20-35 years, 36 percent of the respondents are in the age group 35-50 years. Regarding occupation of the respondents, 39.5 percent of the respondent is a private sector employee, 26 percent are public sector employees, 19 percent are doing business and 15.5 percent are professionals.

Table 1: Profile of the Respondents

Demographic Variables	Categories	No. of Respondents	Percentages
Gender	Male	147	73.5
	Female	53	26.5
Income Classification	Up to 300000 lakhs	41	20.5
	300001 – 500000 lakhs	71	35.5
	500000-800000 lakhs	59	29.5
	Above 800000 lakhs	29	14.5
Age (in years)	20-35 years	90	45
	35-50 years	72	36
	Above 50 years	38	19
Occupational Category	Business	38	19
	Private Sector Employees	79	39.5
	Public Sector Employees	52	26
	Professionals	31	15.5
Education Level	Matriculate	16	8
	Graduate	78	39
	Post Graduate	58	29
	Professional Degree	48	24
Marital Status	Married	146	73
	Single	54	27
Type of Family	Joint	68	34
	Nuclear	132	66

Source: Primary Data

As education level of respondents is concerned, 8 percent of investors are matriculates, 39 percent respondents are graduate. Out of total, 29 percent of investors are Postgraduate. Marital status of the respondent's reveals that 73 percent respondents are married remaining 27 percent of the respondents is unmarried. The sample consists of 66 percent of Nuclear family respondents and 34 percent joint family respondents.

Time preference for investment

The highest percentage of investors (48.5%) is investing for a period above 5 years followed by the respondents (22 %) who invest for a period of 3-5 years. The table clearly stated that almost 70 percent investors are investing for a period of more than 3 years. Out of total, 11 percent investors invested for less than one year. It reflects that investors do not prefer short-term investment options as in the table 3 they reflect safety and tax saving as their main objectives of investment.

Table 2: Time preference of respondents for investment

Time period	No. of respondents	Percentages	Rankings
1 Year	22	11.0	4
1-3 Years	37	18.5	3
3-5 Years	44	22.0	2
Above 5 Years	97	48.5	1
Total	200	100	

Source: Primary Data

Total Percentage of Investment

The survey also revealed the percentage of money invested by respondents out of their total income. The highest number of respondents has selected a range between 5-15 percent, followed by the respondents who invest between 16-30 percent out of their total income. In total, 15.5 percent respondents are investing above 30 percent of their income.

Table 3: Distribution of Respondents According to Percentage of Investment

Percentage of income invested	Frequency	Percentage	Rankings
up to 5 %	32	16	3
5-15%	91	45.5	1
15-30%	46	23	2
Above 30%	31	15.5	4
Total	200	100	

Source: Primary Data

4b. Preferences of Sources of information (Objective 1)

The various sources of information for investors include the Internet, television, financial advisor, friends and referrals and Newspapers and magazines with the aim of determining the relative importance of these sources of information according to investors' viewpoint.

Table 4: Sources of information for investment Decision

Source of Information	No. of respondents	Percentages	Ranking
Internet	14	7	4
Financial Advisors	10	5	5
Television	24	12	3
Friends & Referrals	62	31	2
Newspapers and Magazine	90	45	1
Total	200	100	

Source: Primary Data

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Financial Advisors	10	5	5
Television	24	12	3
Friends & Referrals	62	31	2
Newspapers and Magazine	90	45	1
Total	200	100	

Source: Primary Data

According to the table, newspaper and magazine (45%) is the most popular source of information for investors. The second important source of information is friends and referrals (31%). Financial advisor (7%) is the least preferred source of information according to this survey result.

Investment Objectives of Individual Investors (Objective 2) Objective of Investment

In the present survey an attempt has also been made to find out the most preferred objective of investment. In the present financial environment there are various types of investment options available to investors. The investors make decisions according to their need and requirement. The various investment objectives include capital appreciation, liquidity, safety, tax saving and periodical returns.

Table 5: Objective wise Distribution of Investors

Objectives of Investment	Frequency	Percentages	Rankings
Capital appreciation	26	13	3
Liquidity	14	7	4
Safety	78	39	1
Tax savings	70	35	2
Periodical returns	12	6	5
Total	200	100	

Source: Primary Data

Table 5 revealed that the highest percentage of the respondents is investing their money for safety purpose (39%), followed by the objective of tax saving (35%). Capital appreciation is the objective of almost 13 percent of the respondents. The least preferred objective is periodical returns (6%) and liquidity (7%) as reflected in the table.

Investment Options for Investors

Keeping in view the objective of identifying investment preferences of the investors in general, an enquiry was made regarding best investment options opted by investors during the survey. The responses so obtained (respondents have to tick all the options they prefer) is presented in table 6, reveals that insurance is the most preferred source of saving and investment (87.5%), followed by bank deposits and PPF (74%), NSC (69.5%), post office savings (52.5%), property (44%). Bonds (14%), followed in upward direction by equity investment (17%) and debentures are the least preferred source of investment.

Table 6: Distribution of Respondents according to the Type of Instruments opted for Investment

Sr. No.	Savings & Investment Options	No. of Respondents	Percentages	Ranking
1	Government Bonds	44	22	9
2	Stock Market	83	41.5	6
3	Bank Deposits	148	74	2
4	Bonds	28	14	12
5	Property	88	44	5
6	Debentures	36	18	10
7	NSC	139	69.5	3
8	PPF	148	74	2
9	Mutual Funds	49	24.5	8
10	Post Office Savings	105	52.5	4
11	Gold	63	31.5	7
12	Equity Investment	34	17	11
13	Insurance Premium	175	87.5	1

Source: Primary Data

4c. Association between demographic variables and objectives of investment (Objective 3)

This part of the paper is presenting the responses according to different investment objectives and various demographic characteristics of the respondents. The different investment objectives are classified for the purpose as follow: - (1) Capital appreciation (2) Liquidity (3) Safety (4) Tax saving (5) Periodical returns.

Table 7 presents the responses of male and female investors and their preferred investment objectives. Table reveals that the male respondents have selected their first preference as safety (38.1%), followed by tax saving (31.3%), where as the female respondents firstly prefer tax saving (45.3%) followed by safety purpose (41.5%).The survey reveals that 15.6 percent male respondents prefer capital appreciation, where as only 5.6 percent female respondents have preferred the same objectives. Similar to occupation group, gender of respondents does not seem to have any impact on investment objective, as it is confirmed by chi-square test, which accepts the hypothesis that investment objective is not dependent on gender group.

Table 7: Distribution of investors according to Gender group and objectives of investment

Objective of investment	Gender		Total
	Male	Female	
Capital appreciation	23 (88.5) (15.6)*	3 (11.5) (5.6)*	26
Liquidity	12 (85.7) (8.2)*	2 (14.3) (3.7)*	14
Safety	56 (71.8) (38.1)*	22 (28.2) (41.5)*	78
Tax savings	46 (65.7) (31.3)*	24 (34.3) (45.3)*	70
Periodical returns	10 (83.3) (6.8)*	2 (16.7) (3.9)*	12
Total	147(73.5)(100)*	53(26.5)(100)*	200

Note: Figures in Parenthesis are percentages of row and ( )* are percentages of column

Source: Primary Data, $\chi 2$ value =6.951; Df= 4; Significant at 0.138 Level

Note: Figures in parentheses are percentages

The percentage of those who favor primarily safety objective and periodical returns is the highest in case of married respondents. The respondents of married group have shown first preference towards safety (46.6%), followed by tax saving (30.1%) and capital appreciation (9.6%). The unmarried group have given first preference to tax saving (48.1%), followed by capital appreciation (22.2%) and safety (18.5%). In terms of results of chi-square test, the objective of investment is found depending significantly on the marital status.

Table 8: Distribution of investors according to marital status and objectives of investment

Objective of investment	Marital status		Total
	Married	Unmarried	
Capital appreciation	14 (53.8) (9.6)*	12 (46.2) (22.2)*	26
Liquidity	10 (71.4) (6.8)*	4 (28.6) (7.4)*	14
Safety	68 (87.2) (46.6)*	10 (12.8) (18.5)*	78
Tax saving	44 (62.9) (30.1)*	26 (37.1) (48.1)*	70
Periodical returns	10 (83.3) (6.9)*	2 (16.7) (3.8)*	12
Total	146(73.0)(100)*	54(27.0)(100)*	200

Note: Figures in Parenthesis are percentages of row and ( )* are percentages of column

Source: Primary Data, $\chi 2$ value =17.117; Df= 4; Significant at 0.002 Level

Table 9 is presenting the responses according to different objectives across different income group. Table indicates, 39 percent of the total respondents invest primarily with the aim of safety, followed by tax saving (35%). Around 13 percent of the investors invest to appreciate their capital. The objectives 'Liquidity' followed by 'periodical returns' are preferred by 7 percent and 6 percent respondents respectively. The table further provides that investment objectives differ across various income groups. The highest percentage of respondents among the entire income group except one income group i.e. 3-5 lakhs invest for safety. 'Capital appreciation' and 'liquidity' is highly preferred by the respondents belonging to 3-5 lakhs income group. The results of Chi-square test applies at 0.01 percent level of significance confirm the association of objectives of investment and income group. It implies that the income group and investment objectives have association between them.

Table 9: Distribution of investors according to income group and objectives of investment

Objectives of investment	Income group				Total
	Up to 300000	300000-500000	500000-800000	Above 800000	
Capital appreciation	1(3.8) (2.5)*	10 (38.5) (14.1)*	7(26.9) (11.9)*	8 (30.8) (27.5)*	26
Liquidity	0	6 (42.9) (8.5)*	3 (21.4) (5.1)*	5 (35.7) (17.3)*	14
Safety	25(32.1) (60.8)*	17 (21.8) (23.9)*	24 (30.8) (40.7)*	12 (15.4) (41.4)*	78
Tax savings	13 (18.6) (31.8)*	36 (51.4) (50.7)*	18 (25.7) (30.5)*	3 (4.3) (10.3)*	70
Periodical returns	2 (16.7) (4.9)*	2 (16.7) (2.8)*	7 (58.3) (11.8)*	1 (8.3) (3.5)*	12
Total	41 (20.5) (100)*	71 (35.5) (100)*	59 (29.5) (100)*	29 (14.5) (100)*	200

Note: Figures in Parenthesis are percentages of row and ( )* are percentages of column

Source: Primary Data, $\chi 2$ value =40.901; Df= 12; Significant at 0.000 Level

Occupation-wise analysis of investment objective as presented in table 10, reveals that the highest percentage of the respondents are investing with an objective of safety (39.0%), followed by tax saving (35%) and capital appreciation (13.0%). An interesting fact to note is that all the occupational categories are giving their first preference towards safety, and second to tax saving. It reflects that all investors want to secure their future in case of any type of uncertainty. On the application of Chi- Square of test, an absence of association is found between the occupation and the investment of objective.

Table 10: Distribution of investors according to occupational group and objectives of investmentinvestment

Objectives of investment	Occupation				Total
	Business	Private sector employee	Public sector employee	Professional	
Capital appreciation	9 (34.6) (23.7)*	11 (42.3) (13.9)*	3 (11.50) (5.8)*	3 (11.5) (9.6)*	26
Liquidity	1(7.1) (2.6)*	9 (64.3) (11.4)*	2 (14.3) (3.8)*	2 (14.3) (6.5)*	14
Safety	15(19.2) (39.5)*	28 (35.9) (35.4)*	24 (30.8) (46.2)*	11 (14.1) (35.5)*	78
Tax savings	12(17.1) (31.6)*	26(37.1) (32.9)*	19 (27.1) (36.5)*	13 (18.6) (41.9)*	70
Periodical returns	1 (8.3) (2.6)*	5 (41.7) (6.4)*	4 (33.3) (7.7)*	2 (16.7) (6.5)*	12
Total	38(19) (100)*	79 (39.5) (100)*	52 (26.0) (100)*	31 (15.5) (100)*	200

Note: Figures in Parenthesis are percentages of row and ( )* are percentages of column

Source: Primary Data, $\chi 2$ value =12.426; Df= 12; Significant at 0.412 Level

Table 11 reveals that, investors of all age groups invest for safety (39%), followed by tax saving (35%) and capital appreciation (13%). An inter age group analysis presents that the highest percentage of investors falling in 20-35 years and 51-60 years invest to save tax where as the middle age-group i.e. 36-50 invest for the purpose of safety. The respondent falling in age group 51-60 years least prefers capital appreciation. Chi square test was applied to test the association between age and choice of investment objective revealed that there is a significant impact of age in choice of investment objective.

Table 11: Distribution of investors according to Age group and objectives of investment

Objectives of investment	Age Group			Total
	20-35	36-50	51-60	
Capital appreciation	14 (53.8) (15.5)*	11 (42.3) (15.3)*	1 (3.8) (2.6)*	26 (100)
Liquidity	3 (21.4) (3.3)*	7 (50.0) (9.7)*	4 (28.5) (10.5)*	14 (100)
Safety	32 (41.0) (35.5)*	37(47.4)(51.4)*	9 (11.5) (23.7)*	78 (100)
Tax savings	37 (52.9) (41.1)*	11(15.7)(15.3)*	22(31.4) (57.9)*	70 (100)
Periodical returns	4 (33.3) (4.4)*	6 (50.0) (8.3)*	2 (16.7) (5.3)*	12 (100)
Total	90 (45.0) (100)*	72 (36.0)(100)*	38 (19) (100)*	200 (100)

Note: Figures in Parenthesis are percentages of row and ( )* are percentages of column

Source: Primary Data, $\chi 2$ value =41.074; Df= 12; Significant at 0.00 Level

Time horizon for Investment

The investment time period varies for different investors. The null hypothesis in this regard is that there is no significant difference in holding period among investors of different age groups. The responses obtained during the survey are presented in table 12.

H0 : "The investors' age has no association with time period preferred for investment"

Table 12 shows that almost ¾ of investors prefer medium and long-term investment. The analysis across different age groups of the investors shows that middle age group prefer investment for long time period (above 5 years), followed by younger age group (20-30 years). The calculated chi-square value turns out to be statistically significant at 1 percent level of significance; hence, the null hypothesis is rejected. It is concluded that there is a significant difference in holding time period if investment and age groups of investors.

Table 12: Holding Period of Investment: Influence of Age

Time period for investment	Age of the investors			Total
	20-35	36-50	51-60	
1year	9 (40.9) (10.0)*	11 (50) (15.3)*	2 (9.1)(5.3)*	22 (100)
2-3 year	22 (59.5) (24.5)*	8 (21.6)(11.1)*	7 (18.9) (18.4)*	37 (100)
3-5 year	27 (61.4) (30.0)*	15 (34.1)(20.8)*	2 (4.5) (5.3)*	44 (100)
Above 5 year	32 (33.0) (35.5)*	38 (39.2)(52.8)*	27 (27.8)(71.0)*	97 (100)
Total	90 (45.0) (100)*	72 (36.0)(100)*	38 (19.0)(100)*	200 (100)

Note: Figures in Parenthesis are percentages of row and ( )* are percentages of column

Source: Primary Data, $\chi 2$ value =21.128; Df= 6; Significant at 0.002 Level

The further analysis provides the impact of investors' income on holding time period of investment. The null hypothesis in this regard is that there is no significant difference in the holding period among investors of different income groups. The pattern of investors' preferences for holding period of investment, according to income groups, is presented in table 13.

Table 13: Holding Period of Investment: Influence of Income

Time period for investment	Income group				Total
	Up to 300000	300000 - 500000	500000 - 800000	Above 800000	
1 year	6 (27.3) (14.6)*	7 (31.8) (9.9)*	5 (22.7) (8.5)*	4 (18.2) (13.8)*	22
2-3 year	7 (18.9) (17.1)*	12 (32.4) (16.9)*	12 (32.4) (20.3)*	6(16.2) (20.7)*	37
3-5 year	11 (25.0) (26.8)*	14 (31.8) (19.7)*	12 (27.3) (20.3)*	7(15.9) (24.1)*	44
Above 5 year	17 (17.5) (41.5)*	38 (39.2) (53.5)*	30(30.9) (20.3)*	12(12.4) (41.4)*	97
Total	41 (20.5) (100)*	71 (35.5) (100)*	59(29.5) (50.9)*	29(14.5) (100)*	200

Note: Figures in Parenthesis are percentages of row and ( )* are percentages of column
Source: Primary Data, $\chi 2$ value =3.403; Df= 9; Significant at 0.946 Level

The analysis across various income groups of the investors' show that the highest percentage of the investors (39.2%) belongs to middle income group (300000-500000) holds the investment for more than five years. The higher income group comparatively prefers the time period of 2-3 years. Acceptance of null hypothesis leads us to conclude that income of investors does not affect holding time period of investment in various options. This is also confirmed by the Pearson chi-square test. In contrast to the age, income does not seem to have effect on the holding period as the preference of time horizon is more or less same for all investors.

Table 14 is showing the association between time horizon preferred for investment and various occupational categories. It is clear from the table that private sector employees prefer short run investment options (1 year), followed by public sector employees. Most of the respondents prefer long-term investment options followed by midterm investment options.

Table 14: Holding Period of Investment: Influence of Occupation

Time period for investment	Occupation				Total
	Business	Private sector employee	Public sector employee	Professional	
1 year	1(4.5)(2.6)*	15 (68.2)(18.9)*	4 (18.2)(7.7)*	2(9.1)(6.4)*	22
2-3 year	6(16.2)(15.8)*	16(43.2)(20.3)*	9(24.3)(17.3)*	6(16.2)(19.4)*	37
3-5 year	9(20.5)(23.7)*	14(31.8)(17.7)*	11(25.0)(21.2)*	10(22.7)(32.3)*	44
Above 5 year	22(22.7)(57.9)*	34(35.1)(43.1)*	28(28.9)(53.8)*	13(13.4)(41.9)*	97
Total	38(19.0)(100)*	79(39.5)(100)*	52(26.0)(100)*	31(15.5)(100)*	200

Note: Figures in Parenthesis are percentages of row and ( )* are percentages of column
Source: Primary Data, $\chi 2$ value =11.863; Df= 9; Significant at 0.221 Level

Acceptance of null hypothesis leads us to conclude that holding period for investment and occupation of the investors does not have any association. This is also confirmed by the Pearson chi-square test. In contrast to the age, income and occupation does not seem to have effect on the holding period as the preference of time horizon is more or less same for all investors.

4d. Major Findings

Newspaper and magazine were found the most popular source of information for investors. The second important source of information is friends and referrals. Financial advisor is the least preferred source of information according to this survey results.

The highest percentages of investors are investing for a period above 5 years followed by those who invest for a period of 3-5 years. The survey categorically finds that about 70 percent investors are investing for a period of more than 5 years.

The highest number of respondents have opted to invest between 5-15 percent of their total income, followed in line are those who invest 16-30 percent out of their total income.

While studying the objectives of investment, it has been found that the highest percentage of the respondents are investing their money for safety purpose, followed by the objective of tax saving. Capital appreciation is the objective of almost 13 percent of the respondents and the least preferred objective is periodical returns and liquidity.

Insurance is the most preferred source of saving and investment, followed by bank deposits and PPF, NSC, post office savings, property. Bonds, followed by equity investment and debentures are the least preferred source of investment.

Occupational group and gender of respondents does not seem to have any impact on investment objective.

The percentage of those who favor primarily safety objective and periodical returns is the highest in case of married respondents. The respondents of married group have shown first preference towards safety, followed by tax saving and capital appreciation. The unmarried group has given first preference to tax saving, followed by capital appreciation and safety. In terms of results of chi-square test, the objective of investment is found depending significantly on the marital status.

The investment objectives differ across various income groups. The highest percentage of respondents among all the income groups except one i.e. 3-5 lakhs invest for safety. Capital appreciation and liquidity is highly preferred by the respondents belonging to 3-5 lakhs income group.

The study implies that the income group and investment objectives have significant association between them. The association between age and choice of investment objective revealed that there is a significant impact of age in choice of investment objective. Overall, all age groups invest for safety, followed by tax investment for saving and capital appreciation. An inter age group analysis presents that the highest percentage of investors falling in 20-35 years and 51-60 years invest to save tax where as the middle age-group i.e. 36-50 invest for the purpose of safety. The respondents falling in age group 51-60 year least prefer capital appreciation.

The analysis across various income groups of the investors' shows that the highest percentage of the investors belonging to middle income group holds the investment for more than five years. The higher income group comparatively prefers the time period of 2-3 years.

The study further concludes that income and occupation of investors does not have any effect on holding time period of investment, where as age of investors effects holding of investment instrument.

4e. Conclusion

The recent developments in financial and capital market have opened a wide variety of investment options. Investors depending upon the options available take the investment decision and the expected level of risk and return they can bear. Safety and capital gain are the most preferred investment objectives. The survey also concludes that demographic variable and investment objectives have a significant association among them. Insurance is the most preferred source of saving and investment, followed by bank deposits and PPF, NSC, post office savings, property. Bonds, followed by equity investment and debentures are the least preferred source of investment.

4f. Implications of the study

The present study is an empirical study of individual investors' behavior regarding their financial assets. The findings of the study would be useful for many socio-economic purposes, including individual portfolio formulation and best selection out of various viable options of investment. This study examines the investment attitude, their preferences and different instruments. Another significant objective of the study is to examine the preferred investment avenues among the households in the study area. All these information, whatever so acquired for this study could help in better understanding relating to the financial market of India.

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"Quality means doing it right when no one is looking."

Henry Ford

Adversity Quotient (AQ) as a Predictor of Job Satisfaction

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ABSTRACT

Adversity Quotient is the capacity of the person to deal with the adversities of his life. It is the ability of the person to bounce back and deal with the situation in his or her own way as not everyone deals with adversity in the same way. The study was aimed at studying the relationship between Adversity Quotient and Job satisfaction among the managers of textile industry and also to study the differences in the research variables among different demographic groups. Fifty five managers working in Textile industry participated in the study. Questionnaires were administered to assess adversity quotient and job satisfaction among the managers. The collected data was analyzed with various statistical tools. A high level of adversity quotient and job satisfaction was observed among the respondents of 50-60 years age group, and among the female respondents. Significant differences in Reach and Endurance dimensions of AQ were observed among the respondents of different age groups. Significant differences in Ownership, Reach, Endurance dimensions, and also Adversity Quotient were observed among the respondents of different income groups. A significant correlation between Adversity Quotient and Job satisfaction was observed. Approximately seventeen per cent of the variance of job satisfaction was explained by Adversity Quotient.

Key Words: Adversity Quotient, Control, Endurance, Job satisfaction, Ownership and Reach.

I. Introduction

In today's world, the most common thing a person faces in his life is adversity. Adversity here means the difficulties one has to face in the day to day life. Hence it is very important for one to know how to face these adversities and respond to them. Every person has his or her own level of tackling these adversities. This level is what is called as the Adversity Quotient (AQ). As defined by Paul Stoltz, Adversity Quotient is "the capacity of the person to deal with the adversities of his life. As such, it is the science of human resilience". It is the ability of the person to bounce back and deal with the situation in his or her own way as not everyone deals with adversity in the same way. Each one has his or her own way to deal with it. There are lots of studies which are devoted to the areas of Intelligence Quotient (IQ) and Emotional Quotient (EQ). Both these quotients are considered to be reasons for excellent accomplishments and success especially at workplace. Paul Stoltz (1997) introduced a new concept called Adversity Quotient. According to him, AQ plays an even more important role in carrying out tasks successfully. He says AQ determines the abilities of people to respond to adversities and win over them and hence is more important than even education or social skills.

AQ is also considered to be a method used for measuring and strengthening human resilience. It is the capacity of a person to prevail in the face of adversity. AQ is based on three sciences: psychoneuroimmunology, neurophysiology and cognitive psychology. Psychoneuroimmunology is the science which deals with the relationship between mind and body. This science shows how thoughts and emotions can impact the overall health of the person and establishes a relationship between how one feels and what happens in the body. Neurophysiology deals purely with brain and its functions. This science shows how patterns are formed in the brain which becomes habit and later on behaviour for a person. Cognitive psychology is a science which deals with one's mental health and how thoughts and emotions can play a huge role in affecting this health. This science also shows how important it is for one to have control over one's life. There are different ways in which one responds to adversities. Broadly, there are two sets of people. First set of people can be called the

pessimists, who believe these adversities to be permanent and personal. They claim it to be their fault and feel it is impossible to overcome the adversity. On the other hand, there are optimists who are the second set of people. They perceive these adversities as challenges and work towards overcoming them. For them, these adversities will quickly pass and are just temporary. From the above, it is very clear that one has to be an optimist to overcome the adversities effectively.

To determine Adversity Quotient, Paul Stoltz developed the instrument Adversity Response Profile (ARP). The Adversity Response Profile is the only available tool to measure the level of adversity quotient in a person. It is a quantitative measure of a person's reaction to adversity (Stotlz, 1997). Unlike Intelligence Quotient, Adversity Quotient can be improved. This instrument can also be used to evaluate performance, risk taking ability, stress management, health, adaptability, productivity and energy levels. This instrument has arrived after years of research and studies.

AQ consists of four CORE dimensions.

Control: Control simply refers to the level of control one has over the situation or life. It determines how much one can influence a particular situation. It also influences the direction of action, the amount of effort put in, the level of perseverance and resilience. People with higher AQ's will have better control over the adverse situation. They will have higher resilience and tenacity and will put in more effort to accomplish their task successfully.

Ownership: Ownership is how much one feels accountable to improve the adverse situation. People with lower AQ blame themselves to be the cause for the situation. This is sometimes good as they may also think to overcome the adversity. But there could also be another extreme reaction where they may also get into depression and despair. There also could be another reaction where the person may abandon ownership and find helpless and powerless to overcome the situation. People with higher AQ feel accountable and owns the situation. They take responsibility, learn from their experience, change their strategy and take action to achieve their task.

Reach: Reach refers to the extent to which the adversity reaches into the other areas of life. People with lower AQ perceive even the smallest of the adversity creating a major difference in their life. On the other hand, people with higher AQ see the adversity in a different outlook. They do not allow the adversity to hinder their other parts of life. They believe the adversity caters to only that particular situation and does not impact the rest of life.

Endurance: The duration the adversity takes to last is the endurance. People with lower AQ never see the end of the adversity. They consider the adversity to last in their lives permanently and that it will never pass. People with higher AQ oppositely find the adversity to be temporary and believe there is always a solution to overpower the adversity.

II. Review of Literature

Dweck (1997) made a study on adversity quotient and found that the response towards adversity is strongly influenced by parents, teachers, peers and other important people involved in a person's life, especially during their childhood. Studies also revealed that the response to adversity can be interrupted and changed accordingly, to achieve success. Hence when the AQ is evaluated for people belonging to one area, it helps in understanding why people consistently exceed the predictions and expectations of those around them. People who cannot overcome adversities suffer in all areas, while people with relatively higher AQ's work until they reach success.

A study of Schmidt (1999) compared the adversity response scores of leaders in education to leaders in business and industry. Her study transferred the concepts related to adversity responses of business leaders to the educational realm and provides the leaders with information and support to make changes in the current system. Areas of research investigated and discussed were hardiness, resiliency, learned helplessness, self efficacy, attribution theory and the individual responses to challenges and how these areas of study relate to leadership effectiveness. A total of seventy-six education leaders and one hundred fifty eight business leaders were the respondents. She utilized the ex post facto, descriptive study using a

quantitative approach to data collection. The Adversity Response Profile (ARP), a self-rating questionnaire developed by Stoltz in 1997 was used to measure the individual's style of responding to adverse situations. Findings revealed that business and industry leaders scored high on ARP and can be interpreted that the business and industry leaders respond more effectively to adverse conditions than their education leaders' counterparts.

Williams (2003) in his dissertation "The Relationship between Principal Response to Adversity and Student Achievement" studied three aspects, the relationship between a principal's response to adversity and student achievement, the relationship between principal and teacher's response to adversity and principal's perceptions of adversity in education. He concluded that the Principal's response to adversity plays a vital role in the development of the school climate which will help and improve student achievement. Results of the research also showed a high positive correlation between AQ levels of principals and student achievement. He also founded that the teacher's perceived control over their work environment may also influence principal/teacher relationships and student achievement.

Lazaro-Capones (2004) made a study on selected middle managers working in Government agencies from the City of Manila. She worked on establishing a relationship between AQ and job performance as measured by a 360 degree feedback system. She did not find any significant relationship between Adversity Quotient and Age, Gender, Civil status or Length of service. However, results showed a significant positive correlation between Adversity Quotient and Performance level. Hence she concluded that higher the AQ, better the performance.

Marco van Gelderen (2012) conducted a study to arrive at a conceptual understanding of perseverance processes in the context of enterprising behavior and to outline readily employable perseverance strategies for situations characterized by obstacles, challenges and setbacks. He presented a process model of perseverance, drawing on elements of control theory (Carver and Scheier 1981, 1998) and appraisal theory (Lazarus, 1966, 1999; Lazarus and Folkman, 1984). From this model, it derives a variety of perseverance strategies within four broad categories: strategies that affect adversity itself; strategies that change the way adversity is perceived; strategies that reframe the aim that adversity has made difficult to attain; and strategies that help to increase self-regulatory strength.

Objective of the study

The present study was aimed at studying the relationship between adversity Quotient and job satisfaction among the managers of textile industry. This study also aims at studying the differences in adversity quotient and job satisfaction among the respondents of different age, gender and income groups.

III. Methodology

A convenience sample consisting of 55 managers working in Textile industry participated in the study. By administering questionnaires adversity quotient and job satisfaction among the managers were assessed. The collected data was analyzed with Mean, Standard Deviation, ANOVA, Correlation and Regression analysis.

Measures:

Adversity Response Profile (ARP) developed by Paul Stoltz was administered for assessing adversity quotient. The questionnaire contained twenty statements with 5 point Likert scale. Responses were collected on these statements and were scored as follows: Not at all Responsible = 1 to Completely Responsible =5. Minnesota Satisfaction Questionnaire (MSQ) Short Form was used to assess the level of job satisfaction among the employees. Responses were scored as follows: Very Dissatisfied = 1; Dissatisfied = 2; Neither Dissatisfied Nor Satisfied = 3; Satisfied = 4; Very Satisfied = 5.

IV. Results and Discussion

This section presents the analysis of the data collected from the respondents. Table 1 provides the demographic characteristics of the sample

Table 1 Demographic characteristics of the Sample

Demographic factors	Classification	Number of Respondents	Percent
Age (in years)	Below 30	13	23.6
	30-40	11	20.0
	40-50	16	29.1
	50-60	15	27.3
Gender	Male	30	54.5
	Female	25	45.5
Work Experience (in years)	Below 5 years	15	27.3
	5 – 10	12	21.8
	10 -15	12	21.8
	Above 15 years	16	29.1
Income (in rupees)	Below 15000	13	23.6
	15000-20000	15	27.3
	Above 20000	27	49.1

Among the 55 respondents, 16 (29.1 %) belong to 40-50 years age group and 15 (27.3 %) belong to above 50 years age group. 30 (54.5 %) respondents are male. 16 (29.1 %) respondents belong to Above 15 years experience group and 15 (27.3 %) belong to Below 5 years experience group. 27 (49.1 %) respondents belong to Above 20000 rupees income group.

Table: 2 Showing the Mean and Standard Deviation of research variables in different age groups

Age		AQ	Satisfaction
20-30	Mean	66.38	70.0769
	N	13	13
	Std. Deviation	7.467	5.04086
30-40	Mean	64.73	67.6364
	N	11	11
	Std. Deviation	5.729	8.93614
40-50	Mean	70.00	65.3333
	N	16	16
	Std. Deviation	3.578	6.85218
50-60	Mean	70.20	71.4000
	N	15	15
	Std. Deviation	10.798	4.92515
Total	Mean	68.15	68.6296
	N	55	55
	Std. Deviation	7.588	6.75249

A high level of adversity quotient (Mean=70.20) and job satisfaction (Mean=71.40) was observed among the respondents of 50-60 years age group. A low level of adversity quotient (Mean= 64.73) was seen in 30-40 age group and a low level of job satisfaction (Mean=65.33) was seen in 40-50 age group.

Table: 3 showing the Mean and Standard Deviation of research variables in different gender groups.

Age		AQ	Satisfaction
Male	Mean	67.10	67.5172
	N	30	30
	Std. Deviation	9.170	7.38541
Female	Mean	69.40	69.9200
	N	25	25
	Std. Deviation	4.992	5.81607
Total	Mean	68.15	68.6296
	N	55	55
	Std. Deviation	7.588	6.75249

A high level of adversity quotient (Mean=69.40) and job satisfaction (Mean=69.92) were observed among the female respondents.

Table: 4 Showing the Mean and Standard Deviation of research variables in different experience groups

Experience		AQ	Satisfaction
Below 5	Mean	64.60	69.4000
	N	15	15
	Std. Deviation	6.345	6.42317
5-10	Mean	71.00	71.2500
	N	12	12
	Std. Deviation	8.811	4.99318
10-15	Mean	71.00	66.7500
	N	12	12
	Std. Deviation	9.293	7.54532
Above 15	Mean	67.19	67.2667
	N	16	16
	Std. Deviation	4.778	7.44951
Total	Mean	68.15	68.6296
	N	55	55
	Std. Deviation	7.588	6.75249

A high level of adversity quotient (Mean=71.00) was seen among 5-10 years and also 10-15 years experience groups. A high level of job satisfaction (Mean=71.25) was seen in 5-10 years experience group.

Table: 5 Showing the Mean and Standard Deviation of research variables in different income groups.

Income		AQ	Satisfaction
Below 15000	Mean	62.62	68.5385
	N	13	13
	Std. Deviation	4.646	6.33266
15000-20000	Mean	67.33	68.8000
	N	15	15
	Std. Deviation	5.024	7.56118

Above 20000	Mean	71.26	68.5769
	N	27	27
	Std. Deviation	8.383	6.73601
Total	Mean	68.15	68.6296
	N	55	55
	Std. Deviation	7.588	6.75249

A high level of adversity quotient (Mean= 71.26) was observed in above 20000 income group and a low level of adversity quotient (Mean=62.62) was seen in the below 15000 income group.

Table 6 Showing the results of ANOVA test of Research variables and age

		Sum of Squares	df	Mean Square	F	Sig.
Control	Between Groups	33.352	3	11.117	1.023	.390
	Within Groups	554.175	51	10.866		
	Total	587.527	54			
Ownership	Between Groups	21.200	3	7.067	.407	.749
	Within Groups	885.600	51	17.365		
	Total	906.800	54			
Reach	Between Groups	165.370	3	55.123	5.587	.002
	Within Groups	503.175	51	9.866		
	Total	668.545	54			
Endurance	Between Groups	140.418	3	46.806	3.426	.024
	Within Groups	696.782	51	13.662		
	Total	837.200	54			
Aq	Between Groups	287.178	3	95.726	1.730	.172
	Within Groups	2821.659	51	55.327		
	Total	3108.836	54			
Satisfaction	Between Groups	316.191	3	105.397	2.509	.069
	Within Groups	2100.402	51	42.008		
	Total	2416.593	54			

Results of the ANOVA Test revealed that there were significant differences in Reach and Endurance dimensions of AQ among the respondents of different age groups.

Table 7 Showing the results of ANOVA test of Research variables and gender

		Sum of Squares	df	Mean Square	F	Sig.
Control	Between Groups	80.301	1	80.301	8.391	.005
	Within Groups	507.227	53	9.570		
	Total	587.527	54			
Ownership	Between Groups	.293	1	.293	.017	.896
	Within Groups	906.507	53	17.104		
	Total	906.800	54			
Reach	Between Groups	8.439	1	8.439	.678	.414
	Within Groups	660.107	53	12.455		
	Total	668.545	54			
Endurance	Between Groups	8.873	1	8.873	.568	.454
	Within Groups	828.327	53	15.629		
	Total	837.200	54			
AQ	Between Groups	72.136	1	72.136	1.259	.267
	Within Groups	3036.700	53	57.296		
	Total	3108.836	54			
Satisfaction	Between Groups	77.511	1	77.511	1.723	.195
	Within Groups	2339.081	53	44.982		
	Total	2416.593	54			

Results indicated that there was a significant difference in the control dimension of AQ among the male and female respondents

Table 8 Showing the results of ANOVA test of Research variables and income

		Sum of Squares	df	Mean Square	F	Sig.
Control	Between Groups	10.204	2	5.102	.460	.634
	Within Groups	577.323	52	11.102		
	Total	587.527	54			
Ownership	Between Groups	147.437	2	73.719	5.048	.010
	Within Groups	759.363	52	14.603		
	Total	906.800	54			

Reach	Between Groups	195.315	2	97.657	10.731	.000
	Within Groups	473.231	52	9.101		
	Total	668.545	54			
Endurance	Between Groups	118.904	2	59.452	4.304	.019
	Within Groups	718.296	52	13.813		
	Total	837.200	54			
AQ	Between Groups	669.241	2	334.620	7.132	.002
	Within Groups	2439.595	52	46.915		
	Total	3108.836	54			
SATISFACTION	Between Groups	.616	2	.308	.006	.994
	Within Groups	2415.977	52	47.372		
	Total	2416.593	54			

ANOVA test results revealed that there were significant differences in Ownership, Reach, Endurance dimensions, and also Adversity Quotient among the respondents of different income groups.

Table: 9 Showing the correlation among the research variables

		Control	Ownership	Reach	Endurance	AQ	Satisfaction
Control	Pearson Correlation	1	-.156	.138	-.088	.369**	.210
	Sig. (2-tailed)		.256	.317	.525	.006	.127
	N	55	55	55	55	55	55
Ownership	Pearson Correlation	-.156	1	-.119	-.218	.304*	.095
	Sig. (2-tailed)	.256		.385	.111	.024	.495
	N	55	55	55	55	55	55
Reach	Pearson Correlation	.138	-.119	1	.569**	.754**	.274*
	Sig. (2-tailed)	.317	.385		.000	.000	.045
	N	55	55	55	55	55	55
Endurance	Pearson Correlation	-.088	-.218	.569**	1	.627**	.276*
	Sig. (2-tailed)	.525	.111	.000		.000	.043
	N	55	55	55	55	55	55
AQ	Pearson Correlation	.369**	.304*	.754**	.627**	1	.412**
	Sig. (2-tailed)	.006	.024	.000	.000		.002
	N	55	55	55	55	55	55
Satisfaction	Pearson Correlation	.210	.095	.274*	.276*	.412**	1

	Sig. (2-tailed)	.127	.495	.045	.043	.002	
	N	55	55	55	55	55	55
**Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).							

Correlation analysis revealed that there was a significant correlation between Adversity Quotient and Job satisfaction. There was a significant correlation between Reach and Endurance and also between Control, Ownership, Reach, Endurance and Adversity Quotient.

Table: 10 Showing Regression Analyses With Satisfaction as Dependent Variable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.412[a]	.170	.154	6.21210
a. Predictors: (Constant), AQ				

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	409.903	1	409.903	10.622	.002[a]
	Residual	2006.690	53	38.590		
	Total	2416.593	54			
a. Predictors: (Constant), AQ						
b. Dependent Variable: SATISFACTION						

Coefficients[a]					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	(Constant)	43.884	7.640		5.744	.000
	AQ	.363	.111	.412	3.259	.002
a. Dependent Variable: Satisfaction						

Regression analysis was done to investigate the relationship between Adversity Quotient and job satisfaction. F-Test was statistically significant, which means that the model was statistically significant. The R-Squared is .170 which means that approximately 17% of the variance of job satisfaction was explained by the predictor variable, that is, Adversity Quotient.

Major findings of the study include the following: A high level of adversity quotient and job satisfaction was observed among the respondents of 50-60 years age group, and among the female respondents. Significant differences in Reach and Endurance dimensions of AQ were observed among the respondents of different age groups. Significant differences in Ownership, Reach, Endurance dimensions, and also Adversity Quotient were observed among the respondents of different income groups. A significant correlation between Adversity Quotient and Job satisfaction was observed. Approximately seventeen per cent of the variance of job satisfaction was explained by Adversity Quotient.

IV. Conclusion

Adversity Quotient is the capacity of the person to deal with the adversities of his life. It is the ability of the person to bounce back and deal with the situation in his or her own way as not everyone deals with adversity in the same way. The present study was aimed at studying the relationship

between Adversity Quotient and Job satisfaction among the managers of textile industry. A convenience sample consisting of 55 managers working in Textile industry participated in the study. By administering questionnaires adversity quotient and job satisfaction among the managers were assessed. The collected data was analysed with Mean, Standard Deviation, ANOVA, Correlation and Regression analysis. A high level of adversity quotient and job satisfaction was observed among the respondents of 50-60 years age group. A low level of adversity quotient was seen in 30-40 age group and a low level of job satisfaction was seen in 40-50 age groups. A high level of adversity quotient and job satisfaction was observed among the female respondents. A high level of adversity quotient was observed in above 20000 income group and a low level of adversity quotient was seen in the below 15000 income group. There were significant differences in Reach and Endurance dimensions of AQ among the respondents of different age groups. There were significant differences in Ownership, Reach, Endurance dimensions, and also Adversity Quotient among the respondents of different income groups. There was a significant correlation between Adversity Quotient and Job satisfaction. It was found that approximately seventeen per cent of the variance of job satisfaction was explained by Adversity Quotient. Researchers can focus on the factors that influence the Control, Ownership, Reach, and Endurance dimensions of adversity quotient which will help in gaining knowledge about enhancing AQ among employees

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"It is a scientifically proven fact that all scientifically proven facts have originated from original and thereby unproven theories."

— Silvia Hartmann

Impact of Global Economic Crisis on Developing Countries (With a Special Reference to Indian Economy)

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Abstract

Ever growing poverty, unemployment, huge inequality between rich and poor countries are witnessed to the nightmare and failure of world economy first time in the 21st century. The present economic crises across the globe are said to be the result of neo-economic theories such as Thatcher-Regan free market model which dominated world economic philosophy more than 30 years. The series of the current global financial crisis, particularly in USA and the European countries service industry, Automobiles industry and Information Technology and its related services, are become a global threat where it swallows developing countries' economies one by one. Many studies said that this is the result of failure of free market model where the government intervention in trade and commerce is negligible. In a free market economic model, there is a close collision among trade, commerce and Politics which leads to manipulation of market by a few market leaders with the cost of a huge number. In this juncture, this is the time to find out an appropriate solution to cue and accelerate the economic growth. In this paper an earnest attempt is made to study the impact of global economic crisis on developing countries which are often become puppets in the hands of developed countries. This paper speaks in three core areas where the first section deals introduction of the study, the second section deals, heart of this paper, impact of the global economic crisis on developing countries particularly South Asia, Africa and India and the last section speaks out some possible conclusions.

Key words : Economic crisis, Indian economy, global financial crisis

I. Introduction

The global financial crisis has become a full-fledged crisis of the real economy as much deeper than the 'Great Depression' of 1930s. The global recession has set in with all its ill effects on employment, loss of livelihood and houses for people around the world. The demand, especially private consumption, is daily being fall at national and international levels. Investment, output, employment and trade are falling sharply worldwide. Poverty is rising, the middle classes are threatened, and the wealthy and retirees find their assets shrinking dramatically. In most developed countries, new waves of bank rescue packages follow the previous, unsuccessful ones. Conservative central bankers of the USA take on risky assets, their balance sheets and prospective losses swell. Some warn of deflation, others worry that fiscal and monetary stimuli will bring back inflation. Even countries that have accumulated high levels of foreign exchange reserves are concerned by capital outflows, while those without queue at the IMF.

The latest 'World Economic Outlook' (Update in November 2008); suggest that the world economy will grow only at 2% in 2009, with the advanced economies taken together, experiencing negative growth (-0.3%) during the year. The US GDP is projected to contract by 0.7%, Euro Area GDP by 0.5% and UK GDP by 1.3% during 2009. According to the IMF, this will be the first annual contraction, i.e., absolute fall in output, experienced in the advanced economies in the post-war period. All the major capitalist Centers – USA, Europe and Japan – are simultaneously in recession. The unemployment rate in the US had already risen to 6.7% in November 2008, with 18.7,00,000 people jobs being lost there since November 2007. The unemployment rates in France and Germany had risen to 8.2% and 7.1% respectively by October 2008 (ILO). With the recession deepening in 2009, unemployment in the advanced capitalist economies would rise further. The initial response of the Governments in the advanced capitalist countries to the financial crisis was to announce bailout packages for the financial companies, which had made

enormous losses. Recapitalization of private financial institutions with public funds took the shape of part nationalization of several banks and financial companies. This was accompanied by coordinated interest rate cuts by Central Banks across the world. These financial and monetary policy measures, however, have failed to prevent a deepening recession, which is now generally believed to be the worst ever since the Great Depression. The Governments of the advanced capitalist countries are now falling back upon fiscal interventions to salvage the situation. Even the bastion of neo-liberal orthodoxy, the IMF, has recently called for a "large fiscal stimulus totaling 2% of global GDP", to address the crisis. While the $700 billion bailout package announced in the US in October 2008 was primarily meant to compensate the losses made by the private financial institutions and other corporates. After much debate between Britain and Germany, the EU has also adopted a nearly $ 280 billion fiscal package including tax cuts and public spending plans. The crisis is exposing the hazards of neo-liberal economic policies and the advanced capitalist countries are being compelled to resort to direct State intervention as the way out of the crisis. However, the extent of the crisis is such that these fiscal measures may turn out to be insufficient. There is also apprehension that the extent of financial losses by banks and other private companies are yet to be revealed. More financial shocks would only aggravate the crisis and worsen the prospects of economic recovery. All efforts would be made by the rich capitalist countries to shift the burden of crisis on to the third world and for the ruling classes to shift the burden on to the working class and the peasantry.

USA is a root cause for present crisis

The clear victory for Obama was a rejection of the policies of Bush regime. The growing economic crisis which has badly affected the American people was a prime reason for the victory. The American people are more concerned about how Obama will tackle the economic crisis and revive the economy and jobs. History shows that the 'Depression,' it always comes from American 'Wall Street.' A major promoter of globalisation was the Washington consensus based the network of the 'Wall Street,' the US money lending agencies in the Euro-currency markets. Nevertheless, tthe new US Govt. led by Obama is trying to revive the economy, has approved a special $800 billion fiscal package to be spent over the coming years in short-term, and it is estimated around $10 trillion to spend in the long-term in the areas like infrastructural development and housing projects to create new job opportunity and so on. It means each American will intervene with USD 2.25 thousand for helping to bail out firms threatened by the fall-out of sub-prime crisis. However, the White House, the Treasury and the Federal Reserve, who were saying that intervention was inevitable to avoid a financial meltdown, were making the case for a specific kind of intervention that favoured Wall Street. Having made huge profits on speculation big finance wanted the State to pick up the losses when the bubble burst.

Section-II

Impact of global crisis on developing countries

Many developing countries are moving into a danger zone. Growth in developing-countries had been expected to reach 6.4 per cent in 2009, but has been marked down to 4.5 per cent. In the coming period, developing countries will see growing fiscal pressures both on the expenditure side (growing demands for social protection, recapitalization, etc) and the revenue side (as exports and economic activity slow). The appropriate response to falling domestic demand may, in some cases, be a measured fiscal stimulus. However, the credit crunch and flight from risk is already reducing the ability of formerly market-access countries to meet their gross financing needs (rolling over amortized debt and financing their net borrowing requirements). Some developing countries will be hit much harder than the average – experiencing growth which is negative in per capita or even absolute terms. Coming on the heels of food and fuel price shock, the global financial crisis could significantly set back the fight against poverty. Sharply tighter credit conditions and weaker growth are likely to cut into government revenues and governments' ability to invest to meet education, health and gender goals. The poor will be hit hardest. Current estimates suggest that a one per cent decline in developing country growth rates traps an

additional 20 million people into poverty. Already 100 million people have been driven into poverty as a result of high food and fuel prices. Already, sharp cuts in capital flows to developing countries are expected. Even if the waves of panic that have inundated credit and equity markets across the world are soon brought under control, deleveraging in financial markets and an extended period of banking-sector consolidation is expected to cut sharply into capital flows into developing countries.

Private flows into developing countries are projected to decline from $1 trillion in 2007 to around $530 billion in 2009 (or from 7.7 to 3.0 per cent of developing country GDP). The food and fuel price shocks have already imposed large fiscal costs on developing countries, undermining their ability to respond to fall-out from the financial crisis. Policymakers responding to high food and fuel prices made extensive use of tax reductions to offset higher prices and increased spending on subsidies and income support. Data from a recent IMF survey covering 161 countries shows that nearly 57 per cent of countries reduced taxes on food while 27 per cent reduced taxes on fuels. Almost one in five countries increased food subsidies while 22 per cent increased fuel subsidies. Recent declines in food and fuel prices do not imply that pressures and problems have disappeared.

Although most of the hike in commodity prices that occurred in 2007 and the first half of 2008 has dissipated, commodity prices remain above their 2004/05 levels, and currency depreciation is raising the local cost for many food and fuel importing countries. For the very poor, reducing consumption from already very low levels, even for a short period, can have important long-term consequences. The poorest households may have had to reduce the quantity and/or quality of the food, schooling, and basic services they consumed, leading to irreparable damage to the health and education of millions of children. Poor households forced to switch from more expensive to cheaper and less nutritional foodstuffs or cut back on total caloric intake altogether, face weight loss and severe malnutrition.

During 2008-09, higher food prices may have increased the number of children suffering permanent cognitive and physical injury due to malnutrition by 44 million. Many of the country's most exposed to rising global food and fuel prices are those with high pre-existing levels of malnutrition. Financial institutions in developing countries are beginning to suffer from a lack of short term liquidity, as retail deposits exit and non-deposit funding dries up. As the effects of the global recession spreads, the impact will be felt on financial sector asset quality, leading to the need for recapitalization of financial institutions. Lack of liquidity will also reveal underlying weaknesses in regulatory frameworks and in the management of financial institutions, requiring regulatory reforms and capacity building. Tight credit markets in developing countries are rapidly affecting the real sector, especially sectors reliant on trade, finance and working capital.

Impact on the south Asia

While some countries in South Asia had relatively less exposure to the crisis through adverse effects on capital flows, they remain vulnerable to global economic slowdown through export earnings, remittances and external financing of infrastructure. Growth in South Asia decelerated in 2008, falling from 8.6% in 2007 to below 7% based on estimate as of last December 2008. It is projected to decline further to around 6% or below in 2009, before recovering to around 7% in 2010. Even at these reduced growth rates, South Asia stands out compared to the recession in the developed economies. Nevertheless, with 900 million people in developing Asia surviving on $1.25 a day - more than half of those in South Asia - any tempering of growth is a serious case of concern. We believe, there are four inter-related impacts of global economic downturn on Asia. ***First,*** economic slowdown would result in reduction of exports with the attendant effects, not only on export-oriented, value-added industries themselves, but industries across the value chain. This impact could manifest itself in the form of unemployment and a reduction in GDP. ***Second*** by, the impact is being felt through the financial system. By this, we mean that the outflow of foreign direct investment from Asia's financial markets result in depressed domestic equity markets and contribute to conservative lending strategies. ***Third*** by, impact relates to liquidity in domestic financial markets. If credit availability remains constrained, it

is likely to be even more constrained for the lower end of the market, i.e., credit for labor-intensive small and medium enterprises and micro enterprises with its serious impacts. ***Fourth*** by, impact, though not fully evident yet, could be on informal social safety nets by virtue of reduced remittances received from overseas migrant workers as the host country economy slows down and capital expenditures are reduced.

Impact on African continent

The poorest countries of Africa will be significantly affected by the crisis. African countries will be harmed through slower export growth, reduced remittances and lower commodity prices. The crisis may also lead to a reduction in private investment flows, making weak economies even less able to cope up with internal vulnerabilities and development needs. Some African countries are facing serious macroeconomic imbalances quite independently of the financial crisis, mostly brought on the fuel and food crises-such as Ethiopia having 60 per cent inflation and so on. Burundi, Madagascar, Niger, Timor Leste, Ethiopia, Somalia and Yemen are among the ten most affected countries for both stunting and wasting indicators. All of these countries experienced double-digit food inflation during 2008-09.

Impact on the Indian economy

India has already entered into recession though late a little bit compared to west. India's exports had been expected to reach USD 200 billion by 2008, but unfortunately has been marked down to USD 180 billion in December, 2008 (when it was growing 30.9% during the last six months, but it is reported to 12% in December, 2008). According to Mr. Shaktiwel, President of Federation of Indian Exports Organization (FIEO); "India's export share (which is 20% of the GDP) is going down, and it is expected to be 10 million job losses in March, 2009. Indian exporters have mainly been depending on North American and European markets, and both markets have entered into recession. Indian Govt. has announced an extra rescue package (around $4 billion) for the producers and exporters to revive the economy. The Indian financial system has remained relatively immune from the devastating crisis afflicting the advanced capitalist countries, mainly due to the extant regulations and public sector domination of the financial sector. The stock markets have witnessed a meltdown though, with the FIIs being net sellers worth $13.1 billion in the year 2008, which has also led to a decline in India's foreign exchange reserves.

The real impact of global recession on the Indian economy, however, is mainly being felt in terms of a slowdown in exports and industrial growth. Dollar value of exports in November 2008 ($11.5 billion) was almost 10% lower than that in November 2007 ($12.7 billion). The Index of Industrial Production recorded a 0.4% fall in October 2008 compared to October 2007, with the manufacturing index registering a 1.2% fall. The prices of cash crops have also declined adversely affecting the farmers. Job losses have escalated. At least 1, 00,000 gem trade workers have been rendered jobless in Gujarat. It is estimated that around a million jobs have been lost. As per estimates by ASSOCHAM and others in the coming period, job losses will mount to ten million. The economic managers of the Government, who still not so long ago were boasting about attaining 10% GDP growth, have now downgraded their GDP growth forecast to 7% for 2008-09. Economic growth is likely to slow down sharply in 2009. However, the UPA Government has neither learnt the proper lessons from the financial crisis nor is it willing to shed its neo-liberal dogma and adopt effective steps to deal with the slowdown.

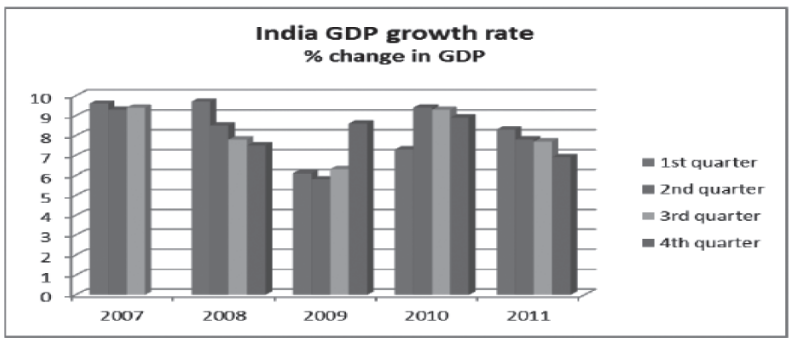
The basic demand was for a fiscal package directed at increasing public expenditure in ways, which increases the income and consumption of working people and ensures broad-based growth. Increased public investment in agriculture, expansion of the NREGA, higher allocations for health and education, infrastructure like rural roads, housing for the middle and lower income groups and universalization of Public Distribution System (PDS) were specifically demanded, apart from a reduction in fuel prices, regulation of organized retail, tariff protection for farmers and small industries and reversal of financial liberalization. A moratorium on job and wage cuts was also demanded.

GDP growth rate

Figure 1 portrays the GDP quarterly GDP growth rate during 2007-201. It clearly

hints the impact of world economic crisis on the development of Indian economy. Economic growth is the increase in value of the goods and services produced by an economy. It is conventionally measured as the percent rate of increase in real gross domestic product or GDP. Growth is usually calculated in real terms, i.e. inflation adjusted terms, in order to net out the effect of inflation on the price of the goods and services produced. Indian GDP growth rate for last five years and for each year quarter growth rate of GDP are compared. It shows that global economic crisis of 2007 had impact on Indian GDP growth rate in the financial year of 2009, where GDP growth rate were lowest in first three quarter of the financial year

Figure 1: GDP Growth Rate during 2007-2011.



Source: www.indiabudget.nic.in

Impact on inflation rate

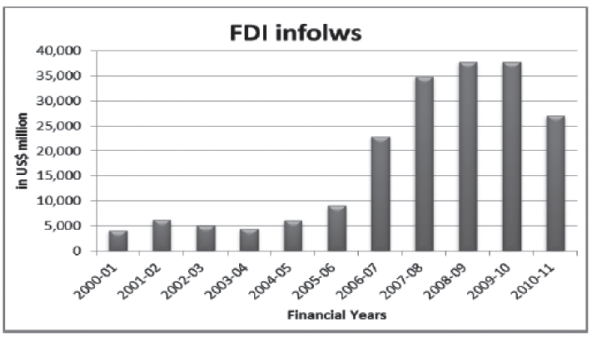
By January 2010, the domestic growth signals were pointing to-wards a consolidation of the recovery process. However, sustained increase in food prices was beginning to spill over to manufactured products. Inflation in primary commodities moved up 8.2 in August 2009 to 22.2 per cent by March 2010. An important concern from the point of view of inflation management is the downward rigidity in the primary food articles prices even after a good monsoon. Moreover, the consumption basket is getting di-versified more in favour of non-cereals items such as milk, meat, poultry, fish, vegetables and fruits, which are important from the nutritional angle. The decomposition of food inflation indicates that during the recent period the key drivers of food inflation are non-cereals. All together Inflation rate is increasing at higher rate.

FDI inflows

Foreign Direct Investment (FDI) inflow into the core sectors plays a significant role as a source of capital, management, and technology in transitional economies. It implies that FDI can have positive effects on the host economy's developmental efforts. As mentioned earlier, India has opened its economy and has allowed the entry of multinational corporations (MNCs) as a part of the reform process started in the beginning of 1990s. Like many other countries, India has offered greater incentives to encourage FDI inflows into its economy. The presence of FDI inflow in India was negligible till 1991, but there has been a steady build-up in the actual FDI inflows in the post-liberalization period. The share of FDI in GDP was merely 0.03 per cent in 1991, which rose to about 3 per cent in 2009-10. Its annual growth during this period was phenomenal. The FDI inflow has been growing rapidly since then with a quantum jump after 2004-05. From US $3250 million in 2004-05, the FDI has leaped to over US $247329 million in 2008-09. However, since February 2008, a reversal in the trend has been observed. A perusal of the monthly inflow of FDI between January 2008 and January 2010 suggests a clear decline over a period of 24 months. The share of agriculture in the total FDI in India is negligible. The recent data show that agriculture accounted for only about 1 .5 per cent of the total FDI inflows into India. In the agriculture sec-tor, die entry of FDI was confined to plantation crops, food processing industries, agricultural services and agricultural machinery. FDI has been allowed in fertilizer manufacturing also, which have a direct bearing on agriculture but was not allowed in the cultivation of crops or rearing of livestock. However, its

entry into the food processing sector can have ramifications on the agriculture sector (though it may be limited). Therefore, though the FDI inflow has slowed down over the past one year, its impact would not be visible on agriculture, as the dependence of agriculture on FDI is minimal (Fig 2).

Figure 2: Foreign Direct Investment During 2001-2011



Source: Compiled from various economic surveys

Export and Import

Global crisis also affect the Indian export-import market. In 2008-09, export-import both had been reduced due to crisis of 2007. In fact in 2009-10 export and import of India reached in negative. Demand for Indian product has reduced in international market as a result export gone under negative in 2009-10.

Price rise and food supply

Though the rate of inflation is going down, there is no reduction in the prices of food items and other essential commodities. People continue to suffer from high prices in retail items. Petrol and diesel prices were marginally reduced by the Government in early December 2008, by Rs. 5 and Rs. 2 per liter respectively, but the reduction was inadequate considering that crude oil prices have come down to below $50 per barrel from the peak of $147 dollar per barrel in July 2008. Further, reduction of oil prices has to be done by the government. Food insecurity has had a devastating impact leading to increased malnutrition and hunger as a direct result of faulty food policies of successive governments. Deaths due to malnutrition and hunger have taken place in tribal areas in Maharashtra and Jharkhand. With the increased procurement of wheat this year, stocks with the government are at 22 million tons; double that of the buffer norm for the month of October. Taken together, the rice and wheat stocks of the government are 29.8 million tons against the minimum combined buffer norm of 16.2 million tones, an 84 per cent surplus over the required buffer. According to data supplied by the Ministry, between 2005-2006 and 2007-2008, the average annual allocation for "Above Poverty Line" ration card holders to the states was cut by 73.36 per cent. Yet, the government refuses to restore the allocation preferring instead to sell the stocks to traders at subsidized rates.

Inadequate Government Measures

The fiscal package announced by the UPA Government on 7th December 2008 increased Plan expenditure by only Rs. 20000 core, which is less than 0.5% of India's GDP. Such a weak fiscal stimulus would not succeed in reversing the slowdown and arresting the consequent job losses and growing unemployment in the economy. The Government primarily relied on tax cuts, like the 4% cut in the CENVAT rate, to stimulate the economy. The Government has failed to link the concessions to industry to conditionality preventing layoffs and retrenchment. The State Governments were totally neglected in the fiscal package. With tax revenues falling due to the economic slowdown, the State Governments are experiencing great difficulties in maintaining the desired level of Plan expenditure. A debt relief package for States along with interest rate subsidy on their borrowings, relaxation of fiscal responsibility norms and greater transfer of resources from Centre to States are required, in order to enable the State Governments to step up expenditure to create jobs and expand welfare measures.

A second stimulus package was announced by the Government on 2nd January 2009. Not a single rupee of additional spending was announced over and above the amount of Rs. 20,000 crore additional Plan outlay announced on 7th December 2008. In fact, the Government ruled out any further increase in public spending in the current financial year. By announcing that further fiscal measures will only be contained in the annual Plan for the next financial year, the UPA Government is shifting the burden of addressing the economic slowdown on to the next Government, after having imported the global recession into the domestic economy by pursuing neo-liberal policies. The Government is basically trying to salvage the situation by infusing liquidity into the financial system through interest rate cuts and other monetary policy measures. It is also doling out tax concessions to the corporates in order to protect their profits and trying to ensure that they do not abandon their investment plans. These measures would not succeed since recessionary fears have already gripped the private corporate sector as well as middle-class consumers, who are cutting down on investment and consumption spending. Neo-liberal dogma prevents the UPA Government from embarking upon a substantial fiscal intervention that can provide some succor to the slowing economy.

What is more disturbing is the fact that in the name of announcing a stimulus package on 2nd January 2009, the UPA Government has pushed further capital account liberalization measures like easing External Commercial Borrowing norms for corporates, especially for the real estate sector. The investment limit for FIIs in corporate bonds has also been raised. This shows that the Government has learnt no lesson from the global financial crisis and continues to repose its faith upon speculative international finance capital. The UPA Government's stubborn refusal to learn from global experiences and its recklessness in pushing ahead with financial liberalization was also visible during the winter session of Parliament when two Bills – The Insurance Laws (Amendments) Bill and The Life Insurance Corporation (Amendment) Bill – were introduced in the Rajya Sabha and the Lok Sabha respectively on 22nd December 2008. The first legislation seeks to raise the FDI cap in the insurance sector from 26% to 49% and allow the same foreign players, who have played havoc with the global financial system, to expand their control in the Indian insurance sector and gain access to the savings of the people. Another amendment is to allow foreign companies in the reinsurance business. These legislations are meant to keep the process of insurance sector liberalization and privatization alive despite the global shift in favour of public ownership of financial institutions in the wake of financial crisis. It is clear that the response of the UPA Government to the global economic crisis would be limited to defending the interests of big businesses, international finance capital and the affluent sections. On the other hand, the working class is coming under increasing assaults in the form of lay-offs and retrenchment. With a deepening recession, prices of agricultural products particularly, cash crops like coffee, rubber, pepper etc. are falling drastically, adversely affecting the peasantry. The brunt of the crisis will be borne by the peasantry and leads to suicides by farmers are recurring. Small-scale producers and traders, especially those in the unorganized sector, would be badly hit.

Section-III

Is a practical solution for the current ills possible?

Though, on 2 April, 2009, the G-20 summit held in London address the current financial crisis. There is no guaranty of bang of world economy once again. Instead of finding of roots of dearth of the economy, they came with some sops for the global economy. If you go throughout history, one can know that people are not ready to learn. There is no doubt in saying that any financial and monetary measures of the USA and EU will bring more inflation, more devaluation of national currencies, more unemployment, more painful losses of the markets and lower prices of export commodities of the developing and poor countries, more unequal exchange. The society is organized on the principle of division of labour if its health is to be ensured, then all the three dimension of an economy namely; production, exchange and distribution should be taken care of. It is, therefore, necessary that production should be guided not by market forces e.g., demand and supply but the need of the society. There were three essential functions to be performed namely; to adept production according to need, to maintain the volume of production up to the limits set by available resources and to distribute equitably the common product among the producers. Production is guided by demand and not by need of the societies and hence it is governed and measured by income, which is very low as compared to need. Again, the level of production is not maintained according

to the existing resources. It was carefully directed by the capitalist proprietors who according to their own wishes, controls its volume and size motivated chiefly by the ideal of maximization of profits. Consequently, the distribution of wealth was unjust and there was exploitation of masses by a few. The diminishing purchasing power of working classes, total consumption fails to keep pace with total production leading to unemployment, further diminishing of purchasing power and ultimately to an intensification of crisis. This leads to in the volume of production of those commodities which the labourers are unable to purchase. Consequently, prices go on falling, size of production is reduced, factories are closed and unemployment is created leading to further crisis.

Developing countries, particularly India has to spend more on areas like housing projects for low-income urban residents, farmers' livelihood and rural infrastructure, the construction of railway, road and airports, education and public health care, ecological construction, technological innovations and disaster relief more systematically. It is an opportunity to change this current global economic and political order. Need to address global imbalances by creating a new global currency, should be widely accepted at international level along with credible insurance mechanisms for countries that forego reserve accumulation and stimulate domestic expansion, along three possible lines: more central bank swap lines; 'reserve pooling'; and a major expansion of IMF resources, together with IMF emphasis on a large, flexible, fast-disbursing facility that would come with little or no conditionality to countries that are adversely affected by global shocks. Accelerate the development of financial systems in emerging markets, in particular local currency bond markets and foreign currency hedging instruments. Promote regional cooperation in the design of common institutional standards for financial market development and work to lift barriers to cross-border asset trade within regions would be helpful to avoid any further economic crisis in future.

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— Robert McKee

Small and Medium Enterprise Promotions for their Growth in Srilanka

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Abstract

Sri Lanka is conducive to start up micro and small enterprises for socio-economic development. The small industries in rural areas are source of employment and production of food in addition to agriculture .Since independent, successive government has been giving great attention to develop the small and medium industries which is backbone for the economic growth and thereby reducing poverty. in1983, 98% of small and medium enterprises only account for 48.6% of total employment and 31.1% of value added while 2% of large enterprises accounts for 51.4% total employment and 68.9% of value added in 1983. However, 93% of small and medium enterprises account for 29.6% total employment and 20.3% of value added in 2008. But, 7% of large enterprises in 2008 account for 70.4% of total employment and 79.4% of value added. In consonance with this statistical analysis, even though small and medium enterprises have accounted for vast percentage of establishment in Sri Lanka, its contribution to the economy is very low. In Sri Lankan experience, medium size enterprises play a role in contributing employment generation and value added in comparison with small enterprises. Thus, it is the fact that there is relationship between size of enterprises and its contribution to the economy which should be further deeply analyzed. Further, even though Sri Lankan government has taken various steps to promote small enterprises in particular and medium enterprises in general, its impact on growth of SMEs is not satisfactory. Thus, another suggests that public private participation (PPP) in regard to SMEs is an effective remedial measure to promote SMEs and enhance their contribution to the national economic development.

Key words: Small and medium enterprises, poverty, employment, value added, contribution

1. Introduction.

1.1 Profile Of Economy

Sri Lanka lies just above the equator between 5°55' N and 9° 55' N and between the eastern longitudes 79° 42' and 81° 52' and is an island located in the South East of India surrounded by Indian Ocean with total land area of 65610 square kilometers in which total population is 21.2 million in 2011. According to the World Bank, the country is gradually approaching the income level of a middle income country. In 2010. GDP per head was US $ 2428. The GDP growth is 3.5% in 2009 and 8% in 2010. Sri Lanka's human development index is by far the highest in South Asia and exceeds that of the rich countries. This level of human development has been achieved through the provision of universal access to health, education and continued investment in the social sectors. Economic development however has lagged consistently behind social development (Vijayakumar, 2010). The country ranks high on the Physical Quality of Life Index (PQLI) and the Human Development Index (HDI). For example, in 1995 the HDI was 0.72. In terms of the PQLI, Sri Lanka is one of the highest in Asia. The country has an infant mortality rate of 9.7 percent in 2011, a high literacy rate of 92.3 percent in 2003, and a high life expectancy of 75.7 in 2011. In terms of production, Sri Lanka is primarily an agricultural country. The main crop is rice. Tea, rubber, coconut, and spices are important commercial agricultural crops. The contribution of the agriculture sector to GDP was 12 % although 24.6%R and D expenditure is spent on agriculture research and development. However, over the past few years the manufacturing industry has grown significantly. Textiles, wearing apparel and leather products are the major industrial products (Central Bank of Sri Lanka,2004,2009). For example, textile, wearing apparel and leather products constituting 44 percent (in 1998) accounted for the largest value of industrial production. The service sector, which included transport, tourism, Communication, trade, financial services, public administration, defense and other services, contributed 50.7 percent of the growth in GDP in 2010. Tourism and financial services play a major role in

the service sector. As mentioned above, in recent years the manufacturing sector appears to have played a prominent role in the economy relative to the other economic activities; especially in terms of expanding production, export, and employment since the introduction of the liberalized economic policies in Sri Lanka in 1977.

1.2 Small and Medium Enterprises

Sri Lanka is conducive to start up micro and small enterprises for socio-economic development. The small industries in rural areas are source of employment and production of food in addition to agriculture .Since independent, successive government has been giving great attention to develop the small medium industries which is backbone for the economic growth and thereby reducing poverty. Enterprise development is almost universally promoted in developing countries, and is often justified on the grounds that the emergence of entrepreneurs is an important mechanism to generate economic growth. As a developing country in Sri Lanka, many enterprises are small and medium scales. SMEs have been identified as an important strategic sector for promoting growth and social development of Sri Lanka. Over the years SMEs have gained wide recognition as a major source for employment, income generation, poverty alleviation and regional development. The SMEs cover broad areas of economic activities such as agriculture, manufacturing, mining, constructions and service sector industries. In the present competitive and challenging global environment, a viable and dynamic SME sector is essential for economic development of developing countries. For the survival of the SME sector in developing countries, support from other sections of society is needed. Most success stories of developed countries come with the private-public synergy. Therefore the private-public cooperation is very important to achieve the success of SMEs. It is the fact that in developing countries, most important and crucial issue is to generate tremendous employment opportunities for the vast labor forces because unemployment problems vitally affect the people that lead to severe poverty ridden condition. Amaratunge (2003) mentioned that employment generation has been first choice than improving technology because poverty reduction can be achieved only by generating new employment opportunities. Thus, small enterprises is a key source to generate more employment not only for skill labour but also non-skill labour. What is the important fact is that labour productivity and labor quality could be greater in medium and large scale industries. Accordingly, for rural population, small and medium enterprises can provide the significant size of employment opportunities of which unskilled labor force could be benefited and thereby increasing living standard of that people. In other words the generation of employment through small industries among the rural poor will be fostering of sprit of people's entitlement and capabilities .Generally, 75% to 80% population of county are living in rural areas in developing countries who mainly rely on agriculture and allied services for their livelihood. Also, in Sri Lanka, 80% of people inhabit in rural and estate sector depending primary sector of agriculture. Even though Sri Lankan government has been spending huge money for poverty alleviation, rural and estate people are still living very low level living standard and poverty stricken nature. Therefore, promotions of cottage, small and medium enterprises have been emphasized by policy makers, government, non-governmental organization and international aid agencies as strategy to achieve high economic growth and poverty reduction. The faith on small industries in economic development other than large scale once that has commenced to emphasize a fresh labor intensive from 1980s.In the context of reducing capital cost in employment generation small and medium industries are more cost less source compared with the large enterprises. Though small and medium enterprises can play crucial role in boosting economic growth and reducing poverty in developed countries in general and developing countries in particular, developing countries where around 80 percentage of population live in rural areas should give their attention and promotion to the small and medium enterprises in general and small enterprises in special because of following grounds.

1. Small enterprises can have dynamic contribution in poverty reduction via generating productive employment. As depicted earlier, as such, skill and unskilled rural people can be benefited from these industries.

2. Without having any proper knowledge in modern management finance controlling or with minimum skills, one can launch the small business with just only common understanding of society.

3.In current globalization context , country can benefit via export oriented small enterprises rather than foreign exchange saving .Particularly, balance of payment problem may be reduced in promoting export oriented small enterprises. In practice, role of small enterprises don't play vital role in alleviation poverty and boosting economic growth in Sri Lanka. In comparison with small enterprises, medium enterprises are providing more employment but not significant in general. Nevertheless, compared to large scale enterprises, role of medium enterprises do not have significant contribution in boosting economic growth and employment generation in Sri Lanka.

II. Definition of small medium enterprises

The definition of SMEs varies country to country, region to region, sometimes within one nation. SMEs can be defined as in terms of many parameters such as the number of persons employed, amount of capital invested, amount of turnover, or a combination of the two or more. It is the fact that there is no single or unique definition in regard to SMEs. The European Union defines SMEs the following way: Small scale businesses consist of fewer than 50 employees and the annual turnover is less than EUR 7 million or the annual balance-sheet total must not exceed EUR 5 million. Medium scale businesses are considered 50-250 people and annual turnover must be less than EUR 40 million or the annual balance-sheet total must not exceed EUR 27 million. In consonance with aforesaid definition, employment, assets and turnover are highlighted. In countries where there are strong SMEs sectors, they are as a rule defined by using the number of employees and size of capital. Japan defines SMEs under three categories including manufacturing sector SMEs, wholesaling sector SMEs, retailing and service sector SMEs. In India, Small Scale Industry (SSI) can be defined as in terms of limits on investment in plant and machinery, excluding investment in land and buildings, testing equipments and anti-pollution measures. As said above, various departments, institution in Sri Lanka also define poverty based on various criteria. The number of employees as the criterion for size appears reasonable because it distinguishes between enterprises regardless the line of business, and the amount of capital investment must be revised frequently due to inflation (Ponnamperuma, 2000). As per the practice adapted by Department of census and statistics in compiling data related to industrial sector, the small establishment are those enterprises less than 25(in year 2000) and less than 10 employees (year 2003/2004) and those enterprises having more than 25 (year 2000) and more than 10 employees (year 2003/2004) as medium and large. Industrial Development Board (IDB) defines a small industry as an establishment whose capital investment in plant and machinery does not exceed Rs.4 million and the total number of regular employees does not exceed 50 persons (Central Bank of Sri Lanka, 1998). The Department of Small Industries (DSI) classifies enterprises with capital investment of less than Rs. 5 million (US$ 52500) and fewer than 50 employees as SMEs. In accordance with World Bank definition, in Sri Lanka, those with fewer than 49 employees are small; those with 50-99 employees are medium enterprises. Generally, the number of employees as a criterion can be more acceptable because other criteria can be affected by inflation.

In accordance with above said definitions, it is the fact that there are no unique criteria or a unique definition for the small medium enterprises in Sri Lanka like other countries. In other words .There is no universally accepted definition of SMEs. Apart from the different criteria, various types of definition were adopted by different official agencies for administrative and statistical purposes (Laksman, etal, 1991).

III. Literature Review

The small and medium industries play significant role in generating employment and has generated eight out of ten employments in America (Birch,1979). Armington and Odle(1982) indicated that Birch had not controlled for the fact that many new small business, owned by large firms, play an important role in generating job. Davis ,Haltiwanger and shah identified several

more flaws in the statistical logic underlying Birch's analysis. Moreover, in newly emerging economies of south east Asia such as South Korea,Taiwan,Malaysia,Singapore has fruitful experience about SMES which played crucial contribution to boost economic growth and thereby reducing poverty. In Korea, large firms provided only 0.7 million jobs while SMEs in this country generated 2.5 million jobs, representing 80% of the total employment in the secondary sector in 1996. Biggs and Shah (1998) put forwarded the view from panel data of five countries in sub-Saharan Africa that large firms in the early 1990s emerge as a dominant source of net job creation in manufacturing in all the countries where there had been net job addition. Many small firms are created as a last resort rather than as first choice and have therefore limited growth potential (Liedholm and Mead, 1987). In fact, there is contradictory argument in regard to role SMEs .In the one hand, SMEs play significant role in boosting economic growth and reducing poverty and rising living standard of their employees i.e America, Germany, South Korea, Taiwan. On the other hand, SMEs does not play the significant role in boosting economic growth, reducing poverty and increasing living standard of workers in many developing countries such as Sri Lanka, Pakisthan, Kenya. Therefore one can observe the fact that the growing body of studies with regard to SMEs indicate that SMEs does not boost employment generations even quality jobs in many developing countries. According to the empirical evidence of micro economic studies, large firms are generating more better and stable employment opportunities, higher wages and non wage benefits compared to small firms in developed and developing countries (Brown,Medoff, Hamilton,1990). Further, most of the studies about contribution of SMEs in the national economy conducted in the developing countries do not support to SMEs in accordance with its offering good salary and stable jobs. Moreover, a wide array of evidence rejects the view that small firms are the engine of job formation (Dunne, Roberts, Samuelson, 1989). In India, over the last 15 years, growth of SMEs has significantly been increasing and there is considerable increase in employment generation and economic growth. Many small firms are more capital intensive than large firm in the same industry (Little, Mazumdar, Page, 1987., Snodgrass, Biggs, 1996) .This suggests that SMEs are not necessarily more suitable to the labour abundance and capital shortage characteristics of developing countries. In terms of job quality, microeconomic evidence does not support the pro-SME view that small firms create better quality job than large firms. Empirical evidence shows that large firms offer more stable employment, higher wage and more non- wage benefits than small firms in developed and developed countries, even after controlling for differences in education, experience(Brown,Medoff, Hamilton,1990). Although the pro-SME view argues that small firms are more innovative than large firms, the micro economic evidence is at the best inconclusive. Financially more developed countries tend to have large firms (Beck, Ross, Norman, 2000). This suggests that financial development eases financial constraints on successful firms and allow them to grow. Therefore, in consonance with existing literature, it is can be concluded that Small medium enterprises are in success in boosting economic growth and reducing poverty and providing quality and better job in developed and newly industrialized countries while SMEs are not in more success in that of most of the developing countries.

Objectives of study

The objective of this study is to find out and analyze the trend and contribution of Small medium enterprises in Sri Lanka. In addition to this objective, second objective is to analyze the remedial measures taken by government to promote small and medium enterprises in Sri Lanka. For this study, secondary data such as central bank reports of Sri Lanka and department of census and statistics reports have been employed .The various years secondary data are compared with each other based on existing literature about small and medium enterprises.

IV. Significance of SME sector in Srilankan economy

As said above, SMEs are significantly contributing to the economic growth and poverty reduction in developed countries in general and developing countries in particular. This is not different in case of Sri Lanka but its potential contribution on Sri Lankan economy is questionable because of

various defects that occurred in the country. As India and other developing countries, SMEs accounts for high percentage of establishments in the total number of establishments in Sri Lanka. But contribution of SMEs to the employment generation and value added in India is very high in comparison with that of Sri Lankan economy. In other words, even though Sri Lanka has vast number of industrial establishments of SMEs in total establishment, its contribution to employment generation and value added is very low which hinder the economic growth and poverty reduction. Therefore, large scale enterprises located in urban areas, especially in western province, play significant contribution to the employment generation and value added in Sri Lanka. Thus, it is the fact that full potential capacity of SMEs has not been used to the development of the country. The table 1 clearly shows the contribution of SMEs to the economy in terms of employment, value added in years of 1983, 1996, 2006 and 2008.

Table1 Relative size of SMEs in Sri Lanka

Size of class	1983			1996			2006			2008		
	No of Estab(%)	No of Emp(%)	Valu add(%)	No of Estab(%)	No of Emp(%)	Value add(%)	No of Estab(%)	No of Emp(%)	Valu add(%)	No of Estab(%)	No of Emp(%)	Value add(%)
Small	86.6	29.2	11.3	70.7	8.6	4.1	65.9	12.2	5.7	63.0	10.2	4.7
Medium	11.4	19.4	19.8	20.1	14.0	8.4	25.9	27.5	26.1	30.0	19.4	15.6
Large	2.0	51.41	68.9	9.2	77.4	87.4	8.4	60.2	68.2	7.0	70.4	79.7
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: Department of Census and Statistics Abbriviation:No of esta-number of establishment, No of emp-number of employment, value add-value added

It is the fact that SMEs play crucial role to the economic growth in developed countries in general and developing countries in particular. But, in Sri Lanka, there is difference experience in regard to contribution of SMEs to the economic growth of the country. In other words, contribution of SMEs on the Sri Lankan economy is not significant which does not lead to high economic growth and reduction of poverty. According to the table 1, small enterprises accounts for 86.6% of total establishments in 1983.But, even though there is significant number of small enterprises in Sri Lanka, its contribution to the employment and value added is 29.2% and 11.3% respectively. There are 11.4% of Medium industries which accounts for 19.4 %of total employment and 19.8% of value added. According to this statistics, in1983, 98% of small and medium enterprises only account for 48.6% of total employment and 31.1% of value added .It is the important fact that 2% of large enterprises accounts for 51.4% total employment and 68.9% of value added in 1983. On the one hand, successive years, contribution of SMEs has decreased in Sri Lanka .On the other hand, contribution of large enterprises has continuously increased. In 2006, percentage of establishment of small enterprises is 65.9% and its contribution to the employment is 12.2% and 5.7% for value added. There are 25.9% medium enterprises which has accounted for 27.5% of the total employment and 26.1% of total value added. Though percentage of large enterprises is 8.4%in 2006, its contribution for employment and value added is 60.2%and 68.2% respectively. It is the general observation that there are 91.5% of small and medium enterprises which account for 39.7% of employment and 31.8% of value added in 2006. However, 93% of large and medium enterprises account for 29.6% total employment and 20.3% of value added in 2008. But, 7% of large enterprises in 2008 account for 70.4% of total employment and 79.4% of value added. In consonance with this statistical analysis, even though small medium enterprises have accounted for vast percentage of establishment in Sri Lanka, its contribution to the economy is very low. In comparison with small business, contribution of medium enterprises is significant and insignificant compared with large enterprises in Sri Lanka. What is the important fact is that India is a neighbor country of Sri Lanka in which SMEs play crucial role in the economy, particularly; small sector growth is significant in India. Therefore, it can be concluded that although there are significant number of SMEs in Sri Lanka, their contribution to the national economy in terms of employment, output, value added has been very low. However, in developed countries and newly

developed countries, SMEs have contributed significantly to the economic growth and poverty reduction. Particularly, role of SMEs in boosting economic growth and reducing poverty of Sri Lanka is to be analyzed with giving great attention for determinants of poverty. Even though small medium enterprises has significantly contributed to the generating employment, bringing about income distribution and boosting GDP in the developing and developed countries in the region, its contribution on national economy of Sri Lanka is questionable and not satisfactory.

Table2 Share of SMEs in total no. of establishments, employment and value added in 2006

Type of industry	Establishment%			Employment%			Value added%		
	Small	Medium	Large	Small	Medium	Large	Small	Medium	Large
Mining	91.1	6.3	2.6	46.9	14.3	38.9	59.8	11	29.2
Food, beverage	63.6	30.35	5.96	17.2	38.55	44.2	6.75	29.6	63.7
Textiles, apparel	53.1	35.2	11.7	12.5	33.2	54.3	3.3	18.3	78.3
Wood and other products	85.5	14.5	-	41.9	58.1	-	45.7	54.3	-
Paperand paper products	36.4	46.8	16.9	8.9	45.0	46.2	2.2	25.1	72.7
Chemical, petroleum	62.9	21.7	15.4	9.8	23.7	66.5	3.7	28.3	68.0
Non-metallic minerals	80.8	15.5	3.7	31.2	31.8	37.0	18.4	37.6	44.0
Basic metal products	42.0	34.4	23.6	7.1	31.8	61.0	0.7	30.0	69.2
Fabricated metal	73.8	19.6	6.6	25.3	38.9	35.8	23.9	37.5	38.6
Manufactures n.e.c.	41.7	27.8	30.5	22.16	26.3	51.5	19.7	26.9	50.7
Average%	65.78	25.21	9.1	22.29	34.16	43.3	18.4	30.1	56.1

Source: Department of Census and Statistics

In consonance with table 2, average establishments in small enterprises is 63% in 2006 but it has contributed 22.29% of total employment and 18.4% of value added (Note: including cottage and micro enterprises).In case of medium enterprises, its average establishment is 25.22%, its average contribution to the employment is 34.16% and 30.1% for value added. What is the important fact is that average size of large enterprises is 9.1% but its contribution to the employment is 43.33% and its value added is 56.1%. Further, SMEs have more establishment in food and beverage, wood and other products, Non-metallic minerals, textiles and apparel. Even though small and medium enterprises has significantly contributed to the generating employment, bringing about income distribution and boosting GDP in the developing and developed countries in the region, it is the fact that its contribution on national economy of Sri Lanka is questionable and not satisfactory.

The contribution of small and medium enterprises to the employment generation and value added is somewhat high in table two while comparing the of SMEs' contributions in table one. The reason is that there are some flow in SMEs' secondary data base such as frequent changes in defining the small and medium and large enterprises, too aggregative nature of the data, non-continuity of surveys, many organization getting involved in SMEs data compilation, etc.

Different institutions in Sri Lanka defining the SMEs in different manner even based on same criteria, researchers those interested in research of SMEs are undergoing difficulties in compiling the data for their analysis. For instant, in table 1, those enterprises having between 5-29 employees were considered as small and those enterprises employ 30-149 employees as medium enterprises. In table 2, those enterprises employing less than 29 persons (micro and cottage enterprises are also included) were considered as small. Notwithstanding the data gathered by Department of Census and statistics are expected to be more reliable and realistic, these data also do not afford exact data of contributions of SMEs alone due to various flow in gathering and compiling the data. Sardana and Dasanayaka (2009) indicated that SME data in Sri Lanka is fragile due to various reasons such as defects of definition of SMEs, non-accessibility of some regions due to ethnic war, etc. It is too difficult for researchers who are going to employ the secondary data of SMEs of Sri Lanka because time series of secondary data and data including all sub-sectors are not available for frequent years in addition to afore said defects. What is note worthy here is that some time, some data of sub-sectors are not available but aggregate data are available. In this study, as indicated above, definition of SMEs based on number of employees is different in table 1 from table 2.

Promotions of small and medium enterprises

Minna (2007) emphasized a Policy and Operational Guidelines for PPP for growth of SMEs . The guidelines points out what PPP is and its special features, ways of PPP and its benefits etc. The concept of PPP has evolved for centuries in the USA and Europe but has become more prominent in recent decades in local economic development. PPP is the idea of bringing in private finance to finance public sector infrastructure originated with the early occurrences of PPP. It is further referred to as a contractual arrangement between a public sector agency and a for-profit private sector concern, whereby resources and risks are shared for the purpose of delivery of a public service or development of public infrastructure. PPP arrangements are growing in use and acceptance as an alternative and effective method to organize additional financial resources and benefits from private sector efficiencies. There is no private sector participation in building up infrastructural facilities in Sri Lanka. Generally, small and medium and large enterprises in Sri Lanka think that government has full responsibility in the poverty alleviation, infrastructural development and social development. It is entirely wrong notion which hinder the overall development of country. There has been no macro-level policy for the development of the sector although there have been some incentives provided by different programs until late1950s. However, recently there have been a large number of institutions directly involved in the promotion of the small business sector in Sri Lanka. The large numbers of government organizations which provide a variety of assistance to small enterprises. Their assistance vary from formulating policies, strategies, and programs such as providing credit, training, technology, marketing sub-contracting, and management. In addition to the government organizations, there are a large number of NGOs involved in the promotion of the small business sector by providing various types of assistances .Many of them were set up after the 1977 reforms. Government of Sri Lanka has taken various measures to promote the SMEs which are as follows.

1. Ceylon Institute of Scientific and Industrial Research (CISIR): To enhance the productivity and innovation of SMEs , technology can play vital role. Thus, the establishment of the Ceylon Institute of Scientific and Industrial Research (CISIR) was established in 1955 which has contributed to the development and dissemination of appropriate technology to enhance the efficiency and productivity of SMEs. Over the years, the CISIR has catered for technology requirements of cottage and small scale industries especially in the areas of agro- and food processing and preserving, wood and wood products, leather products, chemical products, and paper and paper products.
2. The Ministry of Youth Affairs, and Sports: The ministry of youth affairs and sports is the main policy making body relating to youth and

youth development in Sri Lanka. It conducts some small enterprise development programs, especially focused on the youth of the country. There are two programmes such as Small Entrepreneurship Development Division and National Youth Co-operatives (NYSCO) under this ministry. The self-employment programs assisted by the Ministry of Youth Affairs and Sports (MYUAS), as well as several non-government organizations (NGOs) and private institutions have also helped the promotion of the SME sector in the country. In this respect, a separate Small Enterprise Development Division (SEDD) was established under the Ministry of Youth Affairs and Sports in 1984 with the objectives of formulating strategies and policies for stimulating self-employment and small scale enterprises

3. Department of Rural Development and Cottage Industries: The Department of Rural Development and Cottage Industries was established in 1957 as the main institution responsible for promoting the cottage industrial sector. The Department was renamed as the Department of Rural Development and Small Industries in 1968 and its scope of activities was expanded to include industries such as power looms, hand looms, carpentry, commercial pottery and coir fiber. In 1993, the Department of Small Industries was wounded-up and its duties and functions were allocated to the provincial councils.

4. Industrial Development Board (IDB): With the main objectives of encouraging, promoting and developing SMEs in Sri Lanka, the Industrial Development Board (IDB) was established in 1969. The IDB is considered to be the chief industrial extension institution in the country and was armed with regional offices and industrial extension offices. The Board is the principal SMB development institution and is responsible for the development of sub-sectors other than textile and cottages industries. They provide various facilities including technical assistance and consultancy, demonstrations, engineering services, skills training, research and development. One of its major programs is 'industrial Estates'. In addition, the IDB encourages and promotes 'Samurdi'28 recipients to start -up self employment ventures.

5. Sri Lanka Handicrafts Board (SLHB): The purpose of the SLHB is to protect handicrafts industries. The board is helping marketing and export promotion of handicrafts. The SLDB has 17 retail shops and 227 Crafts Training/Production Centers. They provide training, counseling services, technology and marketing assistance. More recently the Board, through its network, buys handicraft items from over 3000 regular suppliers.

6. National Design Center (NDC): The NDC provides information and marketing, training, technical and design assistance for small entrepreneurs engaged in the production of handicraft items. The Center helps in the development of appropriate new designs and products introducing efficient methods and technology. It also provides information and marketing facilities for handicraft producers.

7. National Craft Council (NCC):The purpose of the Council is to preserve and develop the traditional craft sector. It provides training, financial support and assistance in official registration and securing bank loans to artisans and other micro level entrepreneurs towards realizing those aims.

8. People's Bank and the Bank of Ceylon: The establishment of People's Bank and the nationalization of Bank of Ceylon in 1961 were land marks in providing institutional credit to SMEs. Bank of Ceylon branches and its sub offices at Agrarian Services Centers provided credit facilities under special programs to SMEs. Some domestic private banks have also introduced special facilities to these industries with the expansion of their branch network

9. Laksala: With the objective of helping

to solve marketing problems of handicraft industrialists, "Laksala" was established in 1964. With a view to promoting the export orientation of the Small Business sector, the Department of Handicraft Marketing and Export Promotion was established in 1980 by amalgamating Laksala and other handicraft marketing centers. In 1982, Sri Lanka Handicraft Board was established in place of this Department.

10. Department of Textile: In 1976, the Textile Department was created in view of the importance of textile production as a small industry. It provides cash grants and other financial assistance, marketing assistance, skill training and other production related advice and training.

11. National Development Bank (NDB): In 1979 the Government established the National Development Bank with the primary objective of providing project finance for large industries, agriculture and commerce. A secondary objective was to ensure that small industrialists are given access to project finance on the same terms and conditions as afforded to large borrowers. Accordingly, the Small and Medium Industries Loan Scheme was initiated in 1979.

12. Regional Rural Development Bank (RRDB) :The establishment of the Regional Rural Development Bank (RRDB) in 1985 made available an additional credit outlet to the small scale business sector. Several micro credit schemes were implemented by these banks. The Janasaviya Trust Fund, the Samurdhi Development Loan Scheme or SAHANA for Samurdhi beneficiaries and "Surathura Diriya" also provide financial assistance to this sector.

13. Enterprise Promotion Bank (SME Bank): The government of Sri Lanka has realized the importance of SMEs for its economy and as a result, it has taken the initiative in setting up a new licensed specialized bank called the SME Bank in year 2005. The purpose of establishing the SME Bank is to promote the micro, Small and Medium enterprises via the provision of financial and technical assistance on a vigorous and sustainable basis.

14. Small and Medium Industry Credit Scheme: The small and medium industry (SMI) credit scheme was initiated in 1979. Under the scheme, the Central Bank guarantees the Participating Credit Institutions up to around 65%. The loan is provided both for setting up new enterprises and expansion of existing ones.

15. Department of Labour: The Department assists landless rural poor and independent artisans in the context of SMEs in both rural and urban areas, and mainly provides skill training and other assistance related to production.

Despite the number of institutions have been established to promote the SMEs, it is the fact that there is no significant co-ordination of activities among the existing organizations in Sri Lanka. Thus, effectiveness of SMEs on economy is not considerable. Further. A strong relationship exists between the quality of business environment and long-term national economic performance, including pace of poverty. In Sri Lanka, business and political environment is not conducive for the development of small and medium industries. Although a large number of institutions provide a variety of assistance, Lakshman et al. (1991) stated that the existing structure of institutions involved in SMEs policy is an extremely complex one, with substantial overlap and duplication of functions which may even create rivalry among different institutions. The lack of an effective co-coordinating mechanism in this respect precludes the emergence of an integrated overall SMEs policy with a consistent direction of purpose (Lakshman, et al., 1991).

V. Conclusion

Even though SMEs play important role in both developed and newly industrialized countries, it is the observable fact from available statistics is that role of small medium enterprises do not play significant role in changing poverty status nationally

and improvement of living standard of their workers in Sri Lanka. In other words, direct contribution of small medium enterprises in changing poverty status and boosting economic growth is questionable. For instance, in1983, 98% of small and medium enterprises only account for 48.6% of total employment and 31.1% of value added while 2% of large enterprises accounts for 51.4% total employment and 68.9% of value added in 1983. However, 93% of small and medium enterprises account for 29.6% total employment and 20.3% of value added in 2008. But, 7% of large enterprises in 2008 account for 70.4% of total employment and 79.4% of value added. In consonance with this statistical analysis, even though small and medium enterprises have accounted for vast percentage of establishment in Sri Lanka, its contribution to the economy is very low. In comparison with small business, contribution of medium enterprises is significant and insignificant compared with large enterprises in Sri Lanka. Even though providing job by SMEs for labours has somewhat decreased the severity of poverty of employees, there is still very low level living standard of employees working in SMEs. Thus, there is urgent need to further improve the inherent capabilities of the SMEs in order to enhance their role in the economic growth and poverty reduction. Therefore, active private public participation is needed to accelerate the growth and improvement of SMEs and thereby, its contribution to the economy can be enhanced like developed countries.

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A scholar must not only be capable of hard, often totally resultless work - he must actually relish it."

— Richard D. Altick, The Art of Literary Research

Impact of Behavioral Style, Self Orientation and Task Orientation of Leaders on Employees' Motivation

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Abstract

It may not be an exaggeration to state that a Leader has deep influence upon the motivation of the employees. There are two aspects of leaders' behavior i.e. firstly, the style he adopts in his decision making, commonly called as Leadership Style in Management parlance and secondly, the motive or the orientation towards various dimensions of his work. In organizational context a leader can have various dimensions, i.e. towards self, towards employees, towards organization (vision) and towards the situation in which he is operating. All these dimensions can operate on parallel paths. These dimensions have been termed as leaders' orientation for the purpose of this study. The orientation of a leader is different from his behavioral style. For instance, a leader can be highly self-oriented and yet may adopt a democratic style of behavior to accomplish the task at hand. Although plethora of studies on leadership styles is available in Management Literature, yet there are few studies through which impact of leadership style, in conjunction with leaders' orientation factors, on employee motivation has been attempted. This research study has tried to study the meaningful interaction between the Leadership Style and its combination with two 'Orientation factors of the leaders i.e. Self-orientation and Employee/Task-orientation and their combined impact upon the motivation of the employees, through empirical data collected from various Public and Private Sector Enterprises in Bhopal. It is found that the above two factors had a significant correlation with the employee motivation in combination with the Leadership Styles. It has also been found that in both Public Sector and in Private Sector Enterprises High Level of Self Orientation would result in low level of Motivation of Employees. Through scientific analysis of empirical data it is established that in Private Sector Enterprises the combination of autocratic leadership style and task-orientation behavior generates highest motivation level while the Leaders with Bureaucratic Leadership Style and task-orientation generate lowest level of Motivation. In Public Sector Enterprises, Paternalistic Leadership Style combined with People-orientation result in highest level of Motivation in employees while Autocratic Style combined with task-orientation generate lowest level of Motivation.

Keywords: Leadership style, critical success factors, orientation, motivation, impact, public sector, private sector

I. Introduction

Presuming, almost in certainty, that Motivation is a quintessential function of the Leaders, it is perceived that in the changing global scenario demands of group of employees have become perplexing and more varied. In this context it would be interesting to study whether only the behavioral styles of the leaders are important or other factors like motive or the attitude of leaders are also pertinent. The Business Leader's actions explain WHAT he is doing, his behavioral or leadership style would explain HOW he is doing and his orientation or his motive would explain WHY he is doing. This WHY factor has largely remained elusive in integrated Leadership literature. These factors are nothing but the 'Critical Success Factors' which are, basically the success formula for leader's effectiveness prescribed by various leadership theories. These Critical Success Factors when inculcated by the leaders have been termed as 'Orientation factors', since they represent orientation of the leaders towards self, people (employees), organization (vision) and the situation (situational perspective). Thereupon, a three-purposed study has been attempted i.e. assessing the impact of Leadership styles upon employee motivation, assessing the impact of leadership style in combination with 'Orientation Factors' and further, finding out best style-orientation combination in respect of motivation of employees.

Aims and Objectives of This Paper

The aims and objectives of this paper can be summarized as follows:

a. Bringing out the 'Critical Success Factors' embedded in leadership theories through Review of Literature and discover the Orientations of the leaders through these factors.

b. To study the existing behavioral styles of Leaders/Managers of Public sector and Private Sector enterprises in conjunction with their 'orientations' and their combined impact upon employee motivation

c. To find out the best Leadership Style and Orientation combination in Public Sector and Private Sector Enterprises, especially with reference to Self and People/Task Orientation

II. Review of Literature

In order to find out the 'Critical Success Factors' and various orientations of leaders, each type of Leadership theories was studied through existing literature which is deliberated and summarized as below:

Trait theories

Trait theories assume that the capacity for leadership is inherent. In Heroes and Hero Worship (1841), Carlyle identified the talents, skills, and physical characteristics of men who rose to power. Abraham Zaleznik, who revisited this theory, contends that managers tend to favor maintenance of the status quo, leaders seek to transform what is into what should be. He believed that managers and leaders differ in terms of their personalities. "Level 5 Leadership," theory by Jim Collins (2001), is another avatar of the trait approach. He proposes that Level 5 leaders are ones who transform a good organization into a great one. He says that such leaders possess 'paradoxical combination of traits' i.e. extreme personal humility with intense professional will. Hence, the focus of the Trait theories is on the leaders' 'Self'. The trait theories prescribe the Leaders to be less self-oriented and visionary in order to succeed.

Contingency Theories

Contingency theories of leadership focus on particular variables related to the environment that might determine which particular style of leadership is best suited for the situation. Fred Fiedler was pioneer in this concept of Leadership style effectiveness in various Situations. In his work, 'A Contingency Model of Leadership Effectiveness; Journal for Advances in Experimental Social Psychology', he established the relationship between the leader's style and group performance under differing situational conditions. Fiedler suggests, first, to assess the characteristics of the leader through Least Preferred Scale (LPC), secondly, to evaluate the situation in terms of key contingency variables and finally, to seek a match between the leader and the situation.

Lorsh stipulates that effective leadership is dependent upon the relationship between the leader and his followers. Followers follow leaders because of three situational variables i.e. alignment between the leader's goals (personal and organizational), values and expectations of followers, valid two-way communication between leaders and followers and appropriate sources of leader's power and influence in the relationship.

Thus, the major factor for effectiveness of a Leader is the Situation and hence, can be concluded that in all contingency theories Leader's situational perspective is the Critical Success Factor.

Behavioral Theories

Behavioral theories of leadership are based upon the belief that great leaders are made, not born. In the decade of 40's and 50's, University of Michigan and Ohio State University began to systematically look at the behaviors exhibited by effective leaders. In his work, carried out under the aegis of University of Michigan, Rensis Likert, concluded that leadership styles are either Production or Employee orientated. Blake and Mouton also studied leadership behaviors and described two extremes of leadership concerns i.e. concern for people and concern for production.

In all the behavioral theories it is quintessential that the people's need be addressed in order to be effective. This in turn means that People Orientation is the key to success as per this set of tenets.

Participative Theories

Participative leadership theories suggest that the ideal leadership style is one that takes the input of others into account. These leaders encourage participation and contributions from group members and help group members feel more relevant and committed to the decision-making process.

Likert (1967) identified four main styles of leadership, in particular, around decision-making and the degree to which people are involved in the decision. These styles are Exploitative Authoritative, Collaborative Authoritative, Consultative and Participative Styles of Leadership. The degree of participation is the key to success which in turn makes it clear that People Orientation is Critical Success Factor. Participative decision making can yield different results in case of Managerial and Non-managerial cadres.

Management or Transactions Theories

These theories base leadership on a system of rewards and punishments. In their book "Taking the Lead in Patient Safety: How Healthcare Leaders Influence Behavior", Thomas R. Krause and John H. Hidley have succinctly summarized the forms and styles of a transactional leader. They say that

- Transactional Leader can be active or passive. In its active form the leader takes the initiative to communicate expectations and then monitors and reinforces performance. In the passive version he waits until something goes wrong and then responds with appropriate consequence. This is corrective transactional leadership.
- Transactional leadership is essentially conservative. It aims to get things done within the current context and is best for stable environments.
- The transactional leader makes expectations very clear, monitors performance and reinforces successes.

Eisenberger (1992) suggested that when rewards are given for achievement of performance standards it results in higher level of motivation and learned industriousness which in turn encourages the employee to put more effort. Hence, it may be inferred that a good transactional leader creates conditions that coordinate leader's self-interest with those of his subordinates. The key to success of a transactional leader lies in his conjoining his own and subordinates' needs. Thus high self-orientation of a leader as well as his High People orientation are 'Critical Success Factors' for Transactional theories.

Relationship or Transformation Theories

These theories focus upon the connections formed between leaders and followers at an emotional level. Transformational leadership can be seen when "leaders and followers make each other to advance to a higher level of moral and motivation." Burns, J.M. (1978). According to Bass, transformational leadership can be defined based on the impact that it has on followers. They garner trust, respect and admiration from their followers through their charisma. (Bass,B. M,(1985), Leadership and Performance.).

These leaders have innumerous power, which also can be a potential danger in organizational context if such leaders have their focus on themselves. Thus in such transformational theories a Low Self-orientation, High People Orientation and High Vision orientation or Visioning ability become the Critical Success factors.

The above discussions are hereby presented in summarized Table form:

Table 1 Critical Success Factors of Various Theories of Leadership

Sl	Leadership Theory	'Critical Success Factors'
1	Trait Theory	Low Self orientation and High Vision Orientation
2	Contingency Theory	Situational Perspective
3	Behavioral Theory	People Orientation
4	Participative Theory	People Orientation
5	Management/ Transactional Theory	High Self and People Orientation
6	Relationship/ Transformational Theory	Low Self Orientation, High People and High Vision Orientation

It is clear from the above table that the Leaders have various dimensions of behavior which are pertinent for organizational effectiveness. These dimensions are self-orientation, employee/task-orientation, vision-orientation and situational perspective. It is clear from the table that different combination of these factors have been prescribed by various theories for organizational effectiveness.

III. Research Problems

As such upon the identification of 'Critical Success Factors' (Table 1) of each theory type and orientations of the leaders, the following research questions are derived and are, hereby, stated which have arisen in order to achieve objectives of the study,

Research Questions

- Does Leadership Style has any Impact upon Employee Motivation?
- Does Leadership Style has any Impact upon Employee Motivation in combination of 'Orientation Factors' on motivation score of employees. If yes, then which of the factors impact the most? What is the impact of age of the leaders and employees upon the motivation of employees when combined with Style and Orientation Factors.
- Which combination leads to highest and lowest motivation in Private vis-à-vis Public Sectors ?

Hypotheses

Hypothesis framed on the basis of the above research questions are stated hereunder:

There is no impact of leadership styles and their interactions on motivation score of an employee.

The combination of leadership style with self orientation does not have impact on employees' motivation score and further that the combination of this variable and sector does not have impact on employees' motivation score.

The combination of Employee/task orientation with leadership style does not have impact on employees' motivation score.

The combination of Vision orientation with leadership style does not have impact on employees' motivation score.

The combination of Situational Perspective with leadership style does not have impact on employees' motivation score.

Research Methodology

The research problems, once set, led to data collection and selection of appropriate research methods. In all 126 employees and 35 leaders from different sectors have been targeted and the same have been analyzed further with the help of SAS (Statistical Analysis System) software. Total 5 Questionnaires consisting of 70 questions were administered upon the leaders for assessing Leadership Styles, Self Orientation, People Orientation, Vision orientation and Situational perspective of the leader. Further, a questionnaire consisting of 14 questions was administered upon 126 respondents who were reporting to the above 35 leaders. The data was collected from three Public Sector Units i.e. BHEL, Bhopal, Syndicate Bank and M P Sahkari Dugdh Sangh and three Private Sector Units i.e. GVK, EMRI Bhopal, MP Mahila Kalyan Samiti and Adarsh Private Limited and was subject to following statistical tests. While collecting the data from leaders, effort was made to keep uniform distribution as far as level of leaders are concerned. Out of the 35 leaders 10, 14 and 11 managers belonged to Junior, middle and senior management categories.

Normality Test: Before doing Analysis of Variances ANOVA, normality test was accomplished to assess the likelihood that the data came from a normal distribution.

Analysis of Variances (ANOVA): This test was carried out to understand which factors such as sector, age, sex, etc., and their interactions have significant effect on corresponding scores for statistical comparisons.

Correlation Analysis: To understand which factors from the leaders has direct effect and could be correlated to the employee's score, correlation analysis was applied. The result of this test is particularly important to explain which quality of leaders can have direct impact on employee' motivation or output.

Stepwise Linear Regression Analysis : This test was carried out to complete the previous

analysis and to discover which factors from the leaders, for each employee, are important and can change the employees' score and which ones are less important and could even be eliminated from further studies and model.

Collection of data : The researchers collected data using a sample from three Public Sector Units (BHEL, Bhopal, Syndicate Bank and M P Sahkari Dugdh Sangh) and three Private sector Units (GVK,EMRI Bhopal, MP Mahila Kalyan Samiti and Adarsh Private Limited). A deliberate attempt was made to

select organizations from variety of fields so as to have a leadership pattern

which is heterogeneous in nature. From Engineering Industry BHEL was taken, while from Cooperative sector(supported by Government) MP Sahkari Dugdh Sangh was chosen. From Banking sector, Syndicate Bank wastaken while from Print industry, Adarsh Pvt. Limited was chosen.

The sample was predominantly from Bhopal city ranging from 20 to 60 age group. The geographical area is restricted to Bhopal city only. In order to test the hypotheses, a multilevel longitudinal research design was employed.

In order to minimize the possibility of social desirability biases and encourage honest responses, the participants were informed that their responses would not be seen by their supervisors.

Fig. 1 Leadership Style wise Number of Employees and their Motivation Level

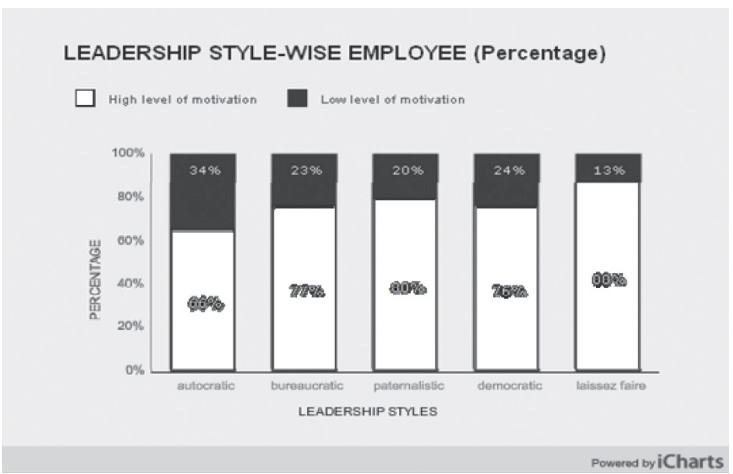

Fig. 2 Leadership Style wise Number of Employees and their Motivation Level (percentage)

IV. Data Analysis and Findings

Data was collected for measuring 'Leadership style', checking the presence of various 'Orientation Factors' in the Leaders and Motivation score of employees through Questionnaires. The same is presented as below:

From the above two Graphical Presentations a general trend is observed that as the control administered by the leader upon employees' actions is reducing the motivation level keeps increasing.

Prior to the testing of Hypothesis, Normality Test was applied to the data in order to assess the likelihood that the data came from a normal population. In most cases the distribution was normal or close to normal. Hence, original data were used in entire study and for all different analyses without any transformation. Thereafter, Analysis of Variance with Multiple comparisons were performed on in order to test the hypothesis.

Impact of Leadership styles on motivation score of an employee independently and with the combination of Sector, i.e. Public and Private Sector Enterprises

It was found that the main effects of sector was significant at <.0001, but the main effect of leadership style was not. The interaction between these two independent variables were also significant at 0.0043 level, which meant that hypothesis was rejected by ANOVA test for sector and the interaction, but it was accepted for the Leadership style. Consequently, different Leadership styles do not have any effect on employee's score, however, their combination with different sectors have significant influence on employee's score. This is significant as the result implies that the Leadership Styles in Public Sector Enterprises have to be different from Private Sector Enterprises in order to achieve the same impact on Employee Motivation

Table 2 Impact of leadership style together with Sector variable factor on employees' motivation

Duncan Grouping			Mean	Sector
	A		67.5	Private Autocratic
B	A		64.3	Private Paternalistic
B	A	C	61.3	Private Laissez
B	A	C	60.6	Public Paternalistic
B		C	59.3	Private Democratic
B		C	58.3	Public Bureaucratic
		C	55.8	Public Democratic
		C	55.5	Public Laissez
		C	54.7	Private Bureaucratic
		C	54.4	Public Autocratic

Impact of leadership style, along with combination of 'Orientation Factors' on motivation score of employees

Leadership style combined with self orientation

We examined the hypothesis (H0) that the combination of leadership style with self orientation does not have impact on employees' motivation score and further that the combination of leadership style, sector and self orientation does not have impact on employees' motivation score. The results of ANOVA indicated that, self orientation factor alone (at P= 0.0012 level) and its combinations with sectors (at P <.0001) and leadership style (at P= 0.0353 level) are significant and have impact on employee's score, but the three-way interactions between sector, leadership styles and self orientation is not significant and doesn't have any effect on score. As such first part of hypothesis is rejected but the second part of hypothesis will be accepted.

The average of employee's score who worked for Low-self oriented leaders was 62.8 which were significantly higher than that of highly self-oriented (58.2). This would mean that whether in Public Sector or in Private Sector High Level of Self Orientation would result in low level of Motivation of Employees.

Table 3 Impact of leadership style together with combination of self-orientation factor on employees' motivation

Leadership Style	Level of Self Oriented	Total Score (Mean)	Std Dev
Autocratic	highly self-oriented	54.8	5.6
Autocratic	Low-self oriented	63.4	10.2
Bureaucratic	highly self-oriented	56.5	5.5
Bureaucratic	Low-self oriented	59.0	6.2
Democratic	highly self-oriented	58.2	8.0
Laissez	highly self-oriented	60.3	8.4
Paternalistic	highly self-oriented	60.6	4.9
Paternalistic	Low-self oriented	64.3	4.0

Leadership style combined with people/task orientation and sector

In this relationship ANOVA results revealed that task/people orientation combination with leadership style and sector three-way interaction is significant and has effect on score at 0.0023 probability. Thus, the hypothesis that Leadership style combined with people/task orientation and sector does not have any impact on Employee Motivation is rejected. From the results it is concluded that Leadership style with its combination of people/task orientation with leadership style has a significant impact on employees' motivation.

Table 4 Impact of leadership style and People Orientation factor on employees' motivation

Level of Sector	Level of Leadership Style	Level of Orientation	Total Score (Mean)	Std Dev
PRIVATE	Autocratic	Task-Oriented	67.5	5.4
PRIVATE	Bureaucratic	Task-Oriented	54.7	4.9
PRIVATE	Democratic	Task-Oriented	59.3	7.0
PRIVATE	Laissez	Task-Oriented	61.3	8.8
PRIVATE	Paternalistic	People-Oriented	66.0	-
PRIVATE	Paternalistic	Task-Oriented	63.7	7.8
PUBLIC	Autocratic	Task-Oriented	54.4	7.1
PUBLIC	Bureaucratic	Task-Oriented	58.3	5.8
PUBLIC	Democratic	Task-Oriented	55.8	10.5
PUBLIC	Laissez	People-Oriented	55.5	3.4
PUBLIC	Paternalistic	People-Oriented	63.7	4.7
PUBLIC	Paternalistic	Task-Oriented	60.1	4.4

According to Table 4, Task-Oriented leaders with Autocratic Style in private sectors (67.5) and People-Oriented leaders with Paternalistic Style in Public sectors generate the highest (63.7) motivation score, respectively.

Leadership style combined with situational perspective

The Analysis of variance revealed that both situational perspective and combinations with leadership styles are not significant, therefore the concerned hypothesis was accepted. Hence, Situational perspective of a Leader along with Leadership style does not have any impact upon the motivation of the employee. However, it should not be construed the same for overall effectiveness of the Leader in the organization.

Leadership style combined with visioning ability

The hypothesis that the combination of visioning ability with leadership styles does not have impact on employees' motivation score was tested against which ANOVA showed that effect is not significant and hence, the hypothesis was accepted. This

means that the Leadership style combined with visioning ability does not have any impact on the motivation of the employee. This result should be treated with caution as this does not mean that the visioning ability of a leader does not have any impact on overall effectiveness in the organization

Leadership Style Combinations for highest and lowest Motivation Scores

Upon analysis through established statistical tools, the best and the worst Style-Orientation combination has been found which are described as below. The Orientation Factors in respect of which the results have not been significant, i.e. Visioning Ability and Situational Perspective have been ignored.

In terms of Self Orientation:

- ***Private Sector***

  Employees having Leaders with Autocratic Leadership Style combined with Low self-oriented orientation have the highest Motivation Score (70.0) while the Employees having Leaders with Bureaucratic Style combined with Highly self-oriented orientation (54.7) have the lowest Score

- ***Public Sector***

  The Employees having Leaders with Paternalistic Leadership Style combined with Low self-orientation have the highest Motivation Score (63.7) while those employees reporting to Leaders with Autocratic Style combined with Low self-oriented orientation have the lowest Score (53.8).

Table 5 The effect of leadership style combined with sector and self orientation on employee motivation

Duncan Grouping			Mean	Sector Leadership Orientation factor
	A		70.0	Private Autocratic Low self-oriented
B	A		66.0	Private Paternalistic Low self-oriented
B	A	C	63.7	Public Paternalistic Low self-oriented
B	A	C	63.7	Private Paternalistic Highly self-oriented
B	A	C	61.3	Private Laissez Highly self-oriented
B	A	C	60.1	Public Paternalistic Highly self-oriented
B		C	59.3	Private Democratic Highly self-oriented
B		C	59.0	Public Bureaucratic Low self-oriented
B		C	57.6	Public Bureaucratic Highly self-oriented
B		C	56.7	Private Autocratic Highly self-oriented
B		C	55.8	Public Democratic Highly self-oriented
B		C	55.5	Public Laissez Highly self-oriented
		C	54.7	Private Bureaucratic Highly self-oriented
		C	54.6	Public Autocratic Highly self-oriented
		C	53.8	Public Autocratic Low self-oriented

Means with the same letter are not significantly different at $p<0.05$.

In terms of People/Task Orientation

- ***Private Sector:***

  Leaders with autocratic leadership styleand are task oriented have employees with the highest motivation (67.5). Further, the Employees having Leaders with Bureaucratic Leadership Style combined with task oriented orientation have the lowest Motivation Score (54.7)

- ***Public Sector:***

  The Employees having Leaders with Paternalistic Leadership Style combined with People Oriented orientation (63.5) have the highest Motivation Score while those with Autocratic Style combined with task oriented orientation have the lowest Motivation Score (54.4).

Table 6 Effect of leadership style combined with sector and People/Task orientation factor on employee's motivation

Duncan Grouping			Mean	Sector Leadership Orientation factor
	A		67.5	Private Autocratic Task-oriented
B	A		66.0	Private Paternalistic People-oriented
B	A	C	63.7	Private Paternalistic Task-oriented
B	A	C	63.7	Public Paternalistic People-oriented
B	A	C	61.3	Private Laissez Task-oriented
B	A	C	60.1	Public Paternalistic Task-oriented
B	A	C	59.3	Private Democratic Task-oriented
B	A	C	58.3	Public Bureaucratic Task-oriented
B		C	55.8	Public Democratic Task-oriented
B		C	55.5	Public Laissez People-oriented
		C	54.7	Private Bureaucratic Task-oriented
		C	54.4	Public Autocratic Task-oriented

Means with the same letter are not significantly different at $p<0.05$.

V. Conclusion and Recommendation

It has been established from the empirical data that the Impact of the Leadership Styles on employee motivation have to been seen in conjunction with the presence or absence of the 'Critical Success Factors' or the 'Orientation Factors'. These factors have been derived from the existing Leadership Theories and literature. Two of these factors 'Self-Orientation' and 'People/Task Orientation' had a significant correlation with the employee motivation along with the Leadership Style of the Leader. Apart from finding out the best combination in terms of employee motivation, a Model for predicting the Motivation Level of the Employees has also been suggested through this research paper. A summarized table, displaying desirable style-orientation combination in terms of employee motivation is presented below:-

Table 7 Desirable Style-Orientation Combination in Public and Private Sector Enterprises

Sl No	Orientation	Private Sector		Public Sector	
		Favourable combination	Un-favourable combination	Favourable combination	Un-favourable combination
1	SELF- ORIENTATION	Autocratic Style and Low self-orientation	Bureaucratic Style and High self-orientation	Paternalistic Style and Low self-orientation	Autocratic Style and Low self-orientation
2		Paternalistic style and Low self- orientation	Autocratic style and High self-orientation	Paternalistic Style and Highly self-orientation	Autocratic Style and High self-orientation
3	PEOPLE/TASK ORIENTATION	Autocratic style and task orientation	Bureaucratic Style and task orientation	Paternalistic Style and People orientation	Autocratic Style and Task-orientation
4		Paternalistic style and People oriented	Democratic style and task oriented orientation	Paternalistic Style and task orientation	Laissez-faire Style and People Oriented

These research findings can very well be utilized by Industries for training need identification for Group Leaders and Managers where they can be trained to adopt appropriate style-orientation combination. These findings can also be utilized, partially, for recruitments and postings at managerial level for finding out the preferred leadership style and orientation factor combination of the manager.

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"Any genuine philosophy leads to action and from action back again to wonder, to the enduring fact of mystery."

Henry Miller

A study on investors behaviour towards mutual fund products

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Abstract

The Indian mutual funds industry is witnessing a rapid growth as a result of infrastructural development, increase in personal financial assets, and rise in foreign participation. With the growing risk appetite, rising income, and increasing awareness, mutual funds in India are becoming a preferred investment option compared to other investment vehicles like Fixed Deposits (FDs) and postal savings that are considered safe but give satisfactory returns in the long-term. Mutual fund industry is a service industry which plays a vital role in the growth and development of the economy. Though the industry is growing, investors are not confident to invest in mutual funds. Wide range of mutual fund products is meeting the investors expectation is in disguise. Investment is good in mutual funds but for not more than 3 years. In this connection this paper attempts to analyze the investors' preference and attitude towards investment in mutual funds. The study is with special reference to Tirupati city considers the period from 2007-2012. The result is anticipated that asset management companies have to improve in conducting awareness regarding various mutual fund products and their benefits.

Key words: Investor behaviour, Investor preference, Investment, Growth of the mutual funds.

I. Introduction

Along with many developments or changes in the economic and financial trends all over the world, the India also observed a mammoth change in the relevant fields. This in turn affected the mutual fund industry and investments in a highly considerable way, with special reference to India. Based on many research studies it has been found that, the investor behavior has been changed tremendously after the 'deep recession' scenario in some of the pockets of the world, 'mild recession' in few other countries like India.

With special reference to India it has been observed by various researchers that, there are several parameters which an investor will think before investing like return, flexibility, capital appreciation, safety, liquidity to name a few. But it has been observed that, based on the performance of the various MF companies, the markets and Mutual Fund companies are still not able to predict the pulse of an investor. The mutual fund and asset management companies must always be proactive to match up the changes that are taking place in the minds of the customer and to understand the 'investor behavior' to have a competitive advantage. From a funds manager's perspective, it is most important to understand, "why investors invest in mutual funds?", and "for a what period of time?". Hence this research paper studies the investors' attitudes, behavior and the factors which influence in selection of mutual funds.

Significance of the Study

The impressive growth of the mutual funds in India especially in the past decade has attracted the attention of Indian researchers, individuals and institutional investors. A number of research studies have been conducted to examine the growth, performance competition and regulation of mutual funds, preference of investors and attitude/behavior towards mutual funds in India. This study would help existing and prospective mutual fund companies to get an idea of the investor preferences, attitudes and psychology towards the mutual fund investment.

The various advantages of Mutual funds are

1. Professional expertise
2. Diversification
3. Low cost of Asset Management
4. Liquidity
5. Ease of process
6. Well regulated

II. Characteristics of Population:

For carrying out investors study, population considered is 'residents of Tirupati' (which is designated as and a representative of Urban area but sandwiched between metro and rural cultured population with their cultural and consumer influences).

The respondent must be with a Mutual Fund investment or Life Insurance policy.

Tool Used for data collection: The data was collected with the help of a questionnaire.

Questionnaire design

The questionnaire consists of personal details, investor opinion related to preferences, choices, attitudes and awareness of investors toward Mutual fund investment.

Pilot study

The questionnaire was administered on a sample of 10 investors to find out the kind of responses. Based on the response, wording of questionnaires are modified.

Sample

A sample of investors is obtained by contacting investors. There are about 12 investment consultancy firms which have good investor base as given in Table 2-1. The firms are contacted for getting lists of investors. However, all of them refused to provide lists for two reasons: (i) confidentiality and (ii) inconvenience.

However, three major firms permitted to contact investors who visit their offices. By contacting more than 260 investors who have invested in mutual funds, at the time of leaving the office during a 10 day period, satisfactory and complete responses are obtained from 240 investors.

Objectives of the study

1. To know the savings objectives of individual investors
2. To know the savings instrument preference among individual investors
3. To understand the attitude towards financial instruments
4. To identify mutual fund investment is best alternative to equity investing
5. To know the schemes preferred by the investors
6. To identify the sources of awareness of investment

III. Review of Literature

Madhusudhan V Jambodekar (1996) conducted a study to assess the awareness of MFs among investors, to identify the information sources influencing the buying decision and the factors influencing the choice of a particular fund. The study revealed that income Schemes and Open Ended Schemes are more preferred than Growth Schemes and Close Ended Schemes. Investors look for safety of Principal, Liquidity and Capital appreciation in the order of importance. Newspapers and Magazines are the first source of information through which investors get to know about MFs/Schemes.

Syama Sunder (1998) conducted a survey to get an insight into the mutual fund operations of private institutions with special reference to Kothari Pioneer. The survey revealed that Awareness about Mutual Fund concept was poor in small cities like Visakhapatnam. Agents play a vital role in spreading the Mutual Fund culture, Open-end schemes were much preferred. Age and income are the two important determinants in the selection of the fund/scheme. Brand image and return are the prime considerations while investing in any Mutual Fund.

Shanmugham (2000) conducted a survey of 201 individual investors to study the information sourcing by investors, their perceptions of various investment strategy dimensions and the factors motivating share investment decisions, and reports that among the various factors, psychological and sociological factors dominated the economic factors in share investment decisions.

SEBI – NCAER Survey (2000) was carried out to know the portfolio size, investment preference for equity as well as other savings instruments. Data was collected from 3,00,0000 geographically dispersed

rural and urban households. Some of the relevant findings of the study are Households preference for instruments match their risk perception; Bank Deposit has an appeal across all income class; 43% of the non-investor households equivalent to around 60 million households (estimated) apparently lack awareness about stock markets; and Compared with low income groups, the higher income groups have higher share of investments in Mutual Funds (MFs).

Rajeswari and Rama Moorthy (2000) conducted an empirical study to understand investor preferences in purchasing mutual funds based on data obtained from a judgement sample of 350 educated investors in Urban and Semi-Urban cities. The most preferred investment vehicle is Bank Deposits, with MFs ranking 4th in the order among 8 choices. Among MFs, Growth schemes are ranked first, followed by Income Schemes and Balanced Schemes. Based on the duration of operation of schemes, the 1st preference is for open-ended schemes (84.57%) and only 15.43% of the respondents favor close-ended schemes. The investors look for safety first in MF products, followed by good returns, Tax Benefits, liquidity and capital appreciation.

Research Gap

The present study is proposed to study, analyze investor attitudes and preferences in selection of Mutual fund. Studies on analysis of investors' behavior found from time to time. The studies gave a mixed outcome-sometimes it gave positive result and sometimes not. In view of this there is ample scope for a new study to analyze and study the investors' behavior.

The revelations from survey of literature make it evident that investors are improving in awareness and investment choice making and are looking for information for rational decision making. A study on this aspect is necessary to update the knowledge.

Hypothesis

H-1	Investors save for future contingencies and retirement.
H-2	Investors prefer bank deposit in risk free instruments and mutual funds next to shares in risk associated instruments.
H-3	Awareness sources are many for investors.
H-4	Open end schemes are preferred by investors.
H-5	Growth schemes are preferred to other schemes by investors.
H-6	Investors prefer MFs that provide safety, good return and liquidity.
H-7	To verify gender, age, Academic qualification, marital status , occupation, annual savings and preference of schemes has got any significant impact on savings objectives.

Testing hypothesis will be done by using Descriptive statistics - Simple percentages, mean, standard deviation, Chi-square test and rankings. The study is mainly based on the primary data and thus certain limitations are bound to arise in the study:

1. The personal bias of the respondents might have some influence on the study.
2. The sample size will not represent the whole universe.

IV. Analysis and Discussion

Profile of Respondents

Table 1 shows the demographic profile of respondents. About 66.7% of the respondent investors are males. About 70.5% of the respondents are below 40 years age group. Of them 31.7 % are below 30 years. Most of them are married. About 73.3% of the respondents are married. Only 10 % of the respondents finished school. The rest of them i.e. 90 per cent of them are college educated. Of them, 21.6% are post-graduates. Occupation –wise, it is found that 51.2% are salaried people, with regular income. Professional, business men and retired constitute the remaining 48.8% of the sample.

Table 1: Profile of Respondents

Variable	Categories	f	%
Gender	Male	160	66.7
	Female	80	33.3
Age	Below 30	76	31.7
	31-40	93	38.8
	41-50	50	20.8
	Above 50	21	8.7
Marital status	Married	176	73.3
	Unmarried	64	26.7
Education	School	24	10.0
	Graduate	78	32.6
	Post Graduate	86	35.8
	Professional degree	52	21.6
Occupation	Professional	50	20.8
	Businessman	54	22.6
	Salaried	123	51.2
	Retired	13	5.4

Income and savings of investors

The income and savings details of investors as well as preference to savings instruments are analyzed here.

The income levels of the respondents are shown in Table 2. About 18.3% of the respondents have annual income above Rs.5lakh. About 30.8 percent belong to less than Rs.1lakh income level. The remaining are in the middle band- Rs 1lakh to Rs. 5lakh.

Table 2: Income levels of respondents (N=240)

Annual income Level	f	Percentage
Less than Rs.1,00,000	74	30.8
Rs.1,00,001 – Rs. 3,00,000	90	37.5
Rs.3,00,001 – Rs. 5,00,000	32	13.3
Above Rs 5,00,000	44	18.3

Table 3 shows the annual savings of the investor. About 56.7% of the investors are saving less than Rs 50,000 and the remaining 43.3% are savings above Rs 50,000.

Table 3: Annual savings of investors (N=240)

Annual Savings	Number	Percentage
Less than Rs 50,000	136	56.7
Rs 50,000 to 1,00,000	38	15.8
Above Rs 1,00,000	66	27.5

What is the saving objective of investors? The investors are asked to identify the purposes of savings to test the validity of the hypothesis.

Findings of the Study

H-1 Investors save for future contingencies and retirement.

1. Savings objectives of Individual Investors

Table 4 shows the savings objective of the investors. For about 38.8% of the investors, objective is to meet contingencies, for 30% to provide for retirement and for 21.6% purchase of assets. The proposed hypothesis is validated by the finding of the study.

Table 4: Saving objectives of Investors (N=240)

S.No	Savings objectives	F	%
1	To provide for Retirement	72	30
2	To meet contingencies	93	38.8
3	For purchase of assets	52	21.7
4	For tax reduction	7	2.9
5	For children's education	16	6.6

H-2 Investors prefer bank deposit in risk free instruments and mutual funds relative to shares in risk associated instruments.

2. Savings Instrument Preferences among Individual Investors

Table 5 shows Risk free tools are preferred most: the order of preference among the risk free instruments is: Life Insurance, Bank deposit, gold, postal saving , chits , real estate, currency and pension and provident fund.

Risk associated tools: units of UTI & Mutual Funds and shares are the preferred ones. From this it is obvious that investors prefer risk free instruments. But mutual funds are ranked fourth as against shares which are ranked as the least preferred.

Table 5: Preferred Savings Avenue

S. No	Savings Methods	F	%
1	Currency	6.43	8
2	Life Insurance	4.13	1
3	Shares	6.19	10
4	Postal savings	5.33	5
5	Real estate	6.33	7
6	Bank deposit	4.31	2
7	Pension and provident fund	6.45	9
8	Units of UTI & Mutual funds	5.22	4
9	Chits	5.64	6
10	Gold	4.34	3

Rank-1 most preferred. Rank-10 least preferred

3. Shares Vs Mutual Funds:

Table 6 Shares are preferred ones compared to mutual funds, they are less favourable when it comes to investing. It shows attitudes of respondents towards various Financial Instruments. A mean value of 3 indicates somewhat favourable. It is clear from the table that debentures are less favoured instrument. Mutual funds are the most favoured one followed by Bonds (3.62) and Shares (3.32).

Table 6: Attitude towards Financial instruments

S. No	Financial Instruments	Mean	SD
1	Shares	3.32	1.2
2	Debentures	2.68	1.0
3	Mutual funds	3.77	0.9
4	Bonds	3.62	1.0

Scale: 5 Highly favorable and 1- Not at all favorable

4. Mutual Fund is best alternative to equity investing.

The study reveals that, there is a fair opportunity for MF investments in future as 63.8% of the respondents have voted towards 'Yes'. However, 20% have voted 'No' and 16.2% as 'Don't Know' as their preference

in future MF investment. However, the 'No' and 'Don't Know' category should be matter of concern to the AMCs. The investors have posed a negative approach towards MFs.

Table 7: Preference to Mutual Funds

S. No	Response	F	%
1	Yes	153	63.8
2	No	48	20
3	I don't know	39	16.2

5. Mutual Fund preference in Future:

The respondent has corroborated the above view. 60% of them said positively that they will invest in mutual funds in future and 40% said 'No'. AMC's can tap these investors.

Table 8: Preferences to Mutual Funds

Response	F	%
Yes	144	60
No	96	40
Not sure	0	0

H-3: Awareness sources are many for investors

6. Awareness sources are many for investors

It shows responses which are in lines with the hypothesis stated. The investors attach high priority to published information. Business news papers (49.2%) followed by reference groups (45%) and stores display (45%) are the sources of awareness of mutual funds to the respondent investors. Though brokers are expected to be a major source of influence, the survey reveals that they are the less dependent source.

Table 9: Sources of awareness of Mutual fund investment schemes (N=240)

S. No	Source	F	%
1	Reference groups	108	45.0
2	Business news papers	118	49.2
3	Financial magazines	63	26.2
4	Television	73	30.4
5	Brokers/agents	43	17.9
6	Mail	34	14.2
7	Stores display	108	45.0

H-4 Open end schemes are preferred by investors

7. Mutual Fund Scheme Preference among Individual Investor

A question with reference to schemes is whether they prefer open end or closed end schemes.It shows that 77.9 % of the respondent investors prefer 'Open –Ended' scheme. In India majority of the schemes are Open-Ended as investors can buy and sell units at NAV related prices. The finding is validates the proposed hypothesis. During 2010 -11 many open-ended schemes were launched, the evidence.

Table 10: Preferences to open and closed end schemes (N=240)

S. No	Source	F	%
1	Open ended	187	77.9
2	Close ended	37	15.4
3	Interval	16	6.70

Another question is which kind of scheme is preferred most?

H-5 Growth schemes are preferred to other schemes by investors

8. Growth schemes are preferred to other schemes by investors

The prevailing market conditions have prompted investors to look for growth schemes and income schemes have become unattractive due to dropping interest rates. This further indicates the growing alertness of investors. Growth schemes are ranked first followed by Income, Balanced funds, Tax savings funds, money market and Index funds. As such, H-5 is accepted.

Table 11: Preferred schemes (N=240)

S. No	Scheme	Mean Rank value	Rank
1	Growth	2.26	1
2	Balanced	3.61	3
3	Tax savings	3.66	4
4	Income	2.65	2
5	Money market	4.04	5
6	Index	4.80	6

Rank-1 most preferred. Rank-6 least preferred

H-6 Investors prefer MFs that provide safety, liquidity and returns.

Which factors influence their choice of mutual fund schemes? The hypotheses developed based on the earlier studies are tested here.

9. Factors Influencing Fund/Scheme Selection by Individual Investors

Table 12 shows the investors' need for 'Safety' is the highest among other features. The other influencing factors are: Good Return, Capital Appreciation, Flexibility, Liquidity, Tax benefit, professional Management and Diversification benefit. The rank ordering is somewhat different, but laid importance on safety and Good return .Hence the hypothesis is accepted.

Table 12: Factors influencing choice of MF schemes (N= 240)

S. No	Factors	Rank value	Rank
1	Safety	2.56	1
2	Flexibility	4.19	4
3	Capital Appreciation	4.12	3
4	Tax benefit	5.13	6
5	Liquidity	5.01	5
6	Good Return	2.86	2
7	Professional management	5.6	7
8	Diversification benefit	6.83	8

H-7: Impact of gender, age, academic qualification, marital status, occupation, annual savings and preference of schemes on savings objectives.

10. Impact of Gender:

Table 13 shows that the chi square value is not significant at 0.05 levels. It means there is no significant difference between gender and their savings objective and also the maximum percentage of male and female savings objective is to meet the contingencies.

Table 13-Impact of Gender on Savings objective

Savings Objective	Male	Male %	Female	Female %	Total
To provide for Retirement	46	19.16	26	10.83	72(30%)
To meet contingencies	59	24.58	34	14.16	93(38.75%)
For purchase of assets	37	15.41	15	6.25	52(21.66%)
For tax reduction	5	2.08	29	0.83	7(2.91%)

For children' s education	13	5.41	3	1.25	16(6.66%)
Total	160	66.66	80	33.33	240
Chi Square value 2.75 ns					

*ns:Not significant at 0.05 levels.

11. Impact of Age:

Table 14 shows that the chi- square value is significant at 0.05 levels .It means there is a significant difference between the ages and their savings objective. The age of below 30 years has the maximum percentage to meet contingencies.

Table 14-Impactof Age on Savings objective

Savings Objective	Below 30	Below 30%	31-40	31-40%	41-50	41-50%	Above 50	Above 50%	Total
To provide for Retirement	16	6.66	37	15.41%	14	5.83	5	2.08	72
To meet contingencies	37	15.41	32	13.33%	14	5.83	10	4.16	93
For purchase of assets	18	7.5	11	4.58%	17	7.08	6	2.5	52
For tax reduction	1	0.41	5	2.08%	1	0.41	0	0	7
For children's education	4	1.66	8	3.33%	4	1.66	0	0	16
Total	76	31.66	93	38.75%	50	20.83	21	8.75	240
Chi Square value is 23.54*									

*Represents significance at 0.05 level

12. Impact of Qualification:

Table 15 shows that chi-Square value is significant at 0.01 levels. It means that there is a significant difference between academic qualification and their savings objective. Post-Graduates have the highest maximum percentage to meet the contingencies.

Table 15-Impact of Qualification on Savings Objective

Savings Objective	School Final	School Final%	Graduate	Post-Graduate	Professional Degree	Total
To provide for Retirement	5	2.08%	22(9.16%)	18(7.5%)	27(11.25%)	72
To meet contingencies	10	4.16%	28(11.66%)	41(17.08%)	14(5.83%)	93
For purchase of assets	9	3.75%	15(6.25%)	19(7.91%)	9(3.75%)	52
For tax reduction	0	0	7(2.91%)	0	0	7
For children' s education	0	0	6(2.5%)	8(3.33%)	2(0.83%)	16
Total	24	10	78(32.5%)	86(35.83%)	52921.66%)	240
Chi-square value is 36.53**						

** Represents significance at 0.01 levels.

13. Impact of Marital Status:

Table 16 shows that chi-square value is 25.64 which is significant at 0.05 level. It shows there is a significant difference between marital status and the investment objective. The highest maximum percentage is by married people to provide for retirement.

Table 16-Impact of Marital Status on Savings Objective

Savings Objective	Married	Un-married	Divorced	Total	Married in %`	Unmarried in %	Divorced in %
To provide for Retirement	57	15	0	72	23.75	6.25	0
To meet contingencies	54	39	0	93	22.5	16.25	0
For purchase of assets	41	10	1	52	17.08	4.16	0.41
For tax reduction	7	0	0	7	2.91	0	0
For children' s education	16	0	0	16	6.666667	0	0
Total	175	64	1	240	72.91	26.66	0.41
Chi square value is 25.64*							

14. Impact of Occupation:

Table 17 shows that the Chi-square value is 52.79 and is significant at 0.05 levels .It shows that there is a significant difference between occupation and investment objective. The highest maximum objective is by salaried people to meet the contingencies.

Table-17 Impact of Occupation on Savings Objective

Savings Objective	Professional (P)	Business (B)	Salaried (S)	Retired-R	Total	P in %	B in %	S in %	R in %
To provide for Retirement	15	27	30	0	72	6.25	11.25	12.5	0
To meet contingencies	15	10	58	10	93	6.25	4.16	24.16	4.16
For purchase of assets	19	16	16	1	52	7.91	6.66	6.66	0.41
For tax reduction	0	0	7	0	7	0	0	2.91	0
For children' s education	1	1	12	2	16	0.41	0.41	5	0.83
Total	50	54	123	13	240	20.83	22.5	51.25	5.41
Chi square value is 25.64*									

15. Impact of Annual Savings:

Table 18 shows that there is significant difference among the annual savings of investors and savings objective. The chi-square value is given by 24.703, which is significant at 0.01 levels. The highest maximum percentage of investors whose savings annually is less than Rs 50,000 is to meet the contingencies.

Table -18 Impact of Annual Savings on Savings Objective

Savings Objective	Less than 50,000	50,001-1,00,000	Above 1,00,000	Total
To provide for Retirement	41	10	21	72
To meet contingencies	61	13	19	93
For purchase of assets	21	14	17	52
For tax reduction	1	0	6	7
For children' s education	12	1	3	16
Total	136	38	66	240
Chi square value is 24.703**				

Suggestions

1. Efforts should be made by the AMC's to attract the investors by designing and developing the needed products.
2. The investors still prefer life insurance, bank deposits, gold as the best investments and mutual funds are preferred to be investing for short term only which will fetch small returns. Awareness should be given that mutual funds bring more returns when invested for long-term.
3. AMC's should take steps to launch schemes to tap the market of retail investors and can diversify from Bank Deposits to MFs. The main task at hand for the AMCs is to tackle investor sentiments with greater transparency and credibility in the functioning.
4. Brokers/ agents are expected to be a great source for investors; more training should be given in order to sell the products.
5. Many people have shown their interest towards mutual fund investments in future. AMC's should take steps to tap these investors.

V. Conclusion

The Indian mutual fund industry is currently going through a rough patch. Not only are the industry's assets under stress, but given the current macro-economic concerns, the survival of many of the relatively small and new fund houses is under doubt. Mutual funds are one of the several options that investors explore for investing surplus funds. In a deposit-dominated market like India it is important for mutual funds to be able to offer differentiated risk-rewards and gain shelf-space. With many apparently similar offerings from multiple mutual funds unable to clearly communicate their dominance, a less informed investor may find it difficult to make a choice. The mutual fund industry can concentrate on all the customers including the customers in the rural areas, corporate and also the retail investors. AMC's has to rely on the sponsors like banks and brokerage houses to give awareness and knowledge to sell their products. AMC's must rely on easy ways to reach the customers such as mobile phones and e-mail to send information of daily NAV's etc. AMC's have to strengthen their steps to regain and retain the relevance of Mutual fund products in the minds of the investors and the distributors.

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"Facts are stubborn, but statistics are more pliable."

-Mark Twain

Customer satisfaction of Telecom services in Tamilnadu, India.

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Abstract:

In today's competitive world communication plays a very important role. Communication has become an integral part of the growth, success and efficiency of any business. This is the technology that gives a person the power to communicate anytime, anywhere. Due to advancement in technology, now communication becomes easy and faster. In this paper, special emphasis has been laid over the comparative performance analysis of telecom companies AIRTEL and BSNL by using primary sources of data in Vellore district of Tamilnadu.

Keywords: Wireline, Wireless, Broadband, DOT, MTNL, VSNL ,QoS

I. Introduction:

The telecom sector reforms were undertaken in three phases. The first phase began in the 80's, when private manufacturing of customer promise equipment was given a go-ahead in 1984. A proliferation of individual STD/ISD/PCO network also took place throughout the country by way of private individual franchises. Maharashtra Telephone Nigam (MTNL) was created out of the department of telecommunication (DOT) to handle the sectors of Mumbai and Delhi respectively. A high powered telecom commission was set up in 1989. Later Videsh Sanchar Nigam (VSNL) became the international service provider catering to telecom services originating from India. The second phase of reforms commenced in 1991 with the announcement of new economic policy.

The government delivered the manufacturer of telecom equipment in 1991. It also ahead up radio services in 1992. In 1994, basic telephony was opened to the private sector by granting operating licenses to six companies. Also part of the second phase was the introduction of the National Telecom Policy 1994. It emphasized universal service and qualitative improvement in telecom services among other objectives. An independent statutory regulatory was established in 1997, Internet services were opened up in 1998. The third phase & reforms began with the announcement of the new telecom policy in 1999. The theme of NTP was to usher in full competition through a restricted entry of private players in all service sectors. The policy favored the migration of existing operators from the era of fixed license fee regime to that of revenue sharing. The policy further declined the strengthen of the regulator opening up of international long distance (ILD) and National Long Distance (NLD) services to the private sector and corporation of telecom services. The year 2001 witnessed the entry of private operators in offering basic telephony and NLD services.

The telecom sector began witnessing a trend of growth with these reforms basic services were opened for unlimited competition more licenses were issued to the private sector for cellular services. There has also been a considerable increase in the rate of tale density. The telecom sector has thus completely changed both in terms of coverage and efficiency of services. Provision of landlines a demand, digital telephone, exchanges and the acceptability of optic fiber and wireless technology are a few instances of the change that took instances of the change that took place in the industry.

Cellular telephone services have achieved great commercial success; because users recognize the mobile telephone access can improve productivity and enhance safety. A new subscriber is opting for cellular services for personal security, safety and convenience. Increase in demand and the poor quality of existing telecommunications landline services. Mobile service providers will be benefited from the research, the ways to improve their quality of service and to support more users in their system. The present study has been made to identity the customer's attitude towards cell phones,

telephones, broadband services of BSNL and AIRTEL in Vellore Division. Many private operators have entered in to the cellular segment to provide services. It has brought heavy competition in to the market. They have to find out the customers attitudes towards this service which could be useful to formulate new strategies policy and market their services in a better way.

II. Research Methodology:

Primary data was collected through observation, questionnaires and interviews. Along with Filling up of questionnaire interviews in local language with customer was done. The data is selected as a major primary data collection method, since the aim of the study is the customers perceived service quality and how it is related to customer satisfaction our main focus is thus the customer.

III. Definition of key terms:

Wireline Service: These are the telephone services that are provided by various service providers for home / office installations. These telephone connections are connected by a copper wire.

Wireless Service: This service encompasses the services based on both GSM and CDMA network technologies. These are typically known as mobile services.

Broadband Service: Broadband' is defined in the Broadband Policy 2004 as "An always on data connection that is able to support interactive services including Internet access and has the capability of the minimum download speed of 256 kilo bits per second (kbps) to an individual subscriber from the Point of Presence (POP) of the service provider intending to provide Broadband service where multiple such individual Broadband connections are aggregated and the subscriber is able to access these interactive services including the Internet through this POP. The 2 interactive services will exclude any services for which a separate license is specifically required, for example, real-time voice transmission, except to the extent that it is presently permitted under ISP license with Internet Telephony".

IV. Data Analysis:

The study was conducted in two modules. The first module (subjective survey) was undertaken to gauge the subscriber feedback on Network Performance by way of a large sample based field survey. The second module (objective assessment) involved auditing of the QoS monitoring records of telecom operators. To gauge the level of satisfaction of subscribers with the Network Performance provided by the service providers, interviews across a large sample of subscribers for Basic (Wireline), Cellular Mobile (Wireless) and broadband services were conducted. The sample survey was conducted to ensure spread across operators on the basis of their subscriber size and the type of circle in which we are conducting the interviews. The satisfaction level of subscribers was collected on a four-point scale of "Very satisfied", "satisfied", "dissatisfied" and "very dissatisfied".

Figure-1: Customer Satisfaction with Network Performance of BSNL and AIRTEL in wireless service.

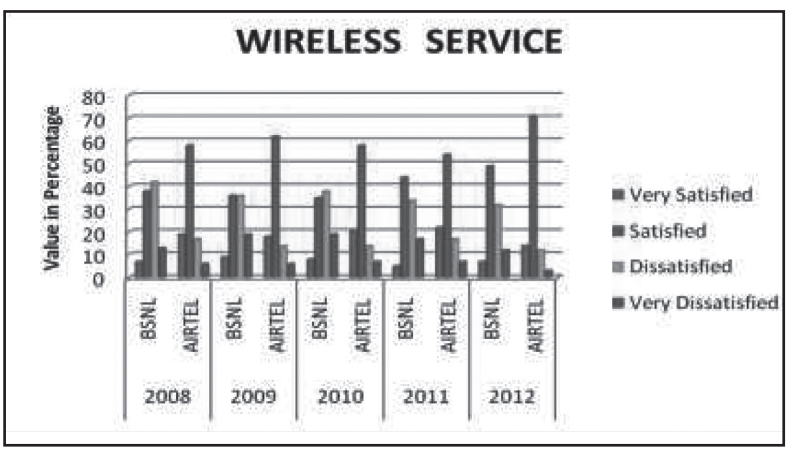


Table-1: Customer Satisfaction with Network Performance of BSNL and AIRTEL in wireless service (Last five years data arrived in table).

TABLE - 1

WIRELESS SERVICE										
	2008		2009		2010		2011		2012	
	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL
Very Satisfied	7	19	9	18	8	21	5	22	7	14
Satisfied	38	58	36	62	35	58	44	54	49	71
Dissatisfied	42	17	36	14	38	14	34	17	32	12
Very Dissatisfied	13	6	19	6	19	7	17	7	12	3

Table-2: Customer Satisfaction with Network Performance of BSNL and AIRTEL in broadband service (Last five years data arrived in table).

TABLE - 2

BROADBAND SERVICE										
	2008		2009		2010		2011		2012	
	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL
Very Satisfied	17	21	23	22	21	19	24	23	26	19
Satisfied	67	68	69	67	76	77	73	74	72	78
Dissatisfied	9	6	6	7	2	2	2	3	1	2
Very Dissatisfied	7	5	2	4	1	2	1	0	1	1

Figure-2: Customer Satisfaction with Network Performance of BSNL and AIRTEL in broadband service.

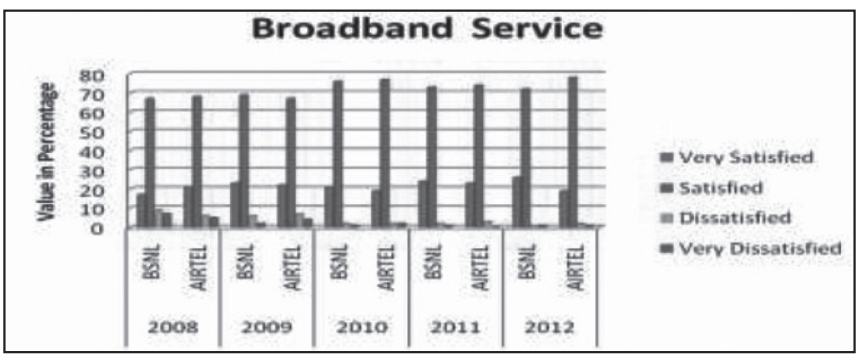
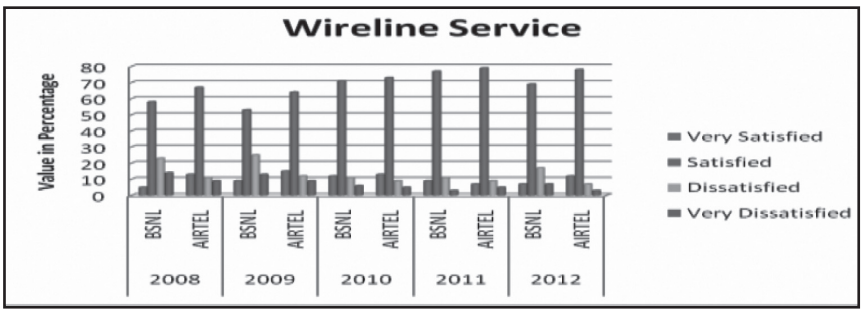


Table-3: Customer Satisfaction with Network Performance of BSNL and AIRTEL in wireline service (Last five years data arrived in table).

TABLE - 3

WIRELINE SERVICE										
	2008		2009		2010		2011		2012	
	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL	BSNL	AIRTEL
Very Satisfied	5	13	9	15	12	13	9	7	7	12
Satisfied	58	67	53	64	71	73	77	79	69	78
Dissatisfied	23	11	25	12	11	9	11	9	17	7
Very Dissatisfied	14	9	13	9	6	5	3	5	7	3

Figure-3: Customer Satisfaction with Network Performance of BSNL and AIRTEL in wireline service.



V. Conclusion:

This paper presents studies the satisfaction of customers in Vellore district with some QoS parameter. This paper is based on a survey which is done in Vellore district on BSNL and AIRTEL service providers. The purpose of questionnaire for wireline, wireless and broadband customer separately which includes questions regarding network performance, reliability and availability. BSNL must improve (Hi-tech operating system) their operating network system and network performance and also their roaming activities can come – up brightly in future.

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"Research is the process of going up alleys to see if they are blind."

Marston Bates

Impact of innovation on knowledge management -an Indian scenario

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Abstract:

Rapid obsolescence is a major challenge for Indian organizations of the 21st century and Innovation is the only way of survival. Knowledge is the key ingredient of innovation. Innovation by its definition assumes the existence of some process which needs to be innovated upon. Knowledge Management constantly helps in identifying such process and helping people to innovate upon these. Innovation may be linked to performance and growth through improvements in efficiency, productivity, quality, market share etc. Organizations that do not innovate effectively may be destroyed by those that do. Executives at most organizations across the globe have recognized that today's need for innovation is greater than ever, and tomorrow's will be still higher. Customers are better informed, more demanding, and more likely to take advantage of increased market transparency.

Key words: Knowledge management, knowledge sharing, innovation

I. Introduction:

Knowledge Management is defined as the deliberate and systematic coordination of an organization's people, technology, processes, and organizational structure in order to add value through reuse and innovation. This is achieved through the promotion of creating, sharing and applying knowledge as well as through the feeding of valuable lessons learned and best practices into corporate memory in order to foster continued organizational learning. Knowledge Management is a concept that treats intellectual capital as a managed asset. An important factor to be considered is that in a global economy information travels at lightning fast speeds. Economies across the world have changed from labor oriented production valued systems to intellectual and skill valued system. Knowledge Management is just about balancing the corporate human memory and for this, the management of the organization must identify and improve the various knowledge sources.

II. Meaning of Innovation:

This calls for the concept of innovation in the area of Knowledge transfer and Knowledge Management. What is innovation and why it has created impacts and made inroads in Knowledge Management? Innovation is creating and applying new or distinctive ways of producing, distributing, or delivering products, services or ideas from producers to users. It is also the design and implementation of new and distinctive organizational structure and processes. Innovation requires the application of both new and existing knowledge as well as explicit and implicit knowledge. Therefore organizations have learned that if they wish to innovate, they must manage knowledge as a critical resource which is the most important resource an organization can have. It is pertinent to point out here that, knowledge is stored in the minds of the people of the organization and not in computers or databases.

Present Scenario:

In Indian conditions presently, the outcomes of learning are mostly only reactive in nature. They are not proactive. A competitor's move may stimulate an organization to launch something innovative or new, but primarily learning results in a few minor and only incremental changes in the organization. Learning involves creation of knowledge, and enables organizations to innovate. The innovations achieved through learning might not be confined only to a new product, but also get extended to other corporate innovations such as creation of a different strategy, an effective accounting system or a new process. From Indian management point of view, behavioural innovation will be more important in the

long run. Behavioural innovation may mean new strategies, new ways of reacting to such environmental changes as increased diversity in the workplace and new ways of learning.

III. Review of Literature:

Information and Innovation:

Nonaka. I. & H. Takeuchi (2005) assert that when organizations innovate, they do not simply process information from the outside in, in order to solve existing problems and adapt to a changing environment. They actually create new knowledge and information from the inside out in order to redefine both problems and solutions and, in the process to re-create their environment. This means that KM is a powerful tool for promoting innovation, realizing and reengineering the various aspects of day to day activities of an organization. KM is essentially a process of managing human assets. It is the duty of an organization to guard and grow the knowledge owned by individuals and transferring the asset and sharing the same by use of suitable knowledge transfer mechanisms.

Adaptation and Innovation:

Yogesh Malhotra (2000) says Knowledge Management caters to the critical issues of organizational adaptation, survival and competence in the face of discontinuous environmental change. Eventually, it embodies organization processes that seek a synergetic combination of data and information processing capacity of information technology and the creative and innovative capacity of human beings. The changes that are taking place globally with reference to Knowledge Management is phenomenal. Knowledge Management initiatives can substantially contribute towards cost cutting, product and process innovations, competitiveness and can ensure improved operational efficiency as well.

KM and Innovation

Steve Barth (2002) defined Knowledge Management as the practice of harnessing and exploiting intellectual capital to gain competitive advantage and customer commitment through efficiency, innovation, and faster and more effective decision making. This means that the assimilation of intellectual capital can happen only after analyzing the gap between skill and knowledge factors. Some studies have envisaged this and will mitigate the gap between skill and knowledge.KM in general refers to a collection of practices and approaches related to generating and capturing organizational business.

IV. Factors for Innovation

Probst & Raisch (2005) say that for an innovation to be successful, four factors must be in place. They are growth, change, strong leadership, and a culture of success. In Indian scenario, one or more of these essential factors are often missing. Knowledge Management helps make innovation possible by ensuring that information and knowledge are available when needed. The knowledge sharing programs adopted by the company focuses on improvement both technology wise and from the human practices point of view. Knowledge sharing is providing right information to right people at the right time.

Key Success Phases to Innovation Process

Kalling,T (2003) in detail tells us that Innovation is an important feature of many successful knowledge enterprises across the globe. Three phases of innovation have been identified by him.

Knowledge Development requires the space and opportunity to explore and test new ideas. People must have sufficient capacity for experimentation, collaboration, problem solving, integration and transfer. *Knowledge utilization* is the testing of those ideas in real contexts. The organization and those involved with the innovation need to be able to review and redevelop routines and processes to encourage changed practices. Organizational climate which encourage innovative behaviours are important components of this success strategy.

Knowledge capitalization helps the firm to get competitive advantage from the innovation. It is important to ensure that there is an avenue to encourage good ideas to be further implemented. Innovative organizations encourage positive attitude to change management. During this process organizations need to recognize that the above mentioned process may not gestate in time and they need to be patient. Innovation will be

challenging if as many errors can occur during the process of idea to implementation. Like many aspects of Knowledge Management, the final innovative strategy or product may be the result of many different contributors, and many years of experimentation.

V. Conclusion:

Many organizations are now acknowledging the importance of Knowledge Management practices in their organizations and in dealing with their clients. There should be a general awareness among members of the organization that sharing small information is important to build improvements/innovations bit by bit. It is for the management to find out the gaps in knowledge management flows and then find solutions to these gaps. Effective use of an organization's knowledge resources creates a more competitive edge and promotes innovation acquired through the free flowing of ideas. The new focus of KM is on innovation. It is on how to manage it, and to accelerate it, in creating new business innovations. Innovation in Indian scenario is not only about what is being offered but also about how and by whom it is being offered. KM is not just a matter of managing information. It should also take social factors into account. The return on KM investments should not be considered as a short term goal but a long term process for an organization. An innovation process might have the added advantage of creating proprietary knowledge. A key challenge in innovation is maintaining a balance between process and product innovations. The organization should hire people in such a way that they encourage knowledge sharing and innovation. Increase in knowledge sharing, both horizontally and vertically, has resulted in increase in employee efficiency and customer service. Also KM deals with cultural issues to a larger extent and hence it is important that employees are provided with proper incentives and tools to share knowledge. Good KM practices will result only in achievement of organizational goals good performance, shareholder satisfaction and innovativeness. Current KM systems have many weaknesses. Current KM systems provide insufficient searching and extracting information. Perhaps, moving one step towards innovation, Indian organizations can think of implementing the following mechanisms for bridging knowledge gaps and the factors that are affecting the innovation process.

- Organizations should develop leadership skills in managers and workers.
- Recommending suitable rewards/ incentives for knowledge sharing innovations and learning within the organization.
- Improving access to information and knowledge
- Facilitating rich and open communication
- Knowledge Management in Indian organizations should be more accountable (i.e.) people are neither rewarded nor punished for sharing or withholding knowledge.
- Measures will have to be taken to demonstrate a return on investment from Knowledge Management.
- Trying to create more flat organizational structures with parallel structures instead of sequential structures.
- Making teams and not individuals accountable for the total task.
- Organizing work as an integrated process instead of segmented tasks.

Implicitly the challenge for an organization is to derive a Knowledge culture, which rewards knowledge and stimulates innovation. This requires an understanding of the organization internally and periodically improving its systems in order to remain a Knowledge Management driven company.

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"Every path to a new understanding begins in confusion."

Mason Cooley

Employee Engagement and HR Initiatives: -- A Conceptual Study

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Abstract:

Employee engagement is the level of commitment and involvement an employee has towards his organization and its values. It is a measureable degree of an employee's positive or negative emotional attachment to their job, colleagues and organization which profoundly influences their willingness to learn & perform at work. Employee engagement has a direct impact on the employee's productivity. The most productive employees are those that are not only committed and loyal; but also those whose outputs are healthy and gratifying both for themselves as well as for the organization they work for. Over the past decade, and particularly in the past three years, employers and employees have faced human capital challenges and an uncertain economy. The economic downturn that started in 2008 has had a significant impact on companies and the resulting decisions made by management. These decisions have impacted employee engagement levels and perceptions globally, leading to changes in leading drivers of employee engagement. In uncertain times, organizations need to focus on harnessing the discretionary effort that engaged employees deliver. This makes the difference in how companies are affected during the economic downturn, how quickly they emerge from it, and how strong they are in the future after the downturn passes. The study has done in order to ascertain the level of employee engagement and the determinants thereof among the executives of organization.

Keywords : Employee Engagement, economic downturn, human capital challenges, emotional attachment.

I. Introduction:

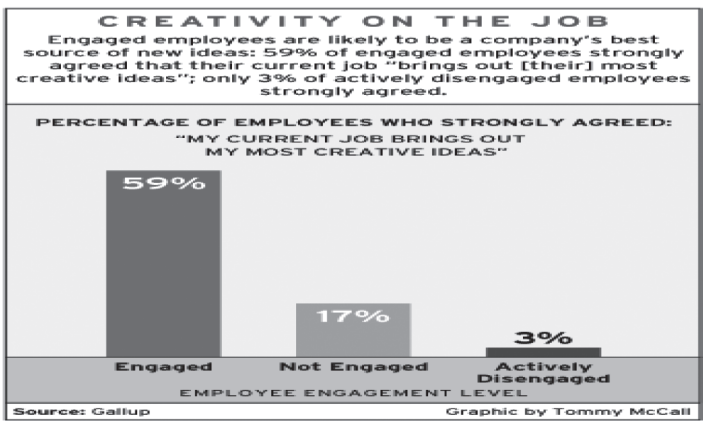
When it comes to innovation, business leaders are necessarily looking to counting on ideas from their employees, customers, and partners to help drive the organization forward. An engaged employees are most likely to contribute those innovations, according to a recent ***Gallup Management Journal (GMJ) survey of U.S. workers.*** Human resources are the backbone of organizations who run, who contribute and who create and innovate in their own way to accomplish tasks and achieve goals of the organization. Employees are the lifeline of an organization. An organization can't survive without employees. They are the blood line of an organization. Employees are the main assets of the organization and it is really important for them to prioritize their tasks at the workplace. An employee must be engaged in productive work, challenging tasks so that they do not lose their focus from their work. By doing this the organization can do avoid conflicts and unnecessary disputes. An employee must be engaged in his work for maximum output. Today's business climate needs for professionals who can lead by examples and counsel to build strong employee engagement. Due to, the challenging economy organization has led to a reduced work force, increased workload and tough responsibilities without enhancing salaries. As the economy continues to recover and companies add jobs, loyalty. Gallup research has shown that there are three types of employees in the Table 1 those are always been exist in the organization i.e. **Engaged, Not Engaged, Actively Disengaged.**

Table 1

Types of Employees	Their Nature
Engaged	1. Employee work with passion 2. Feel a profound connection to their company 3. They drive innovation and move the organization forward.

Not Engaged	1. Employees are essentially checked out. 2. They are sleepwalking through their workday, putting time, but not energy or passion into their work.
Actively Disengaged	1. Employees are not just unhappy at work. 2. They are busy acting out their unhappiness. 3. Every day, these workers undermine what their engaged coworkers accomplish.

Fig 1 depicts the percentage of above three categories of employee on employee engagement level.



Importance of employee engagement & HR initiatives:

Employee engagement is an umbrella term that captures any number of factors including job satisfaction. It is an idea that helps to develop strong positive attitudes among people towards their works. It also plays a major role in ensuring that, people always give their best even when times are tough for an organization. Employee engagement is of mix of factors like organizational commitment, belongingness, job satisfaction, employee involvement & organizational citizenship. Success of employee engagement---- link to higher level of productivity, more customer satisfaction & low rates of absence. The importance of HR initiatives is lying within the employee engagement concept, because both are related to human resource. HR initiative programs involve training, building awareness, employee branding, recruiting programs, workforce health and well-being, work/ life balance and leadership development programs, which leads an employee to be a fully engaged and productive human resource.

II. Objective of the Study:

1. To study the percentage of an increase and decrease in employee engagement in an organizations.
2. To study the contributory factors of Employee Engagement.
3. A theoretical study on various HR initiatives taken by various organization on employee engagement.

Methodology: The main objective of the study was to investigate the relationship between employee engagement and productivity and organizational commitment. The above study is based on secondary data.

III. Literature review:

Kahn (1990) defines employee engagement as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances". Thus, according to Kahn (1990) engagement means to be psychologically as well as physically

present when occupying and performing an organizational role. **Locke and Taylor (1990)** recognized the relatedness needs individuals possess, arguing individuals who have rewarding interpersonal interactions with their co-workers also should experience greater meaning in their work. **Cooper (1997)** argues that research shows that if emotions are properly managed rather than shut out at work, they can drive trust, loyalty and commitment and great productivity gains by individuals, teams and organizations. **Bowditch and Buono (2001)** suggest that, "our personality acts as a kind of perceptual filter or frame of reference which influences our view of the world". Therefore, he argued that it is individuals personal perception of our social and physical environment that shapes and directs how engaged an employee is, rather than some objective understanding of an external reality. According to **Holbeche and Springett (2003),** people's perceptions of 'meaning' with regard to the workplace are clearly linked to their levels of engagement and, ultimately, their performance. They argue that employees actively seek meaning through their work and, unless organizations try to provide a sense of meaning, employees are likely to quit. **Lawler and Worley (2006)** contend that power can mean a relatively low level of influence, as in providing input into decisions made by others or it can mean having final authority and accountability for decisions and their outcomes. Involvement is maximized when the highest possible level of power is pushed down to the employees that have to carry out the decision, resulting in gaining the maximum level of engagement possible from employees. **Wilson (2004)** argues that "feelings connect us with our realities and provide internal feedback on how we are doing, what we want and what we might do next. Being in organizations involves us in worry, envy, hurt, sadness, boredom, excitement and other emotions." **Saks (2006)** argues that one way for individuals to repay their organization is through their level of engagement. In other words, employees will choose to engage themselves to varying degrees and in response to the resources they receive from their organization. **According to Robinson (2006)** individuals categories and make sense of events and situations according to their own unique and personal frame of reference, which reflects their personality, past experiences, knowledge, expectations and current needs, priorities and interests. Cufaude (2004) argues that when managers employ a philosophy of 'servant-leadership', whereby a manager's primary role is in supporting and serving those around them, the environment becomes 'highly engaged'.

Discussion on Employee engagement

Factors involved in an organization for Employee Engagement:

Employers want those employees who will do their best work throughout they are in the company. Employees want jobs that are worthwhile and career growth is the ultimate. Organization want that its leaders meet the corporate goals and needs of their employees. They require committed employees to enable their success. This article outlines, from an employee perspective, some of organization-based factors contribute to employee engagement. The benefits of an engaged workforce are reflected in performance and productivity, improved quality and customer care, enhanced cooperation amongst the workforce, reduced staff turnover, reduced absenteeism and disputes and added value by drawing on the skills and knowledge of all employees. The following are the factors in the Table 2 which contribute to the employee engagement in the organization.

Table 2

Contributing Factor I: Corporate Values
Contributing factor II: Ethical Leadership and the Psychological Contract
Contributing factor III: Organizational Citizenship
Contributing factor V: communication

Source: www.hrreview.co.uk/analysis/analysis-health-safety/employee-engagement

Contributing Factor I: Corporate Values

Corporate values have an enormous influence on the choices, beliefs and behaviors of employees (Schroeder, 2002; Velasquez, 2002). The values statement defines how an organization behaves, what is important to it, what it stands for and how its employees behave. 'Values' give an organization 'purpose beyond profit'. Every one aspires to hold value in their respective field. Employees hold values that match the values of their employer; they have higher job satisfaction, identify more closely with the organization and Employer hold values in maintaining employment relationships. (Kristof, 1996, Kristof-Brown; Meglino & Ravlin, 1998, as cited in Edwards & Cable 2009). All Leaders need to establish corporate values and consistently demonstrate these through their behaviors. The corporate values should be link to appreciation and reward schemes, to reinforce the values and their significance.

Contributing factor II: Ethical Leadership and the Psychological Contract

Every organization has its own value. That needs to transmit through its potential leaders to the potential employees. Leaders need to actively demonstrate the organization's values from a place of integrity. If the value transmitted properly then it is to be meaningful engagement with employees. When employers deliver on their commitments this reinforces employees' sense of fair play and trust in the organization and generates a positive 'psychological contract' which will create an unwritten mutual obligation- between employer and employee. Leaders need to ensure to being ethical with being effective, authentically valuing staff and meeting targets. Leaders need to have a true appreciation of the impact their decisions and behaviors have on the workforce.

Contributing factor III: Organizational Citizenship

Organizational citizenship is the tendency for people at work to help each other and put extra effort in beyond what is required. These behaviors mark the difference between the most profitable organizations and the rest .When there is a sense of citizenship amongst employees it can be often correlate to a strong psychological attachment to the organization, resulting in employees that are more likely to be motivated towards making a meaningful contribution to the organization, thus embodying what engagement is. All the Leaders should recognize that people who have a 'friend at work' are more likely to be engaged in their jobs. If employers can make the workplace conducive to friendships, employees will be happier more engaged and productive.

Contributing factor IV: communication

Communication covers a range of both tangible and intangible ways to share information. It is the most vital medium on which the satisfaction level of employee engagement is lies on. A communication matrix can help define how the organization communicates well to its stakeholders. Corporate inductions for new employees should include a section on 'how the organization communicates', and leaders needs to highlight that employees need to take personal responsibility.

Elements that exist in an organization for Employee Engagement:

Engagement is an individual psychological and behavioral state. Engagement is most often demonstrated when people exhibit behaviors associated with speaking positively about the organization (Say), having a desire to be a part of the organization (Stay), and willingness to make extra effort that contributes to organizational success (Strive). In general, global scores across two of these three areas (Stay and Strive) have slightly improved from 2010 to 2011, but have not been restored to 2009 levels.

Fig 2

Source: Aon Hewitt Engagement 2.0 Report, 2010

Employee engagement & Organizational Determinants:

Motivation and employee engagement are two side of a coin. Here organizations are considered as a coin. Employees are always in search of satisfaction in their job as well as determinants of job. There are certain aspects like goodwill, market value, customer satisfaction which matter a lot to the organizations for which they always try to motivate their potential employees to put extra effort. By doing this they always put the employee engagement aspect in the front door. To support this concept organizations are taking the help of some HR initiatives.

HR Initiative

Employee Feedback

Now a day's organizations are collecting employee opinions, suggestions and ideas to improve workplace and work culture. Feedback gathered through focus groups, surveys and meetings which will provide variety of improvements and will continue to be a catalyst for change.

Training and Development

As we know that training is most vital component of an organization. It always initiative provides a forum where training methods across the organization are benchmarked, formatted into structured programs, then disseminated throughout the organization. These initiatives focus on constant development of our employees at each and every stage of their tenure with the organization.

Employee Welfare Schemes

Medi-claim Insurance Scheme: This insurance scheme provides insurance coverage to employees for expenses related to hospitalization due to illness, disease or injury or pregnancy.

Bloc Holidays: Organizations have also provisioned for bloc holidays on certain occasions and dates which allows their employees to relax and wind up from their regular schedule.

Free Lunch: Organizations are also providing free lunch service to all their employees.

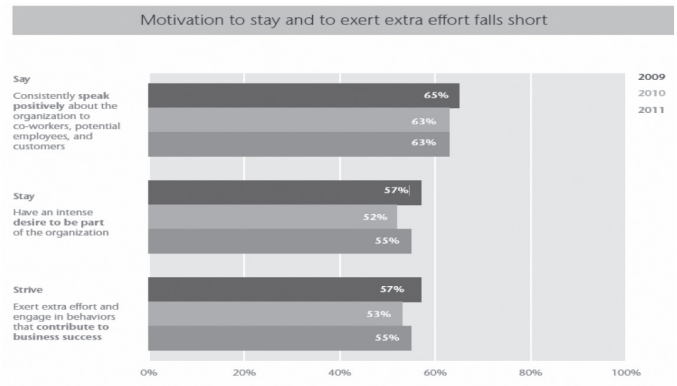
Tenure Recognition Program

Since employees are the organization's greatest assets, the organizations have developed specialized programs to fully recognize individuals for their years of loyalty and service. Administered by the HR department, this program recognizes all full-time employees, presenting them with gifts to mark each major anniversary during their tenure with the employer.

Rewards and Recognition

Rewards and Recognition programs honor both individuals and teams who go the extra mile to contribute to organizational growth. It is to create a culture of recognition to constantly engage the employees which in turn keeps them happy, loyal and productive.

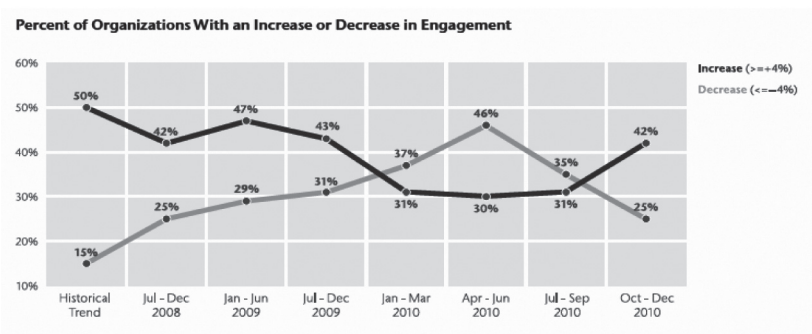
Fig 3



Source: Trends in Global Employee Engagement

In general, employees have not changed in their view of the company, but are a bit more likely to work harder and stay with the organization. This could be due to fewer employment opportunities in general, causing them to be more likely to stay with and stay focused on their current job and employer. In the above fig-3, the study derived that, from 2009-2011,the percentage of effort and engagement in employee behavior in 2010 in terms of contribution to the business success is led as compared to the year 2009 & 2011. In case of Stay component, in the year 2009 the percentage of employees who have shown their intense desire to be the part of their organization is 57.In case of 2010 & 2011 there was not much distinct reduce on the same. In order to retain & motivate the talent in the organization the best way is to speak positive aspect of the company to the co-worker, potential employees & customers. To support the above line, the percentage of motivation &extra effort is more (65%) in 2009 as compared to 2010 & 2011.

Fig4



According to Aon Hewitt study, the engagement data for organizations surveyed in 2010 and compared that data to its past data i.e.(2008&2009). Employee engagement levels were improving from 2008 to 2009, but organizations struggled to maintain this trend into 2010. According to Aon Hewitt, has seen in the last 15 years in fact, 2010 engagement levels represented the largest decline in employee engagement. As the chart shows, in the last quarter of 2010 there was a positive increase in employee engagement scores from the negative trends across the first three quarters of 2010. Clearly, in the past few years, the connection between employees and organizations has been strained. Employees are showing fatigue in response to the lengthy period of stress, uncertainty, and confusion.

IV. Conclusion

Engaging employees is important whatever the potential of the employee, but it is especially crucial for truly talented people who are likely to have leadership potential either now or in the future. The importance of employee engagement in the organizational setting is undeniable. The present study reveals many factors that appear to affect the level of employee engagement of the middle

level executives in the Indian scenario. Overall, the components that were found to be important were; Training and development, organizational culture and community, all of which must be undertaken simultaneously in order to achieve the best results. Hence, the author recommend that these factors should be considered while designing organizational policies on decentralization, rewards and incentives, communication of information, employee career development, and developing organizational brand image.

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John Amatt

Basel III Accord in Indian Perspective

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Abstract

The pronounced new Basel III guidelines intend to improve the ability of banks to withstand periods of economic and financial stress by prescribing more stringent capital and liquidity requirements for them. The capital requirements as proposed by the Basel III guidelines would necessitate Indian banks to raise external capital of Rs. 600000 crore in over next 9 years, besides lowering their leveraging capacity. Specifically Public Sector Banks require most of this capital, as they dominate the Indian banking sector. However, Indian banks may still find it easier to make the transition to a stricter capital requirement regime than some of their international counterparts since the regulatory norms on Capital Adequacy in India are already more stringent, and also because most Indian banks have historically maintained their core and overall capital well in excess of the mandatory level. Initially the research paper threw light upon the basic objectives and components of the Basel III accord in the light of existing RBI norms and proposed Basel III norms. Last segment of the paper brings out a discussion on the compliance process by the Indian banks to Basel standards in recent period and finally, the issues and challenges faced by the Indian Banking sector are posed in the end.

Key Words: leveraging capacity, Capital Adequacy, capital requirement regime, Basel III Accord. Buffer

I. Introduction

The modern banking industry is rapidly developing with a clear trend towards globalization. Accordingly, international community has been working hard collectively to seek the best practice of banking regulation. Several major FIs failed, were bailed-out by governments, or merged (voluntarily or otherwise) during the crisis. While the specific circumstances varied, in general the decline in the value of mortgaged backed securities held by these companies resulted in either their insolvency; the bank runs as investors pulled funds from them, or inability to secure new funding in the credit markets. These institutions had typically borrowed and invested large sums of money relative to their cash or equity capital, meaning they were highly leveraged and vulnerable to unanticipated credit market disruptions. The five largest U.S. investment banks, with combined liabilities or debts of $4 trillion, either went bankrupt Lehman Brothers, were taken over by other companies (Bear Stearns and Merrill Lynch), or were bailed-out the U.S government (Goldman Sachs and Morgan Stanley) during 2008. Government sponsored enterprises (GSE) Fannie Mae and Freddie Mac either directly owed or guaranteed nearly $5 trillion in mortgage obligations, with a similarly weak capital base, when they were placed into Receivership in September 2008. For scale, this $9 trillion in obligations concentrated in seven highly leveraged institutions can be compared to the $14 trillion size of the U.S. economy (GDP) or to the total national debt of $10 trillion in September 2008. As a result of the financial crisis in 2008, twenty five U.S. banks became insolvent and were taken over by the Federal Deposit Insurance Corporation (FDIC). As of August 14, 2009, an additional 77 banks became insolvent. This seven month tally surpasses the 50 banks that were seized in all of 1993, but is still much smaller than the number of failed banking institutions in 1992, 1991, and 1990. The United States has lost over 6 million jobs since the recession began in December 2007. City Bank, Bank of China , Banco De Oro of Philippines, Bangkok Bank , Bank Of Nova Scotia of Singapore all these Asian banks failed during crisis. Years of unrestrained spending, cheap lending and failure to implement financial reforms left Greece badly exposed when the global economic downturn struck. National debt, put at €300 billion ($413.6 billion), is bigger than the country's economy, reached 120 percent of gross domestic product in 2010. Many countries have indeed had their shares of banking crisis, requiring major reforms to address weak banking

supervision and inadequate capital. It has therefore been established that in addition to Deposit Insurance, official capital adequacy regulations lay crucial role in stabilizing the banking system and by extension, the economy as a whole. It then becomes imperative to realize that capital adequacy regime is one of the most important sets of rules and proposals in both International and domestic banking laws. If capital adequacy regulation would constitute an effective legal regime in banking, then stakeholders believed that it needed to be really International in scope, since banking itself has become international. . In reaction to this, the Basel Committee on Banking Supervision (BCBS) promulgated the Basel Accord in 1988. Upon the promulgation of Basel Accord of 1988 (Basel I) the face and scope of international banking regulation hanged forever. Today, the accords consist of Basel I, II and III. All three of them primarily pertain to minimal capital requirements every bank needs to hold in reserves, ith Basel I starting out in 1988 with a basic focus on credit risk. Basel II first published in June 2004 (and later revised in 2006) aims at helping banks separate operational risk room credit risk, as well as quantifying both, and ensuring that capital allocation is more risk-sensitive. Basel III, published in 2010, introduces a more distinct definition of common equity, a framework for countercyclical capital buffers and different measures to limit counter party credit risks. The new norms are based on renewed focus of central bankers on macro-prudential stability. The global financial crisis following the crisis in the US sub-prime market has prompted this change in approach. The previous set of guidelines, popularly known as Basel II focused on macro-prudential regulation. In other words, global regulators are now focusing on financial stability of the system as a whole rather than micro regulation of any individual bank. Most legal scholars would classify the Basel Committee as an *"International Financial Regulatory Organization (IFRO)"*.

II. Basel III ACCORD

The Basel Committee on Banking Supervision (BCBS)-Central bank governors and heads of supervision from 27countries meet in the Swiss town of Basel on December 2010, Sunday to agree to tougher bank capital and liquidity standards. The Group of 20 leading countries (G20) called for the Basel III reform to apply lessons from the financial crisis 2007 2008, had exposed shortcomings in the Basel II framework of 2004, so that states are less likely to have to rescue banks again in the next crisis. . The Basel Committee on Banking Supervision consists of senior representatives of bank supervisory authorities and central banks from Argentina, Australia, Belgium, Brazil, Canada, China, France, Germany, Hong Kong, India, Indonesia, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. It usually meets at the Bank for International Settlements (BIS) in Basel, Switzerland, where its permanent Secretariat is located. The Basel Committee proposed the Basel III guidelines by December 2010, following which a six year phase-in period beginning 2013 is likely to be prescribed. The impact of the suggested norms relating to forward looking approach and counterparty risk weights are not captured in this note, since for that more granular data would be required and these are not available currently in the public domain. The norms on "leverage ratio" and "net stable funding ratio" are also not discussed in this note as they are likely to be implemented not before 2019.

III. Objectives Of Basel III Reforms

The document ***Basel III: International framework for liquidity, risk measurement, standards and monitoring,*** strengthen global capital and liquidity rules with the goal of developing more stable banking sector. The objectives of the reforms are:

1. To improve the banking sector's ability to absorb shocks arising from financial and economic stress.
2. To improve risk management and governance as well as strengthen banks' transparency and disclosures of systemically significant cross-border banks.
3. To maintain a strong and resilient banking system for sustainable economic growth.

4. To improve confidence in the solvency and liquidity of many banking institutions.
5. To improve global liquidity, cross-border credit availability and demand for exports.
6. To introduce a number of fundamental reforms to the international regulatory framework.
7. The reforms strengthen bank level, or micro prudential, regulation, which will help raise the strength of individual banking institutions to periods of stress.

Components Of Basel III Framework

The key components of the proposed Basel III guidelines are:

1. Constituents of capital
2. Capital Conservation Buffer
3. Counter Cyclical Buffer
4. Leverage Ratio
5. Liquidity
6. Risk Coverage

1. Constituents of Capital

The common equity component of Tier 1 will be comprised of ordinary share capital and retained profits. Non-common equity Tier 1 ("Additional Tier 1") will be principally made up of perpetual noncumulative preference shares and other qualifying instruments. Tier 2 capital will no longer be divided into lower Tier 2 (principally, dated term preference shares and subordinated debt) and upper Tier 2 (including certain perpetual preferred instruments and subordinated debt). All Tier 2 instruments will be required to be either convertible into common equity or written down in the event of the institution becoming non-viable without a bail-out. Tier 3 capital will be abolished. Generally speaking, Tier 3 capital was unsecured subordinated debt that is fully paid up, cannot be repaid before maturity without prior regulatory approval and with an original maturity of at least two years. Deductions from capital (or regulatory adjustments) will be applied to the common equity Tier 1 component and not to overall capital.

Changes in Standard Deduction

The proposed Basel III guidelines suggest changes in the deductions made for the computation of the capital adequacy percentages. The key changes for Indian banks include the following:

Table 1: Deductions from Capital—Proposed vs. Existing RBI Norm

	Proposed Basel III Guideline	Existing RBI Norm	Impact
Limit on deductions	Deductions to be made only if deductibles exceed 15% of core capital at an aggregate level, or 10% at the individual item level	All deductibles to be deducted	Positive
Deductions from Tier I or Tier II	All deductions from core capital	50% of the deductions from Tier I and 50% from Tier II (except DTA and intangible assets wherein 100% deduction is done from Tier capital)	Negative
Treatment of significant investments in common shares of unconsolidated financial institutions	Any investment exceeding 10% of issued share capital to be counted as significant and therefore deducted	For investments up to:(i)30%: 125% risk weight or risk weight as warranted by external rating (ii)30-50%: 50% deduction from Tier I and 50% from Tier II	Negative

Source: Basel Committee Documents

2. Capital Conservation Buffer

Basel III introduces an extra buffer of 2.5% of common equity above the minimum requirement for Tier 1 common equity for the top-tier holding company of the banking group. It is intended to ensure that financial institutions have a cushion during times of financial and economic stress. The constraints on distributions will increase as the capital conservation buffer decreases further below the required amount. The capital conservation buffer requirement will apply as of January 1, 2016 at 0.625%, moving to 1.25% as of January 1, 2017, then 1.875% as of January 1, 2018 and will rise to the full 2.5% level by January 1, 2019 (at which point the total Tier 1 common equity target would effectively be 7%, i.e., a 4.5% minimum and a 2.5% conservation buffer). Under Basel III, institutions that meet the minimum ratio requirement but remain below 7% Tier 1 common equity target (i.e., the minimum plus a conservation buffer) would be expected to maintain prudent earnings retention policies with a view to meeting the conservation buffer as soon as reasonably possible. The Basel Committee has suggested that a quicker implementation may be appropriate in countries that are experiencing excessive credit growth.

Table 2: Illustration on distributable Earnings in Various Scenarios

Actual conservation capital as percentage of required conservation capital	Maximum Permissible earnings that can be distributed in the subsequent financial year
<25%	0
25 %-50%	20 %
50 %-75 %	40 %
75 %-100 %	40 %

Source: Basel Committee Documents

4. Counter Cyclical Buffer

The Basel committee has suggested that the counter cyclical buffer, consisting of equity or fully loss absorbing capital, could be fixed by the national authorities concerned once a year and that the buffer could range from 0% to 2.5% of risk weighted assets, depending on changes in the credit-to-GDP ratio. The primary objective of having a countercyclical buffer is to protect the banking sector from system-wide risks arising out of excessive aggregate credit growth. Typically, excessive credit growth would lead to the requirement for building up higher countercyclical buffer; however, the requirement could reduce during periods of stress, thereby releasing capital for the absorption of losses or for protection of banks against the impact of potential problems

Comparison on Capital Requirement

Overall, with the Basel III being implemented, the regulatory capital requirement for Indian banks could go up substantially in the long run (refer Table 3). Moreover, capital requirements could undergo a change in various scenarios, thereby putting restriction on banks' ability to distribute earnings.

Table 3: Regulatory Capital Adequacy Levels

	Proposed Basel III Norm	**Existing RBI Norm**
Common equity (after deductions)		4.5 %
Conservation buffer	2.5 %	Nil
Countercyclical buffer	0-2.5 %	Nil
Common equity +Conservation buffer +Countercyclical buffer	7-9.5 %	3.6 % (9.2 %)
Tier I(including the buffer)	8.5 -11 %	6 % (10 %)
Total capital(including the buffers)	10.5 -13 %	9 % (14.5 %)

Source: Basel Committee Documents

Table 4: Capital Requirements

Date	Milestone: Capital Requirements
2013	**Minimum capital requirements:** Start of the gradual phasing-in of the higher minimum capital requirements.
2015	**Minimum capital requirements:** Higher minimum capital requirements are fully implemented.
2016	**Conservation buffer:** Start of the gradual phasing-in of the conservation buffer.
2019	**Conservation buffer:** The conservation buffer is fully implemented.

Source: Basel Committee Documents

4. Leverabge

This aims to put a cap on build-up of leverage in the banking sector on a global basis for the first time. It will help to lessen the risk that eventual deleveraging could destabilize the sector, and introduce extra safeguards. The leverage ratio will be calculated in a comparable manner across jurisdictions, adjusting for any remaining differences in accounting standards. A trial leverage ratio of 3 per cent of Tier 1, or balance sheets cannot exceed 33 times Tier 1 capital, is to be trialed before a mandatory leverage ratio is introduced in January 2018.

Table 5: Leverage Ratios

Date	Milestone: Leverage Ratio
2011	**Supervisory monitoring:** Developing templates to track the leverage ratio and the underlying components.
2013	**Parallel run I:** The leverage ratio and its components will be tracked by supervisors but not disclosed and not mandatory.
2015	**Parallel run II:** The leverage ratio and its components will be tracked and disclosed but not mandatory.
2017	**Final adjustments:** Based on the results of the parallel run period, any final adjustments to the leverage ratio.
2018	**Mandatory requirement:** The leverage ratio will become a mandatory part of Basel III requirements.

Source: Basel Committee Documents

5. Liquidity

The world's first set of common liquidity requirements aims to ensure banks have enough liquid or cash-like assets to tide them through a very severe short-term shock and for less severe conditions in the medium to longer term. The short-term liquidity buffer is to be mostly sovereign debt but include high-quality corporate debt. A one year horizon liquidity buffer, known as a net stable funding ratio, will be trialed and become mandatory in January 2018.

Table 6: Liquidity Ratio

<table>
<tr><td></td><td>Proposed Basel III</td><td colspan="5">Existing RBI Norm</td></tr>
<tr><td rowspan="2">Liquidity Ratios</td><td rowspan="2">Liquidity Coverage Ratio = Stock of high quality liquid assets/Net cash outflows over a 30-day time period >=100%</td><td>Number of days</td><td>1</td><td>2-7</td><td>5-14</td><td>15-28</td></tr>
<tr><td>Maximum Permissible gap (as %of outflows)</td><td>5</td><td>10</td><td>15</td><td>20</td></tr>
<tr><td></td><td>Net Stable Funding Ratio (NSFR) = Available amount of stable funding/Required amount of stable funding >=100 %</td><td colspan="5">No such norm</td></tr>
</table>

Source: Basel Committee Documents

Table 7: Liquidity Requirements

Year	Milestone: Liquidity Requirements
2011	Observation period: Developing templates and supervisory monitoring of the liquidity ratios.
2015	Introduction of the LCR: Introduction of the Liquidity Coverage Ratio (LCR).
2018	Introduction of the NSFR: Introduction of the Net Stable Funding Ratio (NSFR).

Source: Basel Committee Documents

6. Risk Coverage

These proposals aim to strengthen capital requirements for counterparty credit exposures arising from banks' derivatives, repo and securities financing activities.

There will be a risk weighting of one to three per cent on banks' mark to-market and collateral exposures to a central counterparty. The weighting on none centrally cleared contracts will be higher.

Basel III Norms in Indian Perspective

According to RBI Governor D Subbarao, Indian banks are not likely to be impacted by the new capital rules. At the end of June 30, 2010, the aggregate capital to risk-weighted assets ratio of the Indian banking system stood at 13.4%, of which Tier-I capital constituted 9.3%. As such, RBI does not expect our banking system to be significantly stretched in meeting the proposed new capital rules, both in terms of the overall capital requirement and the quality of capital. There may be some negative impact arising from shifting some deductions from Tier-I and Tier-II capital to common equity. Indian banking system is moderately leveraged and PSU banks may not face problem in building buffer capital. Public Sector Banks should not be so much worried about meeting the capital requirements under the Basel III norms because the government will have to contribute to help public sector banks meet their capital requirements and also maintain their 51% ownership. Sinha Anand(2012), Deputy Governor, RBI has said that the Central Bank has already finalized certain portion of Basel III norms. As an impact of the previous crisis, two things have emerged, including countercyclical capital and counter –cyclical provisioning. Banking Sector has already done it in the past.

Table 8: Timeline of Basel III implementation in India

	January 1, 2013	March 31, 2014	March 31, 2015	March 31, 2016	March 31, 2017	March 31, 2018
Minimum common equity Tier I	4.5%	5.0%	5.5%	5.5%	5.5%	5.5%
Capital conservation buffer	0.0%	0.0%	0.625 %	1.25%	1.875 %	2.5%
Minimum Common Equity plus capital conservation buffer	4.5%	5.0%	5.625 %	6.75%	7.375 %	8.0%
Minimum Tier I capital	6.0%	6.5%	7%	7.0%	7.0%	7.0%
Minimum Tier I capital plus capital conservation buffer	6.0%	6.5%	7.625 %	8.25%	8.88%	9.50 %
Minimum total capital	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Minimum total capital plus capital conservation buffer	9.0%	9.%	9.625 %	10.25%	10.87 5%	11.5 %
Phase-in of all deductions from common equity tier I	20%	40%	60%	80%	100%	100 %

Source: ICRA Press Release May 3, 2012.

IV. Challenges Ahead

The adoption of Basel III norms significantly increases the regulatory capital requirement of Indian banks. Furthermore, within capital, the proportion of the more expensive core capital could increase. According to the proposed norms, the minimum core capital requirement is set to be raised to 4.5%. In addition, the introduction of the conservation and countercyclical buffer means that the capital requirement would increase to between 7% and 9.5%. Indian banks, as per the current norms are required to maintain Tier I capital of at least 6%. However, since innovative perpetual debt and perpetual non-cumulative preference shares

cannot exceed 40% of the 6% Tier I capital, the minimum core capital is 3.6% (i.e., 60% of 6%). Given that most Indian banks are capitalized well beyond the stipulated norms, they may not need substantial capital to meet the new stricter norms. However, there are differences among various banks. While core capital in most of the private sector banks and foreign banks exceeds 9%, there are some public sector banks that fall short of this benchmark. These public sector banks, which account for more than 70% of the assets in the banking sector and are a major source of funding for the productive sectors, are likely to face some constraints due to the implementation of the Basel III norms. These banks are also unable to freely raise capital from the market as the government has a policy of maintaining at least 51% stake in these banks. Currently, there are only six banks where the government stake is higher than 70%. The other option is for the government to infuse capital to these banks to augment their core capital. Moreover, a rise in risk-weighted assets as well as the proposed disqualification of some non-common Tier I and Tier II capital instruments for inclusion under regulatory capital would increase the requirement of additional capital. According to ICRA (2010), if risk-weighted assets were to grow at an annualized rate of 20%, there would be a requirement of additional capital by the banking sector (excluding foreign banks) of about Rs 6000 billion as a whole over the next nine years, ending on 31 March 2019. Of this, public sector banks would require about 75–80% of this additional capital and private Indian banks accounting for the rest. While the concept of a countercyclical buffer is intuitively appealing, operational zing it has many challenges. These include defining a business cycle in a global setting although business cycles are not globally synchronized, identifying an inflection point in the business cycle to indicate when to initiate building up the buffer, choosing the appropriate indicator that identifies both good and bad times, determining the right size of the buffer, etc. Given the different stages of financial sector development in different countries there will be a need to allow national discretion in applying the framework. In India there is also a concern about the variable (most likely the credit-to- GDP ratio) will be used to calibrate the countercyclical buffer. However, this may not be the most appropriate variable candidate for India (Subbarao 2010). Unlike in advanced countries, in India and other developing economies, the credit-to-GDP ratio is a volatile variable and is likely to go up for structural reasons like enhanced financial intermediation owing to high growth or efforts of deeper financial inclusion. Moreover, while credit growth can be a good indicator of the build up phase, credit contraction tends to be a lagging indicator of emerging pressures in the system. The primary challenge for India will be to develop the capability to collect accurate and relevant data granularly. Given that Indian financial markets were not subject to the same stress level as markets in advanced countries, predicting the appropriate stress scenario will be a tough call. However, at the same time, most Indian banks follow a retail business model whereby there is limited dependence on short-term or overnight funding. Furthermore, Indian banks possess a large amount of liquid assets that will enable them to meet new standards. From the Indian point of view, a key issue is the extent to which SLR holdings should be considered in the estimation of the liquidity ratios. On the one hand, while there is a case for these to be excluded as they are expected to be maintained on a regular basis; however, it would also be reasonable to treat at least a part of the SLR holdings in calculating the liquidity ratio under stressed conditions, especially since these are government bonds against which the RBI provides liquidity. In India, more than 70% of the banking sector is dominated by public sector banks, where compensation is determined by the government with the variable component limited. Furthermore, private and foreign banks are statutorily required to obtain the RBI's regulatory approval for remuneration of their whole-time directors and chief executive officers. Recently, in a move to join the global initiative on compensation structures and align Indian compensation structures to Financial Stability Board (FSB) guidelines, RBI issued draft guidelines on compensation of high-level executives. These guidelines attempt to ensure effective governance of compensation, align compensation with prudent risk taking, and improve supervisory oversight of compensation. However, the Indian banking system is currently facing a different predicament. With the majority of the banking sector also a part of the public sector, ideally one would like to attract the best talent

into this sector. However, there is a disparity between the compensation packages of public and private sector bank executives, the former receiving significantly less valuable packages. This disparity should be rectified as it is leading to a loss of talent from the public sector to private sector. The outgoing deputy governor of the Reserve Bank of India, Shyamala Gopinath, is confident that Indian banks have the necessary capital cushion to absorb the additional requirements of Basel III. Fast forwarding to current developments, banks in India are well placed to cope with new banking regulation sweeping the global financial services industry, such as Basel III. "Banks in India are adequately capitalized and common equity of banks in India stood at 8.38% as of December 2010 and if we take tier 1 capital, it was 8.60%," To maintain the financial system, the RBI has trusted foreign banks to set up subsidiaries in India if they want to do substantial business in the country. To encourage banks to operate as subsidiaries the RBI has offered a "less restrictive branch expansion policy".

The Way Out

There are a couple of possible resolutions to this problem of compliance to Basel III norms for Public Sector Banks. The first would be to introduce the concept of golden share for Indian banks as Margaret Thatcher the then Prime Minister of Britain did it in the 1980's for privatizing public sector entities. As a concept golden share means, reducing the stake in a company below 50% but retaining the majority voting rights. It basically delinks voting rights from ownership. So, as a solution the government can take up golden share to retail the voting rights but bring in funds from private players and reduce their stake below 50% in public sector banks.

An alternative to this is to create a banking sector holding company in which the Government will hold the majority stake, and the holding company in turn will hold majority stake in public sector banks. This was briefly outlined by the Finance Minister of India in his Union budget speech in March 2012. The Government can raise capital for the banking holding company through various means including a public offering. The modalities of the same are not clear as of now and will have to be closely watched for this to be a success. If implemented successfully this could be the biggest structural change in the Indian banking sector since nationalization in 1969 and 1980.

V. Conclusion

Basel III is an opportunity as well as challenge for banks. It can provide a solid foundation for the next developments in the banking sector, and it can ensure that past pitfalls are avoided. The primary objectives of the Basel reforms are to ensure the reduction of incidence, severity, and costs of financial crises and the associated output loss. As per the March 2010 dataset, the average common equity tier I capital of Public Sector Bank is 7.27 % and average CRAR is 13.21 %. The maximum and minimum of the core capital are 10.50 and 4.37 %.The CRAR of all the public sector bank is above 10.5 %. The average Common Equity Tier I Capital of Private Banks is 12.67 % and average CRAR is 14.91 %.The private banks are well cushioned above the Basel III defined Core (common equity tier I) are 17.31 % and 9.62 %. The CRAR of all the private banks is above 10.5 %. The average Common Equity Tier I Capital of Foreign Banks is 13.78 % and average CRAR is 16.39 %.The Foreign Banks are well cushioned above the Basel III defined Core (common equity tier I) capital. The maximum and minimum of the core capital are 17.29 % and 6.72 %.The CRAR of all the foreign banks is above 10.5 %. Where banks have strengthened their capital over the last few years through retained earnings and capital raisings, the implementation of Basel III is likely to have less of an impact on the global economy. To the extent that banks try to comply more quickly with Basel III's capital and leverage requirements, this may lead to an increase in loan spreads, the tightening of loan terms or a cut-back in lending volumes.

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"There are a terrible lot of lies going about the world, and the worst of it is that half of them are true."

Winston Churchill

Empirical Testing Procedures to analysis quantitative data using EViews technique

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Abstract

The main purpose of this paper is to justify and describe in detail the methodological process for empirical studies to analyze quantitative data using EViews technique. In addition, as an example a study conducted by Nasef (2010) who examined the impact of natural resource on traditional sectors were provided. He applied econometrics techniques to examine and test whether there was an instance of the Dutch Disease within a context of Libya. Various research methods are employed in his study.

Keywords: quantitative techniques, EViews, unit root, co-integration, Libya

I. Introduction

Quantitative analysis techniques are needed to support the research process. These techniques range from creating simple charts or tables. They illustrate the frequency of occurrence using basic statistics to make possible comparisons from establishing statistical relationships between variables to complex statistical modeling. The use of computer software in quantitative analysis is widely known in academia. The paper seeks to justify and describe in detail the methodological process by which quantitative data were collected in order to fulfill the objectives of a study. The technique of data analysis using EViews is discussed; in addition case study as an example was introduced. Empirical Testing procedures were explained and conducted on Libya as a case study.

II. Analyzing Quntitative Data

Quantitative data are data in a raw form, which need to be processed to make them useful, that is, to turn them into useful information. Quantitative analysis techniques, such as graphs, charts and statistics allow researchers to explore, present, describe and examine the relationships and trends of these data. The term quantitative data refers to all numerical data or all material containing data which could usefully be quantified to help scholars to answer research questions and meet their objectives (Saunders et al, 2007).

EViews is a statistical package and is used mainly for econometrics analysis. It is developed by Quantitative Micro Software (QMS). EViews can be used for general statistical analysis and econometric analyses, such as cross-section and panel data analysis, time series estimation and forecasting. It supports file formats from Excel, SPSS and TSP among others.

I. Empirical Testing Procedure

The equations of the model will be estimated using various econometrics techniques. First, the unit root test will be performed to test the stationarity of all variables used in a study and then the co-integration test will be used to examine if there are long-run relationships among the variables.

Unit root Test (Integration Test)

Analysis of a time series assumes implicitly that the statistics being analyzed are in fact stationary. This implies that the variance and the covariance of a time series remain the same, no matter at what time a series is measured. Nevertheless, in practice, most time series are non-stationary, since the value of the variable in one period is a significant factor in determining the variable's value in the next period and the error terms for successive observations may be auto correlated (Maddala, 1992). The use of non-stationary data may lead to spurious regressions. That is, regressing a time series variable on another time series variable, where both show a strong trend over-time will often demonstrate a very high coefficient of determination and have a high R2 even though the variables are totally

unrelated. This circumstance represents the problem of spurious regression, due to the fact that the high R2 observed is due to the presence of the trend rather than to the exhibition of the true relationship between the variables involved in the model (Gujarati, 1995). Spurious regression normally refers to estimating models that produce very high R2 and t statistics, even when no significant relationship exists between the two sides of the equation (Granger and Newbold, 1974). Brooks (2008) argues that if standard regression techniques are applied to non-stationary data, the outcome could be a regression result which looks good under standard measures, but it is really insignificant. To avoid such a problem (spurious regression), it is necessary to test for stationarity via the unit root test. The latter is a method of determining the order of integration needed for obtaining stationarity. The pioneer work on testing for the unit root in a time series was done by Dickey and Fuller in 1970s. It is thus termed the Dickey-Fuller (DF) approach. This approach is forceful against a reasonable degree of heteroscedasticity, which refers to the situation where the errors do not have a constant variance . This can be solved by using either the Augmented Dickey-Fuller (ADF) or Phillips-Perron (PP) tests. These approaches incorporate the lagged values of the effect (dependent) variable in the regression function, with the number of lags being chosen, simply to be sufficient to remove the autocorrelation in the residuals (Watsham and Parramore, 1998).

In general, the series of Yt is stationary after differencing (d) times, then Yt is integrated of order d, or I (d) where d stands for the number of unit roots that the series (Yt) contains. It is broadly used that the unit root process is called an integrated of order 1 or for short I(1) process. On the other hand, a stationary process is called an I(0) process. The current research will use the Augmented Dickey-Fuller (ADF) test method to test for unit root (Dickey and Fuller, 1981). In general, the DF equation can be written as:

$$yt = \emptyset y_{t-1} + \mu_t \quad (1)$$

where μ_t is a random error term which follows the classical assumptions, namely, it has zero mean, constant variance and is non-autocorrelated (Cook and Weisberg, 1982). The aim of such a test is to examine the null hypotheses that $\emptyset = 1$ (H0: series contain a unit root) against the alternative one $\emptyset < 1$ (H1: series is stationary). If $\emptyset$, the coefficient of Yt-1, is equal to one, then a situation of non-stationarity appears. Therefore, when the regression is run and $\emptyset$ is found to equal 1, the stochastic variable Y_{t-1} is said to have a unit root (also known as a random walk). In the literature, the DF tests are known as the τ (tau) tests, whose critical values have been tabulated by Dickey and Fuller (1979) on the basis of Monte Carlo simulations. DF tests can be conducted allowing for many options which are an intercept, or an intercept and trend, or neither.

Visual examination of the data of this study demonstrates that none of the series shows a trend. A linear trend appears when the increase and decrease in a series of observed values over consecutive time phases are roughly constant (Daniel and Terrell, 1989). Therefore, all unit root test regressions in this study were run with an intercept but no trend term. If the time series for variable Yt illustrates stationarity at the level, it will be integrated of order zero, represented as I (0). In contrast, if Yt is not stationary, it must be transformed by taking the differences of this variable. If the first difference of a non-stationary variable is stationary and can be integrated of order one, denoted as I (1) at any of the reported significance levels, and if second differences are essential to achieve stationarity, then the variable is integrated of order two and so on. Several criteria are used to examine the fitness and the efficiency of the model. These criteria for model assessment include t-Statistics, F-Statistics, DW and unadjusted and adjusted R^2, among others. Nasef (2010) examined the impact of natural resource on traditional sectors. He applied econometrics techniques to examine and test whether there was an instance of the Dutch Disease within a context of Libya. Various research methods are employed in his study.

In the case of Libya, even though the local currency is fixed to the SDR, the US dollar accounts for a large proportion of the SDR basket. In addition, the oil price is measured by US dollar. Consequently, the oil boom, which occurred in the 1970s, is expected to have had a negative impact on the real exchange rate, rather than on the nominal exchange rate. However, to test if

the oil boom did indeed negatively affect the Libyan real exchange rate, the following hypothesis should be tested:

H0: βt and $\lambda t = 0$ null hypothesis

H1: βt and $\lambda t < 0$ alternative hypothesis

where βt is the coefficient of the boom represented by the oil revenue while λt stands for either the government expenditure or the money supply. The equations for the real exchange rate can be denoted as follows:

$$reert = \alpha 1 + \beta 1\ roilt + \lambda 1\ gexpt + dumt + e1 \quad (2)$$

Where roil, gexp and ms represent the oil revenues, government expenditure and the money supply, respectively, while e is the error term and dum is a dummy variable measuring the external shock of economic sanctions.

Following either the ADF test or the P-P test, all the independent and dependent variables are found to be integrated of order one namely I(1). The results of both tests are reported in Table 1 and Table 2 respectively. Table 1 illustrates the results that all variables are shown stationary at first difference level, thus the null hypothesis is rejected as long as the test statistics are bigger than the critical values. These results allow us to test the following models: 1) if the real effective exchange rate (REER) of the Libyan Dinar changes together with oil revenues (ROIL) and government expenditure (GEXP); 2) if REER of the Libyan Dinar changes together with oil revenues (ROIL) and money supply (MS); 3) if the tradable goods sector (T) changes together with REER, ROIL and GEXP; 4) if the tradable goods sector (T) changes together with REER, ROIL and MS; 5) if the non-tradable goods sector (NT) changes together with REER, ROIL, and GEXP ; 6) if the non-tradable goods sector (NT) changes together with REER, ROIL, and MS.

[1]For more details see Brooks, 2008. p 132

Table 1 ADF Test Results[2]

Variable	ADF-Test on Level1	ADF-Test on First Difference Level2	Conclusion
LnMS	1.892674	-6.368003*	I(1)
LnNT	2.601071	-3.470115**	I(1)
LnREER	-1.255661	-4.031524**	I(1)
LnROIL	-1.946374	-7.792249*	I(1)
LnT	0.312623	-3.949649**	I(1)
LnGEXP	-0.743561	-5.392161*	I(1)

Table 2 P-P Test Results

Variable	P-P Test on Level(1)	P-P Test on First Difference Level(2)	Conclusion
LnMS	2.458	-6.347	I(1)
LnNT	2.429	-3.506	I(1)
LnREER	-0.830	-4.028	I(1)
LnROIL	-1.812	-7.792	I(1)
LnT	0.014	-3.999	I(1)
LnGEXP	0.087	-6.348	I(1)

(1)1 percent Critical Value	-3.639	(2)1 percent Critical Value	-3.646
5 percent Critical Value	-2.951	5 percent Critical Value	-2.954
10 percent Critical Value	-2.614	10 percent Critical Value	-2.615

-MacKinnon critical values for rejection of hypothesis of a unit root.*

Significant at the 1% and ** 5% level

This table reports the results from the Dickey and Fuller (1979) unit root test for first differences in the six variables used for the Libyan economic analysis. LnREER = logarithmic of Real Effective Exchange Rate, LnROIL = logarithmic of oil revenues, LnGEXP = logarithmic of Government Expenditure, LnMS = logarithmic of Money Supply, LnNT= logarithmic of non-tradable goods sector and LnT = logarithmic of tradable goods sector. ADF = Adjusted Dickey-Fuller Statistic.

Co-integration Test

If all the variables were found stationary at the same level, the co-integration test can be run to examine if there is a long-run relationship between them. There are two approaches widely used in most empirical studies for the co-integration test, namely, the approaches of Engle and Granger (1987) and Johansen-Juselius(1990).The conception of co-integration was first introduced by Granger (1981) to investigate short-run and long-run or equilibrium relationships between macroeconomic time series (Ghosh and Gilmore, 1997). To understand a co-integration relationship between variables, suppose two time series, Y_t and X_t , which are both non-stationary or I (1). Let us suppose that Y_t and X_t show the same trend; thus they may be tied together in the long run. If Y_t and are X_t I (1), a regression is run, such as:

$$Y_t=\beta X_t+\varepsilon_t \qquad (3)$$

Co-integration tests in this research are conducted using the method developed by Johansen (1988) and Johansen and Juselius (1990). This procedure is the most reliable test for co-integration. Brooks (2008) argues that if there are more than two variables, the Johansen VAR framework is appropriate to use in a co-integration test (Brooks, 2008). For the variables under investigation in this study, a co-integration test is performed for the "Dutch Disease" hypothesis in Libya, to verify the existence of a long-run equilibrium relationship between the variables.

Johansen Approach

This approach is based on maximum likelihood estimation of a vector autoregressive system. Johansen and Juselius (1990) develop two likelihood percentage tests: (1) the likelihood ratio test based on the maximal eigenvalue, which evaluates the H0 of r co-integrating vector (s) against the H1 of (r+1) co-integrating vectors; (2) the likelihood ratio test based on the trace test, which evaluates the H0 of, at most, r co-integrating vectors versus the H1 of p co-integrating vectors. The Johansen test can be affected by the lag length employed in the VECM. It is helpful to select the lag length optimally. According to Johansen (1988), a p-dimensional VAR of order k can be specified as follows:

$$X_t=C+\pi_{t-1}X_{t-1}+\pi_{t-2}Xt\text{-}2+....+\pi_{t-k}X_{t-k}+\mu t \qquad (4)$$

This equation can be rewritten as

$$\Delta X_t=C+\Sigma\theta i\pi_{t-i}\Delta Xt\text{-}+\pi_{t-k}X_{t-k}+\mu_t \qquad (5)$$

$$\theta i = -\ (\pi 1+\pi 2);\ =\ (\pi 1+\pi 2+\ldots\ldots+\pi k)-I$$

where the vectors θi consist of short-run parameters which capture the disequilibrium features of the data and the matrix π contains the information on the long-run relationships corresponding directly to the equilibrium relationships. Thus, the co-integration analysis can separate the long-run equilibrium features of the data from their short-run dynamics (Hu et al., 2008)[3].

Co-integration Test with REER

As all the variables are stationary at the same level, as shown in the Augmented Dickey-Fuller (ADF) (1981) and the Philips-Perron (P-P) tests, so the co-integration test can be run to examine if there is a long relationship between all variables. Johansen co-integration (1988) method will be used for this.

The Johansen test can be affected by the lag length employed in the Vector Error Correction Model VECM. It is helpful to select the lag length optimally. Therefore, the first step is to specify a lag length for the VAR, on the basis of the likelihood ratio test. Different lag orders have been tried in order to examine the compatibility of the results for choice of lags. Using the annual data, the method was applied using one, two, three and four VAR lags to obtain the best results. Table 3 shows the Selected Number of Co-integrating Relations by Model . To select appropriate model specifications (that may include deterministic components such as intercepts and trends or both) the researcher examined the sensitivity of the result to the type of specification used. Table 3 displays the results across the five types of model and the type of test relate to the number of co-integrating vectors. The results suggest that there is at least two co-integrating vectors. The appropriate model specifications therefore are intercept (no trend) because the reason provided earlier in this chapter that a visual examination of the data of the current study demonstrates that none of the series shows trends.

For more details about the Johansen approach see Brooks, 2008, pp 350-354.

For further details of all Selected Number of Co-integrating Relations by Model see Appendix 1.

Table 3 The Number of Co-integrating Relations by Model (Equation 2)

Sample: 1970 2004					
Included observations: 31					
Series: REER ROIL GEXP DUM					
Lags interval: 1 to 3					
Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	1	2	2	2	2
Max-Eig	1	2	2	2	2
*Critical values based on MacKinnon-Haug-Michelis (1999)					

Selected (0.05 level*)

In this case, the results of the application of the Johansen procedure to the identification of long run relationships of REER with all the possible co-integrating vectors normalised with respect to the GEXP and ROIL, have all been estimated at 3 co-integrating vectors upon the assumption that there is an intercept (no trend) in CE and test VAR.

Table 4 provides the long-run tests based on the maximal Eigen value of the stochastic matrix and the trace of the stochastic matrix. The inclusion of the numbers of lags is considered appropriate as no serial correlation and serious normality problems arise. The co-integrating vector has been estimated with a provision for 3 lags with a dummy variable (DUM).

Table 4 Long-run relationship (Equation2)

H0		H1	
Eigen values (lambda)	Rank ≤ r	Trace statistics (rank ≤ (p=4))	Max-lambda statistics (rank ≤ (r+1))
0.753543	0	80.46963	43.41761
0.575912	1	37.05203	26.59226
0.199343	2	10.45977	6.892021
0.108713	3	3.567753	3.567753

Table 5 shows the results of the Johansen-Juselius co-integration test of REER against, ROIL, GEXP and DUM. Using the Trace statistics, we tested the null hypothesis that (r) = 0 against the alternative that (r) = is at most 1. Our statistic of 80.46 exceeds the critical value of 47.85 which leads to the rejection of the hypothesis of no co-integrating relationship. The Max-lambda statistic of 43.41 also exceeds its corresponding critical value of 27.58 which is consistent with the result using the Trace statistic. The second step was to test the H0 that the rank as most one (r =1). In this case, the Trace statistic of 37.05 is also bigger than its critical value of 29.79 and thus the H0 is rejected.

Diagnostic Tests in Co-integration Analysis

For each ECM, we applied the following standard diagnostic test statistic to test for the validity of the model. These are the Lagrange Multiplier (LM) test developed by Godfrey (1978b), which tests for residual serial correlation; the White (1980) heteroscedasticity test; the cumulative sum test (CUSUM); and cumulative sum of squares test (CUSUMSQ) for structural stability, proposed by Brown et al. (1975).

Parameter Stability Test

This can be tested by one of two types of test, namely, the Chow and predictive failure tests. The Chow parameter stability test can be conducted as follows:

1) Split the data into sub-periods.
2) Estimate the regression over the entire period and then for the sub-

period

3) Obtain the RSS for each regression.

4) In the case of sub-period being in two parts [not sure if this is what you meant], the test statistic can be conducted by:

$$\text{test statistic} = \frac{RSS - (RSS1 + RSS2)}{RSS1 + RSS2} \times \frac{T - 2K}{K} \quad (6)$$

Where: RSS = Residual sum of squares for the entire period, RSS1 = Residual sum of squares for sub-period 1, RSS2 = Residual sum of squares for sub-period 2, T = no. of observations, 2k = no. of regressors in the unrestricted regression (e.g. 2nd sub-period), k = no. of regressors in each unrestricted regression

5) Perform the test. The H0 (that the parameters are in a stable state) is rejected if the value of the test is greater than the critical value from the f-distribution.

However, in the Chow test it is necessary to have enough data to do the regression in sub-periods. Alternatively to the Chow test, the stability test can be done by the predictive failure test. The latter works by estimating the regression over a long sub-period and then using these coefficient estimates for predicting the values of the independent variables for the other period, as follows:

1) Run the regression for entire period and calculate RSS

2) Run the regression for the large sub-sample and then obtain RSS_1

T2 = no. of observations that the model is attempting to predict

$$\text{test statistic} = \frac{RSS - RSS_1}{RSS_1} \times \frac{T_2 - K}{T_2} \quad (7)$$

So far, regressions of REER have been estimated. These regressions embody the implicit assumption that the parameters are constant for the whole sample. This implicit assumption can be tested using parameter stability tests. The H0 (parameters are stable) is rejected if the value of the test is greater than the critical value from the f-distribution. The parameters stability test is to test the follows hypotheses:

H0: null hypothesis of stability test

H1:alternative hypothesis of instability *test*

We tested stability of parameters using EViews 6. This software gives three versions of the test statistics, namely; F-test, Log likelihood ratio and Wald Statistic. The latter two tests are based on x2 formulations. Table 5 shows test statistics of REER for Equation 2. We believe that the year 1982 can be considered as a breakpoint because in that year there was a downward trend in the oil revenues curve (Figure 1).

Figure 1 The Oil Revenues 1962-2004

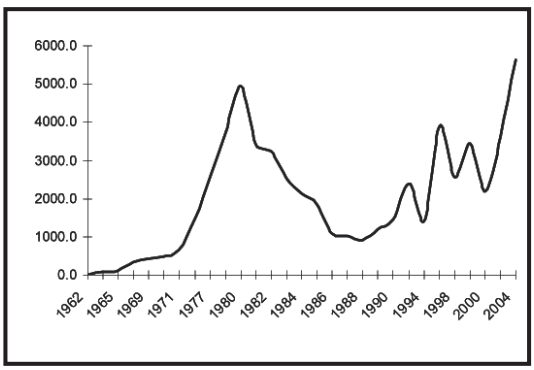
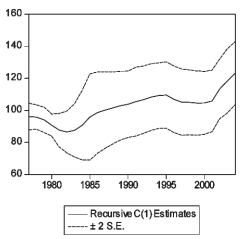


Table 5 Chow Breakpoint Test: 1982 (Equation 2)

Null Hypothesis: No breaks at specified breakpoints			
Varying regressors: All equation variables			
Equation Sample: 1970 2004			
F-statistic	14.39346	Prob. F(3,29)	0.0000
Log likelihood ratio	31.91553	Prob. Chi-Square(3)	0.0000
Wald Statistic	43.18037	Prob. Chi-Square(3)	0.0000

The results show that all three test statistics (F-test, Log likelihood ratio and Wald Statistic) are greater than their critical values F(2.34) = 3.32 at 5% level. One can reject the null hypothesis thus the parameters



are inconstant across the two sub-periods.

The Recursive Estimation Test

To see if the model can be considered adequate, the recursive estimation test is conducted. Since the line is well within the confidence bands (± 2 standard error bands around), it can be said that the null hypothesis of stability is not rejected (Brooks, 2008). The Recursive Estimation Test with REER:

To see if the model can be considered adequate, the recursive estimation test is conducted. The figures of recursive coefficients are shown in Figure 2 presenting the recursive estimates and ± 2 standard error bands around them. In addition, the CUSUM Tests of estimated equations (Equation 2) are shown in following figures (Figure 3). Since the line is well within the confidence bands, it can be said that the null hypothesis of stability is not rejected (Brooks, 2008).

Figure 2 Recursive Coefficients Test (Equation 2)

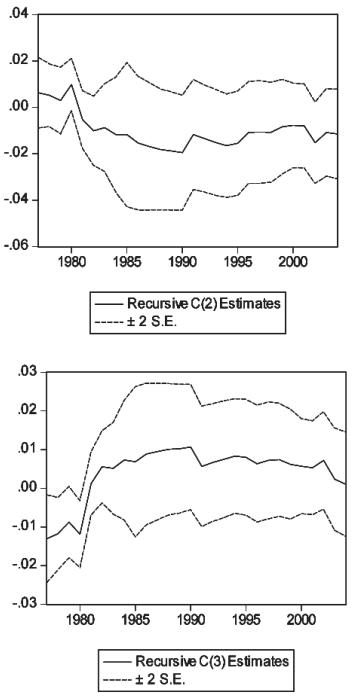
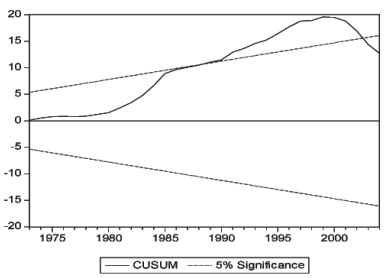


Figure 3 CUSUM test graph (Equation 2)



To sum up, the major outcomes of the previous empirical research are that the wealth income that accrued to the government had partly been transmitted to the national economy. This can be considered as evidence of the spending effect of the boom through the government expenditure, and/or the supply of money; and secondly, this was followed by an appreciation in the real exchange rate of the national currency and an increase in the relative price of the non-tradable to tradable goods. These call for reallocation of the economy resources.

The magnitude of analyzing the impact of the boom on the real exchange rate appears from its very significant role in the economic activities. This conclusion, theoretically, may lead to reallocation of resources. Thus, it is necessary to test the impact of the oil boom on the supply of both the traded and non-traded good sectors.

The main two findings of the previous empirical outcome are:1) the increase in oil revenues that accrued to the government had been partially transferred to the domestic economy. This was evident from the spending effect of the boom through government expenditure, and/or the money supply; (2) this was followed by an appreciation in the real exchange rate of the Libyan Dinar and a rise in the relative price of the non-tradable to tradable goods. The importance of such a tendency is related to their impact on the reallocation of resources in the economy. Without any immediate economic adjustments, the theory predicts that the production of the tradable goods sector could suffer from reduction during the boom period. Here, one should determine empirically if the national economy had experienced such a negative side-effect, resulting from the boom and reflecting the contraction of the output of the traded goods sector.

III. Conclusion

Quantitative analysis can be conducted using personal-computer-based analyzed software ranging from spreadsheets (Excel) to more advanced data management and statistical analysis software packages (Minitab, SPSS, TSP and EViews). The later was used in this paper to obtain different

techniques to analysis quantitative data such as unit root test, co-integration test and Parameter Stability Test. moreover; this paper underlines these empirical testing applied on case study conducted by Nasef (2010).

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Appendix 1

Selected (0.05 level*) Number of Co-integrating Relations by Model

Sample: 1970 2004					
Included observations: 31					
Series: REER ROIL GEXP DUM					
Lags interval: 1 to 3					
Selected (0.05 level*) Number of Cointegrating Relations by Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	1	2	2	2	2
Max-Eig	1	2	2	2	2
*Critical values based on MacKinnon-Haug-Michelis (1999)					
Information Criteria by Rank and Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept
No. of CEs	No Trend	No Trend	No Trend	Trend	Trend
	Log Likelihood by Rank (rows) and Model (columns)				
0	-584.5548	-584.5548	-582.4751	-582.4751	-579.9646
1	-568.6988	-561.5699	-560.7663	-556.4953	-554.2955
2	-562.6204	-548.2737	-547.4702	-543.1545	-540.9647
3	-559.9703	-544.7980	-544.0242	-536.3438	-534.4070
4	-559.8470	-542.2403	-542.2403	-533.2007	-533.2007
	Akaike Information Criteria by Rank (rows) and Model (columns)				
0	40.80999	40.80999	40.93388	40.93388	41.02997
1	40.30315	39.90774	40.04944	39.83840	39.89003
2	40.42712	39.63056	39.70775	39.55836	39.54611*
3	40.77228	39.98697	40.00156	39.69960	39.63916
4	41.28045	40.40260	40.40260	40.07746	40.07746
	Schwarz Criteria by Rank (rows) and Model (columns)				
0	43.03036	43.03036	43.33928	43.33928	43.62040
1	42.89358	42.54442*	42.82490	42.66012	42.85052
2	43.38761	42.68357	42.85327	42.79639	42.87666
3	44.10283	43.45629	43.51714	43.35396	43.33977
4	44.98106	44.28824	44.28824	44.14814	44.14814
*Critical values based on MacKinnon-Haug-Michelis (1999)					
Information Criteria by Rank and Model					
Data Trend:	None	None	Linear	Linear	Quadratic

Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept
No. of CEs	No Trend	No Trend	No Trend	Trend	Trend
	Log Likelihood by Rank (rows) and Model (columns)				
0	-584.5548	-584.5548	-582.4751	-582.4751	-579.9646
1	-568.6988	-561.5699	-560.7663	-556.4953	-554.2955
2	-562.6204	-548.2737	-547.4702	-543.1545	-540.9647
3	-559.9703	-544.7980	-544.0242	-536.3438	-534.4070
4	-559.8470	-542.2403	-542.2403	-533.2007	-533.2007
	Akaike Information Criteria by Rank (rows) and Model (columns)				
0	40.80999	40.80999	40.93388	40.93388	41.02997
1	40.30315	39.90774	40.04944	39.83840	39.89003
2	40.42712	39.63056	39.70775	39.55836	39.54611*
3	40.77228	39.98697	40.00156	39.69960	39.63916
4	41.28045	40.40260	40.40260	40.07746	40.07746
	Schwarz Criteria by Rank (rows) and Model (columns)				
0	43.03036	43.03036	43.33928	43.33928	43.62040
1	42.89358	42.54442*	42.82490	42.66012	42.85052
2	43.38761	42.68357	42.85327	42.79639	42.87666
3	44.10283	43.45629	43.51714	43.35396	43.33977
4	44.98106	44.28824	44.28824	44.14814	44.14814
Sample: 1970 2004					
Included observations: 30					
Series: REER ROIL MS DUM					
Lags interval: 1 to 4					
Selected (0.05 level*) Number of Co-integrating Relations by Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	2	3	4	3	3
Max-Eig	2	3	4	3	3
*Critical values based on MacKinnon-Haug-Michelis (1999)					
Information Criteria by Rank and Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept
No. of CEs	No Trend	No Trend	No Trend	Trend	Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	-555.8771	-555.8771	-553.9910	-553.9910	-547.0299
1	-523.2337	-522.9610	-521.4274	-517.3260	-511.1902
2	-506.0242	-505.7329	-505.5904	-498.4185	-494.5267
3	-501.5500	-494.5529	-494.5358	-483.3643	-480.2628
4	-501.4882	-490.4633	-490.4633	-478.8118	-478.8118

Akaike Information Criteria by Rank (rows) and Model (columns)					
0	41.32514	41.32514	41.46607	41.46607	41.26866
1	39.68225	39.73073	39.82849	39.62173	39.41268
2	39.06828	39.18219	39.30603	38.96123	38.83512
3	39.30333	39.03686	39.10239	38.55762	38.41752*
4	39.83255	39.36422	39.36422	38.85412	38.85412
Schwarz Criteria by Rank (rows) and Model (columns)					
0	44.31436	44.31436	44.64211	44.64211	44.63153
1	43.04512	43.14032	43.37819	43.21814	43.14921
2	42.80481*	43.01213	43.22938	42.97800	42.94530
3	43.41351	43.28716	43.39939	42.99475	42.90135
4	44.31638	44.03488	44.03488	43.71161	43.71161
Included observations: 33					
Series: T REER ROIL GEXP DUM					
Lags interval: 1 to 1					
Selected (0.05 level*) Number of Cointegrating Relations by Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	2	2	2	2	5
Max-Eig	2	2	2	2	1
*Critical values based on MacKinnon-Haug-Michelis (1999)					
Information Criteria by Rank and Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept
No. of CEs	No Trend	No Trend	No Trend	Trend	Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	-846.4261	-846.4261	-840.9095	-840.9095	-836.7611
1	-823.2217	-823.1224	-821.2159	-816.0985	-812.5433
2	-807.3233	-806.6103	-805.5264	-799.8205	-798.5479
3	-801.9669	-797.8394	-796.7732	-790.4541	-789.3720
4	-800.4468	-792.6001	-791.5683	-781.9479	-781.5903
5	-800.4448	-791.2208	-791.2208	-779.0616	-779.0616
Akaike Information Criteria by Rank (rows) and Model (columns)					
0	52.81370	52.81370	52.78240	52.78240	52.83401
1	52.01343	52.06802	52.19491	51.94537	51.97232
2	51.65596	51.73396	51.85008	51.62548*	51.73017
3	51.93739	51.86906	51.92565	51.72449	51.78012
4	52.45132	52.21819	52.21626	51.87563	51.91457
5	53.05726	52.80126	52.80126	52.36737	52.36737
Schwarz Criteria by Rank (rows) and Model (columns)					
0	53.94742	53.94742	54.14286	54.14286	54.42121
1	53.60064*	53.70058	54.00885	53.80466	54.01301
2	53.69665	53.86535	54.11752	53.98362	54.22435

3	54.43157	54.49928	54.64657	54.58146	54.72778
4	55.39899	55.34725	55.39067	55.23143	55.31572
5	56.45841	56.42916	56.42916	56.22201	56.22201
Sample: 1970 2004					
Included observations: 31					
Series: T REER ROIL MS DUM					
Lags interval: 1 to 3					
Selected (0.05 level*) Number of Cointegrating Relations by Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	3	5	5	4	3
Max-Eig	2	3	5	3	3
*Critical values based on MacKinnon-Haug-Michelis (1999)					
Information Criteria by Rank and Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept
No. of CEs	No Trend	No Trend	No Trend	Trend	Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	-729.6136	-729.6136	-726.4312	-726.4312	-715.0914
1	-710.1154	-697.2606	-694.1455	-692.1301	-684.4766
2	-695.5552	-681.4115	-679.8195	-671.9576	-665.2816
3	-687.8958	-669.1613	-668.4860	-658.1236	-652.8325
4	-682.0384	-661.6474	-661.2588	-650.6276	-646.2262
5	-682.0238	-656.2687	-656.2687	-645.1241	-645.1241
Akaike Information Criteria by Rank (rows) and Model (columns)					
0	51.91056	51.91056	52.02782	52.02782	51.61880
1	51.29777	50.53294	50.59003	50.52453	50.28881
2	51.00356	50.22009	50.31093	49.93275	49.69559
3	51.15457	50.13944	50.22490	49.74991	49.53758*
4	51.42183	50.36435	50.40379	49.97597	49.75653
5	52.06605	50.72701	50.72701	50.33059	50.33059
Schwarz Criteria by Rank (rows) and Model (columns)					
0	55.37988	55.37988	55.72843	55.72843	55.55070
1	55.22967	54.51110*	54.75322	54.73397	54.68329
2	55.39804	54.70709	54.93670	54.65103	54.55264
3	56.01162	55.13527	55.31324	54.97702	54.85721
4	56.74146	55.86901	55.95471	55.71192	55.53873
5	57.84826	56.74051	56.74051	56.57537	56.57537
Sample: 1970 2004					
Included observations: 33					
Series: NT REER ROIL GEXP DUM					
Lags interval: 1 to 1					
Selected (0.05 level*) Number of Cointegrating Relations by Model					
Data Trend:	None	None	Linear	Linear	Quadratic

Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	3	3	3	3	5
Max-Eig	3	3	3	3	3
*Critical values based on MacKinnon-Haug-Michelis (1999)					
Information Criteria by Rank and Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept
No. of CEs	No Trend	No Trend	No Trend	Trend	Trend
Log Likelihood by Rank (rows) and Model (columns)					
0	-1071.965	-1071.965	-1067.258	-1067.258	-1060.648
1	-1049.555	-1038.616	-1034.207	-1033.100	-1026.490
2	-1031.252	-1017.712	-1015.719	-1003.754	-999.2904
3	-1018.098	-999.8566	-998.2505	-985.2668	-983.1466
4	-1011.150	-992.2425	-990.7090	-976.1893	-974.5721
5	-1008.631	-986.2175	-984.7576	-970.2378	-968.7571
Akaike Information Criteria by Rank (rows) and Model (columns)					
0	67.14941	67.14941	67.22776	67.22776	67.19079
1	66.51848	65.91611	65.95192	65.94545	65.84787
2	66.13649	65.43707	65.55875	64.95477	64.92669
3	66.06657	65.14282	65.22730	64.62223*	64.67555
4	66.37273	65.46924	65.49752	64.85996	64.88316
5	66.94734	65.89197	65.86410	65.28714	65.25800
Schwarz Criteria by Rank (rows) and Model (columns)					
0	68.78197	68.78197	69.13240	69.13240	69.36753
1	68.69521	68.13819	68.40075	68.43963	68.56880
2	68.85741	68.24869	68.55177	68.03848*	68.19180
3	69.33167	68.54398	68.76450	68.29548	68.48485
4	70.18202	69.45993	69.57890	69.12273	69.23663
5	71.30082	70.47219	70.48966	70.13945	70.15567
Sample: 1970 2004					
Includd observations: 32					
Series: NT REER ROIL MS DUM					
Lags interval: 1 to 2					
Selected (0.05 level*) Number of Cointegrating Relations by Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Test Type	No Intercept	Intercept	Intercept	Intercept	Intercept
	No Trend	No Trend	No Trend	Trend	Trend
Trace	4	5	5	4	4
Max-Eig	4	5	5	4	4
*Critical values based on MacKinnon-Haug-Michelis (1999)					
Information Criteria by Rank and Model					
Data Trend:	None	None	Linear	Linear	Quadratic
Rank or	No Intercept	Intercept	Intercept	Intercept	Intercept
No. of CEs	No Trend	No Trend	No Trend	Trend	Trend

Log Likelihood by Rank (rows) and Model (columns)					
0	-949.6442	-949.6442	-944.0854	-944.0854	-934.8594
1	-908.2685	-906.9937	-902.1011	-901.9439	-895.8847
2	-887.9402	-883.0312	-881.0538	-877.7111	-872.0811
3	-870.9290	-863.4841	-861.9366	-857.2768	-852.6975
4	-860.6507	-850.6049	-849.3833	-841.8709	-837.8162
5	-857.2557	-841.1757	-840.7927	-833.1654	-830.1759
Akaike Information Criteria by Rank (rows) and Model (columns)					
0	63.85276	63.85276	63.88034	63.88034	63.67871
1	62.01678	61.99960	62.00632	62.05899	61.99280
2	61.49626	61.31445	61.44086	61.35695	61.25507
3	61.18306	60.90525	60.99604	60.89230	60.79360
4	61.29067	60.91281	60.96145	60.74193	60.61351*
5	61.82848	61.13598	61.17454	61.01034	60.88599
Schwarz Criteria by Rank (rows) and Model (columns)					
0	67.15067	67.15067	67.45307	67.45307	67.52627
1	65.86434	65.89296	66.12870	66.22718	66.39000
2	65.89347	65.80327*	66.11289	66.12059	66.20193
3	66.12992	65.98953	66.21772	66.25140	66.29011
4	66.78718	66.59253	66.73279	66.69648	66.65967
5	67.87464	67.41116	67.49553	67.56034	67.48181

"The greatest part of a writer's time is spent in reading, in order to write: a man will turn over half a library to make one book."

— Samuel Johnson

Human resource management challenges in software industry

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Abstract:

The challenges and issues governing the management of human resource in the software industry in India is a sincere worry in the present days which needs a definite concentration. Due to the dynamic nature of human resources in software industry, increasing annual growth and lack of any set rules and regulations, it is obvious that the managers of Human resources in Indian software industry face new challenges. Organizations continue to grow and diversify their business prospects, which lead to additional human chain. The increasing pressure of clients, cost limits, productivity issues etc. demands high levels of talent in managing the manpower. In addition, Indian companies that has workforce globally present and compensation benefits that are varying across industries leading to High attrition levels. This paper explains some of the challenges in motivation, delegation of authority, work culture, training, pay compensation and attrition faced by HR managers and addresses certain solutions in facing such challenges though every industry has a unique structure.

Key words: Delegation, Work culture, Attrition, Pay compensation and Training.

I. Introduction

In India, beginning 1980, the software industry has emerged as the biggest contributor of Indian economy. In 1996, the government came up with a policy to encourage computer software industry. Thereafter the potential of the Indian software industry is well- known. Currently, it is one of the fastest growing economies and provides high quality employment for young people. Further, it earns significant revenue from exports and it is a highly desirable industry and has no undesirable environmental side effects.

The Software Industry is defined as the part of computer programming activity that is traded between software-producing organizations and corporate or individual software consumers. Industrial revolution was due to coal and steel whereas, Information Technology revolution is due to Software industry. Software industry has become a tool in our daily life as it finds its applications in all walks of life including communications, railways, financial services, education, hospital management, entertainment, etc.

Over the past years a significant changes have emerged in the software industry in India as well as worldwide. IBM has been the market leader in the software industry. However, Microsoft is the leading operating system supplier for the personal computers. Other companies namely, Sun Microsystems, the developer of the Java platform, Oracle , HP, Novell, Red Hat and Symantec had substantial presence in the software industry. In the internet era, Google is by far the fastest growing software company and it is also expanding its activities beyond internet search. However, in terms of revenues coming from software sales, the software industry is clearly dominated by Microsoft. India has been one of the major presences in the operations of the above industries.

Based on the revenue and number of employee population software companies in India are significantly classified as Tier -1, Tier -2 and Tier - 3 Companies. Companies usually have revenue more than US dollar 1 billion comes under tier-1 companies with more than 50000 employees. Global companies such as Accenture, HP Enterprise Services, and IBM fall into the category of tier -1 software industries which have large number of India-based employees and show a strong presence in India. Companies with revenue over 100 million US dollar comes under tier 2 companies with approximately less than 50,000 and above 10,000 employees such as TCS, Tech Mahindra Limited, Infosys Technologies Limited, Patni Computer Systems Limited,

Wipro Technologies Limited, Mahindra Satyam Computer Services Limited, HCL Technologies Limited and Larsen & Toubro InfoTech Limited fall into the category of tier -1 software industries which also have large number of India-based employees and show a strong presence in India.. Companies having revenue less than tier 2 companies are classified as tier 3.

II. Review of Literature

Motivation:

One aspect of maximizing work performance will involve motivation. According to Peter F Drucker, (1999) "The good ones among managers do not talk about their problems, but they know how to make subordinates talk about their problems". The managers should make their employees to speak about their issues and motivate them accordingly. As per Morley Steltner, (2006) "Good managers should avoid criticism and give feed back by inviting employees to evaluate their feedback and ask follow up questions."

Delegation:

Morley Steltner, (2006) says "Delegation should not be confused with assigning routine work to employees that falls within their normal jobs. True delegation involves giving someone the responsibility and authority to do something that is part of Manager's job." Empowerment of employees plays a major role in retention by an employee in an organization. Employees should be delegated with adequate powers to carry out the works. Even for petty works, when there is dependency it will make the employees to get annoyed.

Malone (1997) says 'Empowerment of employees could help to enhance the continuity of employees in organizations'. Prof Bruce L Katcher, (2007) says 'Employees are not happy when they aren't free to make their own decisions. They hate management for lack in trust '. Keller, (1995), says 'Superiors empowering subordinates by delegating responsibilities leads to subordinates satisfaction with their leaders and this makes employees to be committed to the organization and chances of quitting are minimal'. Therefore it is to be understood that when an employee is free to make a decision, he will be more satisfied and committed towards the job and chances of turnover will get minimized.

Work Culture:

Mismanagement of growth has resulted in the demise of most companies. Mangers of software industry are from a technological background and they become ineffective in managing the business. It is generally seen that the software companies are susceptible to stagnation and at an earlier stage than companies in other industries. Couger, (1988) says "Workers who have a greater variety of tasks stay in the job and task chacteristics have been found to be potential determinants of employees stay in the industry". Reiji Ohtaki Hugh Bucknall, (2005), says "The executive who is willing to move has become far more attractive. Organizations need the flexibility to move talented people quickly to take on positions where they needed.

Training and development:

W.David Rees and Christine porter ,(2008) says "Training and development has become even more important as a result of recent developments such as the accelerating rate of change and increased competitive pressures brought about by factors such as globalization and increasing development and application of information technology. Training and Development has always been an issue that organizations have to take seriously and if organized effectively should be viewed as an essential investment and not an avoidable cost. The return on investment involved should be such that as a result of training employees reach an acceptable stand and of performance more quickly than would otherwise have been the case."

Snell,(2007) says "The organization is responsible for supplying information about its mission, policies and plans for providing support for employee self assessment training and development."

Retention and Attrition: Employee retention has been a major concern for software industry in the present scenario. Many researchers have analyzed cause of employee attrition. The managers should read employees mind power with interest and offer new challenges. B.B Mahapatro, (2010) says "One of the toughest challenges for the HR managers in the software industry

is to deal with the prevalent high attrition levels. Though there is an adequate supply of resource staff at entry level, there are huge gaps in the middle and senior level management in the industry. Further, the salary growth plan for each employee is not well defined. This situation has resulted in increased levels of poaching and attrition between organizations. The industry average attrition rate is 30–35 per cent and could range up to 60 per cent." (Source: www.grin.com/en/e-book/184601/drivers-of-employee-satisfaction-and-attrition)

Pay & Rewards: The HAY Group – Thomas P. Flannery, (1996), says senior leadership which often remains focused on cutting costs and increasing profits. They look at pay as anything more than a margin in terms of reducing expense. And HR compensation professionals often see pay purely in terms of attracting and retaining talent. Monetary satisfaction is the one way of retaining the employees. Griffeth, (2000), says 'Pay and pay-related variables have a modest effect on turn over. There is relationship between pay, a person's performance and turnover.' Actually the pay and pay related issues are indirectly proportional to employee turnover. More the employee paid, less the rate of attrition. Hence it is the responsibility of an organization to make employee satisfaction towards pay and perks to reduce attrition rate. Christian M.Ellis, (2002), says 'Measurement is the key to the success of incentive plans because it communicates the importance of established organization goals. What gets measured and rewarded gets attention'. Employee will be interested in job and committed to work if rewards based on performance are given. It will be appreciated by the employee if their performance is noticed and rewarded by top management.

Stress: Firth,(2007), says 'The experience of job related stress, the range factors that lead to the same , lack of commitment in the industry play a major role for an employee to quit' . Hudson says 'Employees who experience increased stress due to work/life conflict and decreased perceptions of control over their work and non-work demands are less productive, less committed to, and satisfied with, their organization and more likely to be absent or leave the organization'. The managers of software organizations should be able to recognize the symptoms stress and place successful techniques in managing stress. J.A.Fuller, (2003), says 'A constant diet of even low-level stressful events has the potential to cause workers to experience gradually increasing levels of strain over time'. Such increasing levels of negative emotions will impact in work. HR focus implies 'Over achievers can experience burnout when unrealistic work goals are unattainable'.

III. Discussion

Current trends in Indian Market

1. The Indian economy is facing challenges in to the western markets
2. Attrition and retention of talented personnel
3. The gap between supply and demand of quality trained people

Motivation: The most widely reported motivator of software professionals is the ability to identify with the task. This means that the task should have clear goals, be interesting to the individual, be clearly defined and be linked into the wider set of activities .Some of the other factors that can motivate the employees in software industry are

- Employee participation/involvement/ working with others.
- Support from senior management support, teambuilding and communication
- Opportunity for advancement, promotion prospect, career planning
- Sense of belonging/supportive relationships
- Scope for increased pay and benefits
- Recognition for a high quality job done
- Opportunity to specialize in technically challenging work
- Flexibility in work times, work location
- Empowerment/responsibility
- Trust/respect

Delegation: The work structure of the software industry show the software teams are

globally distributed in software development projects. Virtual teams are an important work structure in global software development. The distributed team structure enables access to a diverse set of expertise which is often not available in one location. This distributed structure requires the best leader delegation to sub-teams and trust between sub-teams. Leader delegation related to teamwork process that improves team members' motivation and satisfaction with the leader. Cultural distance and geographical distance impair trust development between members across sub-teams is greater challenge to be tackled. Temporal distance causes conflicts related to excessive overtime and meeting scheduling. Trust in sub-teams is critical to improving motivation in a global software project There exists language differences among software team members posing additional challenge for the HR managers for evolving delegation strategies to improve team members' trust and their motivation.

Work Culture: The work culture of software industry is different from other traditional industries in many ways. The software industry follows a 'global corporate culture' where lack of bureaucracy, openness, and flexibility and employee empowerments are the key ideologies. Mobility is particularly important whether the small size of single operations limit both carrier opportunities and available talent pool. Treating all operations within the region as a single executive resource pool creates economies of scale and opportunities of advancement "

Training and development: Employees form the basis of the software industry. Training & developing employees to keep them abreast thus forms a major challenge. Most of the top software companies have their own training facility wherein the training to fresh employees given for three to six months. Thus, training programs form a huge part of the cost .As software industry found to be competitive employing of skilled talent has come up as the most critical challenge as the fight for best talent is greater than ever. Further Training & Developing Potential Leaders & Engaging employees come up as the other two top concerns requiring dedicated efforts

Retention and Attrition: It is always more profitable by retaining employees than acquiring new employees. Managers have to build an effective employee retention system as shown in the Figure.1.managing growth and containing inflation a backdrop of an uncertain global environment. Due to the recent, global economic issues such as Euro zone crisis and rising commodity prices, during this fiscal year 2011 -2012 Indian economy show slow down. Domestic growth rate was impacted by tightening of the monetary policy by RBI. The budget pegged Gross Domestic Product (GDP) for the year 2011-12 to have grown at 6.9% primarily due to deceleration in industrial growth. The estimated GDP growth in 2012-13 is at 7.6%. The Wholesale Price Index (WPI) inflation for all commodities for the period of March 2011 to January 2012 moderated to 6.6 per cent. (Source: Economic survey 2011 -12). The key challenges for the software industry are:

4. Economic Slowdown in the west as software industry has its revenue linked

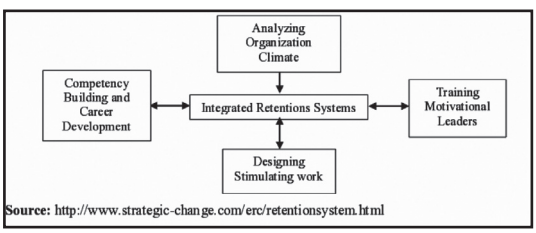

Figure -1.Employee retention system model.

Management has to understand 'why employees leave' and identify the high risk of attrition by accurately predicting attrition rate. Most of the employees have given better pay as the topmost reason to leave points to increasing presence of MNCs with better pay scales in the industry. Better utilization of current skills is one of the top attrition reasons. Employees also leave organizations for personal reasons like marriage, relocation etc. Before many employees leave, they become disengaged; this in turn makes the employee uncommitted, marginally productive, absenteeism and in extreme cases working against the interest of the organization. If root causes of the employee disengagement are correctly found out, the root causes can be eradicated by on-target solution which in turn increases the performance of employee in right positive direction. The following facts found to exist in the current year:

1. Junior management (JM) level faces highest level of attrition. (Source: Deloitte Compensation Trends Survey 2012 – Human Capital advisory Services)
2. Better pay in other software companies is the foremost reason for the employee to leave the organizations.
3. Many employees wants to pursue further studies in India and abroad looking for improves skill sets.
4. Improved work - life balance is another area which is slowly but steadily gaining momentum as employees seek to consciously decrease levels of stress at the workplace.

Pay & Rewards:

According to the c, during the last year the overall pay increments in software sector remained relatively low. Majority of the software companies have given increments to all their employees in the range of 10-12%, across all levels - Junior, Middle, Senior & Top Management. Top Management increments across organizations have been the lowest. The reason for this low rate of increment can be attributed to the Economic slowdown in the West. The industry Median for annual Increment is 11% and it is lower when compared to the previous year. This is due to the uncertain market sentiment. (Source: Deloitte Compensation Trends Survey 2012 – Human Capital advisory Services)

Stress: Most of the employees in the software industry work based on definite time line, which naturally induces stress. It is understood that when there is stress in the job, naturally commitment towards the work will get reduced. This increases the tendency of the employee to quit and seek comfortable job. Low spirits and short temperedness are some indicators of stress. Lesser stressful work for long period also sometimes induces distress and makes the employee to think of moving out. Whenever software industry gets downsized, work pressure will be more on remaining employees because of more work expected to be performed by them, with fewer subordinates. This will lead increase trend of attrition.

IV. Conclusion

This paper presents an overview of the challenges faced by the changing scenario of software industries in India. The complete dynamic nature of the business requires constant involvement of the Human resource manager to provide strategic solutions for the challenges. HR must constantly be aware of the business strategies and the opportunities and threats facing the organization. It is also of critical importance that the top management also fully involve in implementing the processes sincerely and to add value to the organization. The various strategies suggested in this paper including the retention can be better practiced by motivating the employees which the will result in increased organizational effectiveness.

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Research consists in seeing what everyone else has seen, but thinking what no one else has thought.”

— Albert Szent-Gyorgyi