

RVIM JOURNAL OF MANAGEMENT RESEARCH

Vol.6

Issue 1

January - June 2014

ISSN 0974 - 6722

-
- Pg 1-10 Emotional Intelligence and its impact on Psychological Well-Being of Post-Graduate students -An Empirical study
*Dr. Nisar Ahmed
Prof. Asha Ganesh
Seema Sambargi*
-
- Pg 11-19 A Study on Exchange Rate Fluctuations and its Impact on BSE
*Dr. Y Nagaraju
Sneha. D*
-
- Pg 20-29 Qualitative Characteristics of Financial Information before and after Implementation of XBRL
*S. Raghavendra Raju
Dr. B. Mahadevappa*
-
- Pg 30-37 Path Analysis to demonstrate the relationship between different dimensions of Regular Investment and Investment Satisfaction using Visual PLS
*R. Suyam Praba
Prof. K. Malarmathi*
-
- Pg 38-48 A Study on the Investors Perception towards Derivatives
*Dr. P. Paramashivaiah
Mr. Puttaswamy*
-
- Pg 49-56 Impact of Demographics on Consumers Willingness to Pay Premium: A Study of Organic Food Products
*Shashikiran L
Dr. C. Madhavaiah*
-
- Pg 57-71 Financial Planning Behaviour Among Earning Youths in Bangalore - A Comparative Study of Employees of Financial Sector and Non-Financial Sector
*Gowrisha
Manjunath M
Suman T S*
-
- Pg 72-81 Effect of SMET on Emotions and Self-Esteem - A Study of Managers in a Large PSU in India"
*Rabindra Acharya
Dr. Balaram Pradhan
Dr. HR Nagendra*
-



Rashtreeya Sikshana Samithi Trust

R.V. INSTITUTE OF MANAGEMENT

Accredited by NAAC with "A" Grade



From the Desk of Chief Editor ...✍

We are placing Volume 6 Issue 1 of the RVIM Journal of Management Research in the hands of academic experts and subscribers. The current issue of Journal contains original research papers in different areas of Management like Finance, Marketing, Human Resources and Yoga & Management. A twofold blind referral process is involved in selecting the papers for this Journal. The research papers in the Journal will enhance the managerial knowledge and thoughts of the readers. This Journal would serve as a channel for knowledge sharing among academicians and practicing managers about contemporary management issues and problems. The Journal intends to fulfill the information required by researchers across the countries. We hope that the readers will thoroughly benefit from the papers being compiled in the Journal and give their valuable feedback to enhance the quality in our future publications of the Journal.

Dr. T V Raju
Chief Editor

RVIM Journal of Management Research is a bi-annual publication from the portals of R. V. Institute of Management, Bangalore. Its objective is to disseminate knowledge in functional areas of management with inter-disciplinary approach.

Copyright © 2014.

R. V. Institute of Management,
Bangalore

ISSN 0974 - 6722

Disclaimer

Views expressed in the articles are those of the author(s) only. All articles in this journal have undergone a blind review process.

Published & Edited by :

Dr. T.V. Raju, Director
R. V. Institute of Management,
on behalf of R. V. Institute of
Management, Bangalore

Printed by :

Narayan M.
Kruthika Print-Ad
No. 58, 1st Cross, J.K. Puram,
Vinayakanagar, Adugodi Post,
Bangalore - 560 030. Ph : 080-2211 3419

Subscription

RVIM Journal of Management Research is published half yearly and is available against subscription only. Subscription rates for Individual / Institutions is Rs. 500/- per year.

For Subscription

The Chief Editor
R.V. INSTITUTE OF MANAGEMENT
CA 17, 26th Main, 36th Cross, 4th T^h Block,
Jayanagar, Bangalore - 560 041
Ph: 080-26547048, 42540300
Email : rvimjournal@gmail.com

RVIM JOURNAL OF MANAGEMENT RESEARCH

Vol.6

Issue 1

January - June 2014

ISSN 0974 - 6722

Chief Patron

Dr. M. K. Panduranga Setty
President
Rashtreeya Sikshana Samithi Trust
Bangalore

Patron

Sri A. V. S. Murthy
Hon. Secretary - RSST
Bangalore

Chief Editor

Dr. T. V. Raju
Director - R. V. Institute of Management
Bangalore

Patron

Dr. M. P. Shyam
Trustee - RSST, Chairman - Governing Council
RVIM, Bangalore.

Editorial Advisory Panel

Mr. P. B. Kotur
Manager – Talent Transformation
Wipro Technologies, Bangalore

Mr. Subhash Sharma
Dean – Indian Business Academy
Bangalore

Mr. Y. S. Hegde
Consultant – TCS Ltd.
Bangalore

Dr. N. S. Viswanath
Principal, M. P. Birla Institute of Management
Bangalore

Dr. S. Srikanta Swamy
Additional Director
Center for Research
Christ University, Bangalore

Dr. R. Krishna
Director - PG Studies
Cambridge Institute of Technology
Bangalore

Editorial Team

Mr. Gowrishya
Asst. Professor - RVIM, Bangalore

Marketing Team

Mrs. Bhavya Vikas
Asst. Professor - RVIM, Bangalore

Mr. A. Chandran
Asst. Professor - RVIM, Bangalore

Dr. Anupama Malagi
Asst. Professor, RVIM, Bangalore

Mr. Manjunath S. Menedhal
Asst. Professor - RVIM, Bangalore

Mrs. Das Sangita Hemant
Asst. Professor - RVIM, Bangalore

Mr. S. K. Manjunath
Public Relation Officer - RVIM, Bangalore

EMOTIONAL INTELLIGENCE AND ITS IMPACT ON PSYCHOLOGICAL WELL-BEING OF POST-GRADUATE STUDENTS -AN EMPIRICAL STUDY

Dr. Nisar Ahmed*
Prof. Asha Ganesh**
Seema Sambargi***

Abstract :

Emotional Intelligence (EI) is recognized as a significant trait which contributes to Psychological Well-Being (PWB) of a person. In today's competitive world it is important to develop one's Emotional Intelligence in order to improve your mental well-being. The objective of this paper is to examine the impact of Emotional Intelligence on the different dimensions of the psychiatric well-being of post-graduate students and to find out if there are any gender differences. Boston Emotional Questionnaire was used to assess the EI of 93 post graduate students, both male and female of different colleges in Bangalore city. The Psychological Well-Being of these students were also assessed using Ryaff's PWB Scale, an attempt was made to see if there were any gender differences using 't' test correlation and regression. The EQ scores of students were compared to their PWB scores to find out the impact of EQ on PWB.

Key words: Emotional Intelligence, Psychological Well-Being, Students' behavior.

Introduction

EI is the ability to perceive emotion in others and express one's emotions; use emotions to guide thinking in self and others; understand how emotions operate; and manage and regulate emotions in self and others (Mayer and Salovey, 1997; Salovey and Mayer, 1990).

The idea of emotional intelligence has evoked a great deal of interest recently, mainly due to the influence of Goleman's best-selling book, *Emotional Intelligence*. Goleman makes a compelling case for emotional intelligence being important for success in living and very likely more important than intellectual intelligence. People appreciate the message in Goleman's book because they have long resented the excessive importance that has been attributed to IQ. Everyone knows of people with average IQs who are highly successful and of others with very high IQs— stars of their high school classes—who never made it in the real world. This raises the question of what the first group has that the other is missing. Goleman's answer is that it has emotional intelligence (Epstein, 1998).

Psychologists have been trying to define intelligence for more than a century and broadly speaking it indicates one's cognitive capacity and functioning i.e. one's ability to learn, recall, apply, think, reason and abstract. Traditionally, this cognitive capacity has been measured by the IQ or Intelligence Quotient. By the 1940s there was a general discomfort in accepting IQ alone as an indicator of an individual's ability to adapt and cope with life situations and we find Wechsler (1940) broadening the framework by including 'non intelligence' factors covering the social factors too. Later in the same sphere, we find competence, maturity, emotional thought and logical thought also being added (Gardener, 1983; Griffiths, 1997).

Perhaps emotional intelligence can be linked to the neurology of structures in the frontal lobes of the brain, which are known to be important for regulating and controlling emotion (Bechara et al. 2000). Already recent research suggests that both frontal and temporal lobes support emotionally intelligent reasoning (Reis et al. 2007). In addition, the quality of interactions with caregivers and peers, which

Dr. Nisar Ahmed*, Director, Measi Institute of Management, Chennai
Prof. Asha Ganesh**, Principal, C.B. Bhandari Jain College, Bangalore, E-mail : ashaganash@gmail.com
Seema Sambargi***, Associate Professor, Adarsh Institute of Management and Information Technology, Bangalore

the child experiences, is known to affect emotional development. For example, maltreatment and deprivation are known to have various serious adverse effects (Smith and Walden 1999).

Emotionally intelligent people can use their emotions as an aid in their thinking, such as by being able to re-create an emotion in themselves in order to understand what someone else is feeling, having emotions that direct their thinking to issues of significance, and generating emotions that provide a context for thinking in certain ways, such as producing feelings of sadness and happiness to obtain different perspectives on certain issues. Emotionally intelligent people can also understand and analyze emotions, such as distinguishing between shame and guilt and jealousy and envy. They can also control their emotions in a way that promotes intellectual and emotional growth, such as by delaying acting on emotional impulses and taking into account the influence of emotions on their rational thinking. (Epstein, 1998).

Emotional Intelligence and Psychological Well-Being

Psychological well-being in its simplest form represents "a generalized feeling of happiness" (Schnur & Ryff, 1997, p 55). It represents wellness that is conceived as "progressions of continued growth across the life course" (Ryff, 1995, p 99). In order to capture the positive aspects of well-being Ryff (1989, 1995) structured a multi dimensional model comprising 5 dimensions such as positive evaluation of oneself (self acceptance), a feeling of sustained growth & development as a person (personal growth), the belief that life is meaningful (purpose in life), developing & maintaining good relations with others (positive relations with others), the ability to manage effectively one's own life and surrounding environment (environmental mastery) and a sense of independence & determination (autonomy).

Theory suggests that individuals with high emotional Intelligence exhibit a higher level of psychological well being and a lower level of emotional deficit than individuals with low level of emotional intelligence (Salovey & Mayer 1990). This is due to the fact that emotionally intelligent individuals are able to maintain positive mental states due to their ability to effectively manage, recognize, understand assess & regulate their emotions (Mayer & Salovey, 1997).

Research provides some evidence in support of this proposition. Higher EI was characterized by positive moods & higher self esteem (Schutte et al 2002). Petridge & Furnham found that trait emotional intelligence had a positive effect on perceived job control among both employed male and female adults. Palmer et al (2002) found a significant & positive relationship between overall EI & life satisfaction ($r=0.26, p<0.01$).

Literature Review

- ❖ A study by Babajide EO, Akintayo (2011) which adopted survey research design using 3 sets of questionnaires data collection. t-test revealed that there was a significant influence of occupational stress on workers behaviour & PWB. There was no significant difference in the perception of male & female respondents on the influence of occupational stress on their PWB. Based on the findings of the study it was recommended that organizational support system that could combat physical, social & psychological effects of occupational stress on workers PWB & their BCH should be provided at the workplace. Also industrial counseling services should be introduced in work organizations in order to tender therapeutic services, that foster reduction in the effects of Organizational study on worker's PWB. The present study seeks to examine the influence of EI on PWB of post graduate students.

- ❖ A study exploring the social factors such as gender, educational level of parents, family income, family relationships on PWB of undergraduate students conducted by Daraci mina(2013) PostHoc test using Ryff's PWB Scale & testing data using aroicias t-test reveals that there were no gender differentiation in relation to PWB of students. Education level of parents, occupation, income & family relations impact student's PWB.

The present study focuses on the different factors of Emotional Intelligence & their impact on various aspects which contribute PWB of post graduate students.

- ❖ Garcia Moradi (2012) in their study on "The Affective Temperaments and Well Being" investigated the role of the affective temperamental model in distinguishing variation in well being among adolescents from Sweden & Iran. A correlation analysis was conducted to explore relation between all variables across cultures, self-actualizing adolescents reported higher life satisfaction & PWB. The PWB sub-scale of self acceptance was positively related to life satisfaction regardless of temperamental profile or cultural background. However, findings showed that Iranian adolescents with self destructive profiles reported higher life satisfaction than high affective Iranians. The present study focuses on the EI factors which have a bearing on the different dimensions of psychological well being of post-graduate students.
- ❖ A study by Carmeli, Abraham, Yitzhak-Halevy, Weisberg Jacob (2009) on "The Relationship between EI and PWB" examined the relationship between EI & four aspects of PWB(Self acceptance, life satisfaction, somatic complaints & self-esteem). Data was collected using 2 structured surveys and the results of four hierarchical regression models provide

support for the positive association between EI and PWB components- self esteem, life satisfaction & self acceptance. Only marginal significant support was found for the negative relationship between EI & somatic complaints. The study also indicates that employees who experience a Psychological state of well being may function better than employees who experienced emotional defeat.

- ❖ Augusto-Landa; Jose M; Pulido-Martos; Manuel; Lopez-Zafra; Esther in their study, "Does perceived Emotional Intelligence and Optimism/Pessimism predict PWB" examine the possible role of optimism & perceived EI as possible predictions of PWB dimensions proposed by Ryaff with a specific pattern of relationships as model using correlation analysis & structural equation modeling. The result suggests relationship between emotional attention & purpose in life as well as with personal growth dimensions of PWB. Results also show positive relationship between clarity & emotional regulation. In respect of PWB components with regard to dispositional optimist versus pessimism, positive relationships were found between optimism & PWB dimensions & negative relationships between pessimism & PWB dimensions.

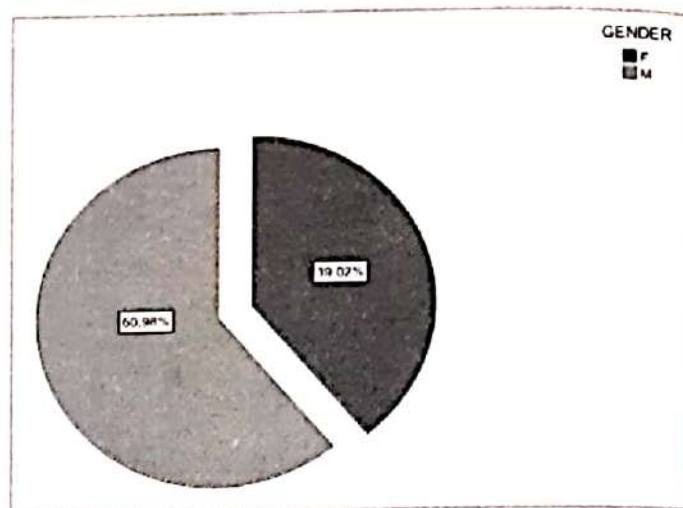
Objectives of the study:

1. To find out if there is a correlation between EI and PWB.
2. To analyze the impact of Emotional Intelligence on Psychological Well Being of Post-graduate students.
3. To examine whether there are significant gender differences in the EI and PWB of Post-graduate students.

Research Methodology

The study uses primary data collected from 205 post graduate management students who are from different parts of the country and studying in Bangalore. They were administered two standardized questionnaires: the Boston Emotional Intelligence Questionnaire to measure their EI and Ryaff's Psychological Well Being questionnaire to determine their Psychological Well Being. Independent 't' test, correlation and regression analysis were used to test the hypothesis and to determine whether EI had an impact on PWB of the students

Graph 1 Gender distribution



The sample of gender is distributed more or less same, 39% constitutes Female and 61% constituted Male.

Analysis and Results

Sample composition

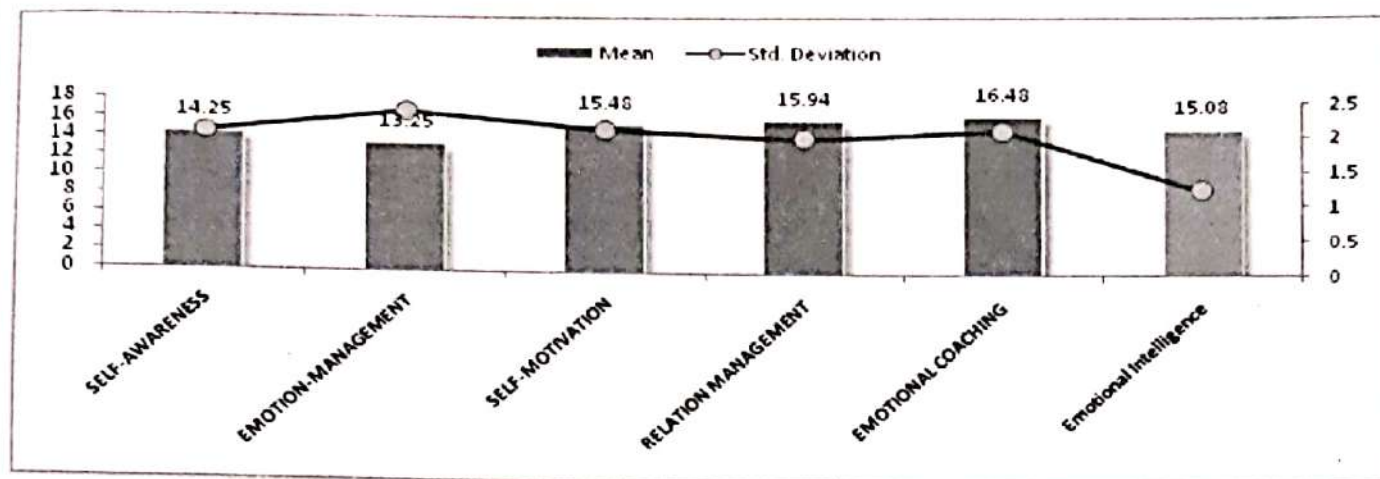
Table 1 Gender distribution

	Frequency	Percent
Female	80	39.0
Male	125	61.0
Total	205	100.0

Table 2 Descriptive statistics - Emotional Intelligence

	N	Mean	Std. Deviation
SELF-AWARENESS	205	14.25	2.022
EMOTION-MANAGEMENT	205	13.25	2.335
SELF-MOTIVATION	205	15.48	2.085
RELATION MANAGEMENT	205	15.94	1.960
EMOTIONAL COACHING	205	16.48	2.083
Emotional Intelligence	205	15.0790	1.22418

Graph 2 Descriptive statistics – Emotional Intelligence



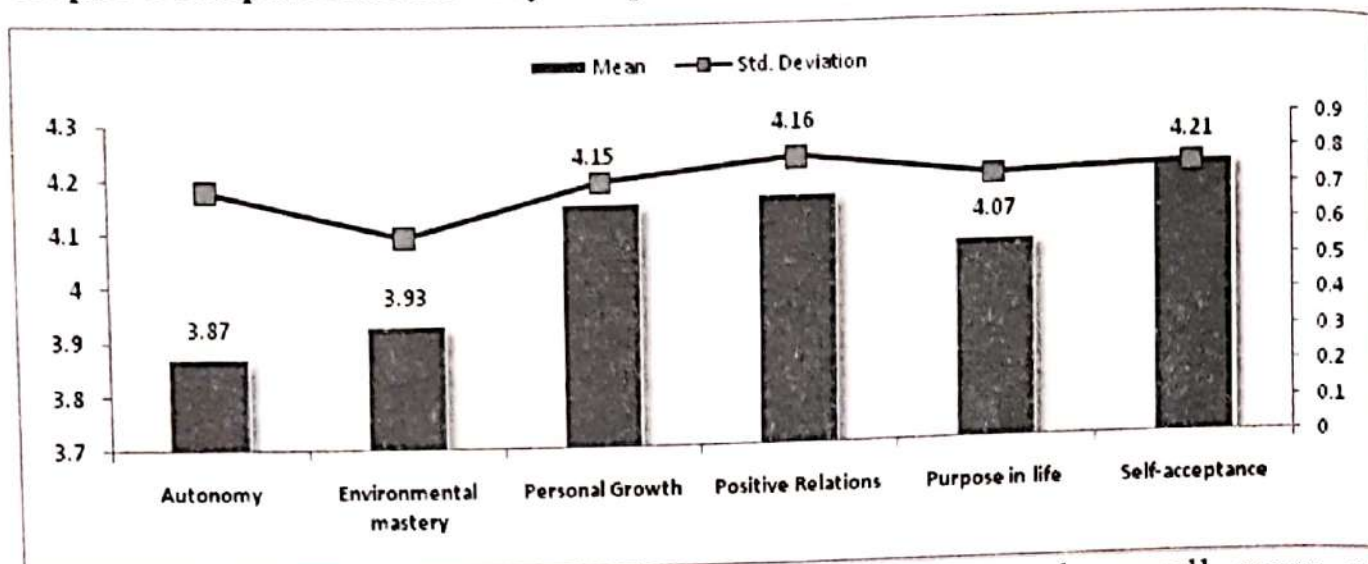
According to the Boston EI Questionnaire, the construct Emotional Intelligence has five dimensions, viz, SELF-AWARENESS, EMOTION-MANAGEMENT, SELF-MOTIVATION, RELATION-MANAGEMENT and EMOTIONAL COACHING. Each dimension has 5 items and each of the items are measured on a 4 point scale. For each dimension, scores should vary

from 4 to 40. The table showed the mean and standard deviation of each dimension and overall Emotional Intelligence score. Overall mean score is 15.08. Among the dimensions, Emotional coaching is highest, i.e., 16.48 and least is Emotional Management, i.e., 13.25. Standard deviation ranges from 1.9 to 2.2 which showed there is consistency among the dimensions given by the respondents

Table 3 Descriptive statistics – Psychological well being

	N	Mean	Std. Deviation
Autonomy	205	3.87	0.72
Environmental mastery	205	3.93	0.59
Personal Growth	205	4.15	0.74
Positive Relations	205	4.16	0.80
Purpose in life	205	4.07	0.74
Self-acceptance	205	4.21	0.76
Psychological well being	205	24.40	3.05

Graph 3 Descriptive statistics – Psychological well being



The construct Psychological well being has six dimensions namely Autonomy, Environmental mastery, Personal Growth, Positive Relations, Purpose in life and Self-acceptance. Each dimension has 7 items and each of the items are measured on a 6 point scale. Since each dimension's score is converted in to its mean score it should vary between 1 to 6. The table shows the mean and standard deviation of each

the dimensions and overall score of Psychological well being. Overall mean score is 4.21 and among the dimensions, Personal growth and Positive relations are the highest, that is, 4.15 and 4.16 respectively and least is Autonomy, i.e., 3.87 and Standard deviations range from .64 to .83 which shows consistency among the dimensions.

Table 4-Testing of Hypothesis for Emotional Intelligence

Independent t test

GENDER		N	Mean	Std. Deviation	Std. Error Mean	t	Sig. (2-tailed)
SELF-AWARENESS	M	125	13.99	2.09	0.19	-2.296	.023*
	F	80	14.65	1.86	0.21		
EMOTION-MANAGEMENT	M	125	13.66	2.32	0.21	3.257	.001*
	F	80	12.60	2.23	0.25		
SELF-MOTIVATION	M	125	15.38	2.10	0.19	-.875	.382
	F	80	15.64	2.06	0.23		
RELATION MANAGEMENT	M	125	15.88	2.07	0.19	-.560	.576
	F	80	16.04	1.78	0.20		
EMOTIONAL COACHING	M	125	16.33	1.94	0.17	-1.291	.198
	F	80	16.71	2.28	0.26		
Emotional Intelligence	M	125	15.0480	1.25	0.11	-.453	.651
	F	80	15.1275	1.19	0.13		

*5% level sign.

Ho: There is no significant difference between Male and Female on various dimensions of Emotional Intelligence

Ha: There is significant difference between Male and Female on various dimensions of Emotional Intelligence

The table shows the result of the Independent 't' test which is used to prove the above said hypothesis. When t value is +/- more than 1.96, the hypothesis is significant. In this case,

Emotional Intelligence, does not make difference between Male and Female respondents, however, there are two sub constructs of Emotional Intelligence, namely Self awareness and Emotion Management. The 't' values are more than 1.96 and their sig value is .008 and .045 respectively, which is less than .05; Hence these two sub constructs provides significant difference in the average score between Male and Female, but the rest of the sub constructs are perceived by Male and Female are in similar way.

Table 5 Testing of Hypothesis for Psychological Well being

Independent 't' test							
	GENDER	N	Mean	Std. Deviation	Std. Error Mean	t	Sig. (2-tailed)
Autonomy	M	125	3.89	0.71	0.06	.395	.693
	F	80	3.85	0.74	0.08		
Environmental mastery	M	125	3.93	0.59	0.05	.131	.896
	F	80	3.92	0.61	0.07		
Personal Growth	M	125	4.15	0.72	0.06	.007	.995
	F	80	4.15	0.77	0.09		
Positive Relations	M	125	4.20	0.77	0.07	1.005	.316
	F	80	4.09	0.84	0.09		
Purpose in life	M	125	4.07	0.73	0.07	-.072	.942
	F	80	4.08	0.77	0.09		
Self-acceptance	M	125	4.24	0.69	0.06	.641	.522
	F	80	4.17	0.86	0.10		
Psychological well being	M	125	24.49	2.87	0.26	.527	.599
	F	80	24.26	3.31	0.37		

*5% level sign.

Hypothesis

Ho: There is no significant difference between Male and Female on various dimensions of Psychological well being

Ha: There is significant difference between Male and Female on various dimensions of Psychological well being

The table shows the result of the Independent 't' test which is used to prove the above said hypothesis. From this table it is understood that, none of the sub constructs of Psychological well being is significant. Between Male and Female, there is significant difference on psychological well being.

Table 6 Correlation

Correlations							
	Autonomy	Environmental mastery	Personal Growth	Positive Relations	Purpose in life	Self-acceptance	Psychological well being
SELF-AWARENESS	.120*	.050	.200**	-.007	.035	-.003	.092
EMOTION-MANAGEMENT	.076	.021	-.013	.010	-.042	.119*	.041
SELF-MOTIVATION	.169**	.092	.133*	.190**	.169**	.185**	.228**
RELATION MANAGEMENT	.208**	.144*	.141*	.308**	.120*	.210**	.274**
EMOTIONAL COACHING	.239**	.142*	.050	.299**	.010	.201**	.228**
Emotional Intelligence	.274**	.150*	.169**	.267**	.095	.243**	.289**
*. Correlation is significant at the 0.05 level (1-tailed). **. Correlation is significant at the 0.01 level (1-tailed).							

Hypothesis

Ho: There is no relation between Emotional Intelligence and Psychological well being

Ha: There is relation between Emotional Intelligence and Psychological well being

The above table shows the outcome of the correlation analysis for the above said hypothesis.

The overall two constructs, Emotional Intelligence and Psychological well being is related to the extent of .365 and it is significant at 1% level. The constructs from Emotional intelligence such as Self motivation, Relation Management and Emotional coaching are very

much related to all the sub constructs of Psychological well being except 'Purpose in life', which are not very much significant.

Regression Analysis

Regression model is used to establish the linear relation between set of independent variables of Emotional intelligence and Psychological well being. From the previous hypothesis, correlation is established. In the regression equation given below, Y is the dependent variable and X1 to X5 are independent variables which are sub constructs of Emotional Intelligence.

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + e$$

Y - PSYCHOLOGICAL WELL BEING

X1 - SELF-AWARENESS

X2 - EMOTION-MANAGEMENT

X3 -SELF-MOTIVATION

X4 - RELATION MANAGEMENT

X5 - EMOTIONAL COACHING

b1 to b5 is beta of concerned X1 to X5

e is error.

Table 7 Model Summary

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
Linear	.451	0.20	0.17	2.69	5.63	.000*

R indicates the correlation coefficient of the model, i.e. .451, R square is the ratio which shows the accuracy of the model, i.e., .20. In other words, R square changes occurred in Psychological well being is due to the changes that occurred in Emotional intelligence

constructs. F value indicates the linear relation between Psychological well being and Emotional Intelligence constructs. Since sig value is .000 which is less than .05, the model is statistically significant at 5% level.

Table 8 Coefficient

Psychological well being	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	12.559	3.367		3.730	.000
X1 - SELF-AWARENESS	.000	.144	.000	.001	.999
X2 - EMOTION-MANAGEMENT	.081	.134	.058	-.601	.549
X3 -SELF-MOTIVATION	.290	.145	.208	1.994	.049*
X4 - RELATION MANAGEMENT	.426	.180	.284	2.363	.020*
X5 - EMOTIONAL COACHING	.132	.158	.099	.833	.407

*5% level sign ns = non sign.

The outcome of the table showed the coefficient value which is used to estimate the parameter Y. The unstandardized coefficient is substituted for the model equation.

$$Y = 12.559 + .000 X_1 + .081 X_2 + .290 X_3 + .426 X_4 + .132 X_5 + e$$

From the above equation value it is understood that, Relation Management can influence Psychological well being more than any other constructs in the model. In other words, 1 unit increase in Relation Management may lead to an increase of .426 on Psychological well being in terms of 6 point rating scale. Though the model contained 5 independent variables, only 2 sub constructs of Emotional intelligence are significant on Psychological well being at 5% level, namely X3 -SELF-MOTIVATION and X4 - RELATION MANAGEMENT. The other construct are not significant.

Managerial Implications

Educationists, academicians & recruiters should seek to improve the EQ of students who will step into the workplace after post- graduation. These students will be the HR assets of any organization and it is important to hire employees who exhibit high PWB. This may also help in retention of good employees by organizations and good work life balance by employees can be achieved. In the long run low attrition would reduce hiring costs of the organizations.

Conclusion

The above findings add to the research on adolescent student behavior. Adolescents have a tendency to behave in ways that are incongruent to their own self-conceptions. Hence the most prudent advise a parent or teacher can give to students may be that the best chances of a happy life is to work on improving their Emotional Intelligence.

References

1. Emmerling, Robert J.; Shanwal, Vinod K.; Mandal, ManasK.. Emotional Intelligence : Theoretical and Cultural Perspectives. New York, NY, USA: Nova Science Publishers, Inc., 2008. Pgs11- 12,17
2. Emerald Insight Staff (Contribution by). Discovering Emotional Intelligence. Bradford, GBR: Emerald Group Publishing Ltd, 2005. p vi.
3. Epstein, Seymour. Constructive Thinking : The Key to Emotional Intelligence. Westport, CT, USA: Greenwood Press, 1998. p 3.
4. Zoltners, Andris A.; Sinha, Prabhakant; Zoltners, GreggorA.. Complete Guide to Accelerating Sales Force Performance : How to Get More Sales from Your Sales Force. Saranac Lake, NY, USA: AMACOM Books, 2001. p xiii.
5. Colletti, Jerome A.; Fiss, Mary S.. Compensating New Sales Roles : How to Design Rewards That Work in Today's Selling Environment. Saranac Lake, NY, USA: AMACOM Books, 2001. p 3.
6. Martini, Nancy. Scientific Selling : Creating High-Performance Sales Teams Through Applied Psychology and Testing. Hoboken, NJ, USA: Wiley, 2012. p 2.
7. Zeidner, Moshe; Matthews, Gerald; Roberts, Richard D.. What We Know about Emotional Intelligence: How It Affects Learning, Work, Relationships, and Our Mental Health. Cambridge, MA, USA: MIT Press, 2009. p ix.
8. Babajide, EO, Akintayo(2011). Occupational Stress, Psychological Well-Being & Workers Behaviour in Manufacturing Industries in South-West Nigeria. International Journal of Management & Innovation' 3-1:32-42.
9. Daraci Mina (2013). Social Correlates of Psychological Well-Being among undergraduates' students in Mysore City, Social Indicators Research vol 1.14, P 567-590. Springer Science & Business Media.
10. Garcia .D, Moradi .S. (2013). The Affective Temperaments & Well-Being. Swedish & Iranian Adoloscents' Life Satisfaction & PWB, Journal of Happiness Studies 14.2, P 689-707, Springer Science & Business Media.
11. Carmeli, Abraham, Yitzhak-Halevy; Meyra; Weiserg, Jacob; "The Relationship between EI & PWB". Journal of Managerial Psychology 24.1(2009)66-78.
12. Augusto-Landa; Jose M; Pulido-Martos; Manuel; Lopez-Zafra, Esther. "Does perceived Emotional Intelligence and Optimism/Pessimism predict Psychological Well-Being". Journal of Happiness Studies 12.3 (June 2011): 463:474.

A STUDY ON EXCHANGE RATE FLUCTUATIONS AND ITS IMPACT ON BSE

Dr. Y Nagaraju*
Sneha. D**

Abstract :

The stock market is often considered as the primary indicator of countries' economic strength and development. Now a days more volatility of share prices in the stock market is related to exchange rates, as most of the companies are multinational companies. The main objective of this study is to analyze the relationship between BSE Sensex and Exchange rates of various currencies with respect to rupees. For the purpose of this study, daily prices of BSE Sensex returns and five exchange rates (USD, Euro, Yen, GBP and SGD) for five years are taken. This study uses the data from the period starting Jan 2009 till Dec 2013. Tools used for the study is test of co-linearity, Regression Analysis and Augmented Dickey Fuller test. The results of the study indicates exchange rates have affected the stock indices greatly during the year 2009 to 2013.

Key words : BSE Sensex, Exchange rate, Augmented Dickey Fuller test, Co-linearity.

1. Introduction

Financial Markets play an essential role in establishing a balanced and efficient financial system of a countries economy. Various internal and external factors affect the working of the stock market directly or indirectly. The link between the macroeconomic variables and the stock markets are well evidenced in the literature.

Literature that investigates the link between Exchange rate and Stock prices is not conclusive. There exists two major theories related to financial markets. The first approach concludes that exchange rates should lead to Stock prices . Exchange rate fluctuations that affect the value of the firm through changes in competitiveness and changes in the firm's assets and liabilities in foreign currency, eventually affect firm's profits and the value of equity showing a positive effect. Contrarily, changes in stock prices may affect the movements in Exchange rate through portfolio adjustments (inflow/outflow of foreign capital). If there is a persistent upward trend in stock price, inflows of foreign capital would increase. A decrease in stock price would cause a reduction in domestic investor's wealth leading to a fall in the demand for money and

lower Interest rates, causing capital outflows that would result in currency depreciation. Therefore under this approach, stock prices would lead Exchange rates with a negative correlation (Fama, 1970).

Exchange Rate

Exchange rate is the price of a nation's currency in terms of another currency. An exchange rate thus has two components, the domestic currency and a foreign currency, and can be quoted either directly or indirectly. In a direct quotation, the price of a unit of foreign currency is expressed in terms of the domestic currency. In an indirect quotation, the price of a unit of domestic currency is expressed in terms of the foreign currency. An exchange rate that does not have the domestic currency as one of the two currency components is known as a cross currency, or cross rate.

Exchange rates can be floating or fixed. While floating exchange rates – in which currency rates are determined by market force – are the norm for most major nations, some nations prefer to fix or peg their domestic currencies to a widely accepted currency like the US dollar.

Exchange rates can also be categorized as the

spot rate – which is the current rate – or a forward rate, which is the spot rate adjusted for interest rate differentials.

2. Importance of Stock Markets

The stock market is one of the most important sources for companies to raise money. This allows businesses to be publicly traded, or raise additional capital for expansion by selling shares of ownership of the company in a public market. The liquidity that an exchange provides affords investors the ability to quickly and easily sell securities. This is an attractive feature of investing in stocks, compared to other less liquid investments such as real estate. History has shown that the price of shares and other assets is an important part of the dynamics of economic activity, and can influence or be an indicator of social mood. An economy where the stock market is on the rise is considered to be an upcoming economy. In fact, the stock market is often considered the primary indicator of a country's economic strength and development. Rising share prices, for instance, tend to be associated with increased business investment and vice versa. Share prices also affect the wealth of households and their consumption. Therefore, central banks tend to keep an eye on the control and behavior of the stock market and, in general, on the smooth operation of financial system functions. Exchanges also act as the clearinghouse for each transaction, meaning that they collect and deliver the shares, and guarantee payment to the seller of a security. This eliminates the risk to an individual buyer or seller that the counterparty could default on the transaction. The smooth functioning of all these activities facilitates economic growth in that lower costs and enterprise risks promote the production of goods and services as well as employment. In this way the financial system contributes to increased prosperity.

3. Review of Literature

Richard A Ajayi, Joseph Friedman and Seyed M Mehdi (1998) employed monthly

and quarterly data on a set of advanced and emerging economies from 1973- 1983 to examine the relationship between real stock return differentials and changes in real exchange rates. Findings provided evidence to indicate unidirectional causality between the stock and currency markets in all the advanced economies but no consistent causal relations were observed in emerging economies. (Vol.9, Issue-2, Page: 241-251).

Abhay Pethe and Ajit Karnik (2000) applied the techniques of unit root tests, co integration and long run Granger non-causality test and tested the causal relationships between stock market index and exchange rate for India. The results showed that there is no long or short run association between stock prices and exchange rates for India. (Economic and Political Weekly 35: 5: 349-356).

Nath and Samanta (2003) employed the Granger causality test on daily data during the period March 1993 to December 2002. The empirical findings of the study suggest that these two markets do not have any causal relationship. When the study extended its analysis to verify if liberalization in both the markets brought them together, it was found that no significant causal relationship between the exchange rate and stock price movements, except for the years 1993, 2001 and 2002 during when a unidirectional causal influence from stock index return to return in forex market is detected and a very mild causal influence in the reverse direction is found in some years such as 1997 and 2002. (www.papers.ssrn.com, Date posted: 7th Dec 2003).

Alok Kumar Mishra S (2004) in his article "Stock Market and Foreign Exchange Market in India: Are they Related?" attempts to examine whether stock market and foreign exchange markets are related to each other or not. The study uses Granger's Causality test and Vector Auto Regression technique on monthly stock return, exchange rate interest rate and demand for money for the period April 1992 to

March 2002. The major findings of the study states that there exists a unidirectional causality between the exchange rate and interest rate and between the exchange rate return and demand for money; and there is no Granger's causality between the exchange rate return and stock return (South Asia Economic Journal, Vol.5, Issue 2, Page 209-232)

Akshay Madhava Y S and Mihir Dash (2008) have conducted a study on the impact of Currency Fluctuations on the IT Sector of India. The study encompasses 44 Indian IT companies, and employs Bodnar and Marston's model to calculate forex exposure. Further the correlation between forex exposure and the profitability measures of the companies is observed in addition to calculation of standard deviation and mean of companies' forex. The results of the study showed that FOREX exposure was especially alarming for a small fraction of small-cap IT companies. The mid-cap and large-cap IT companies had relatively low/moderate exposure levels. The majority of large-cap companies had already hedged their FOREX risk, and was not significantly affected by their respective FOREX exposures. (www.papers.ssrn.com, Date posted: 18th Jan 2009)

From the above review literature, it is observed that many studies have been undertaken to find the relationship between exchange rate market and the general stock market in India as well as other countries. However, it has been identified that very few research has been carried out on the specific share prices of the export and import oriented sectors of India, which has been conducted in the following report.

4. Statement of the problem

The purpose behind this study is to determine the extent to which stock index returns are impacted by fluctuations in exchange rates. The exchange rate fluctuation caused by several factors for example changes in export and import, changes in revenue and expenditure, changes in profit, changes in dividends, natural

calamities and hence changes in share price.

Nowadays more volatility of share prices in the stock market is related to exchange rates as most of the Companies are becoming Multinational Companies. The exchange rate fluctuation caused by several factors (discussed earlier) is a traditional worry to companies. It causes changes in exports and imports, leading to changes in revenue and expenditure, followed by changes in profits, changes in dividends, and hence changes in share prices. If the rupee appreciates, revenue of the exporting companies will decrease. Sometimes the profit earned by the exporting companies would become loss when converted to Indian Rupee. For an importing company, the depreciation of a rupee during wide fluctuations in the exchange rate, would turn profit into loss while converting to Indian Rupee. A slight appreciation or depreciation of a rupee would lead to changes in profit of the companies which in turn leads to changes in dividend and return available to the investors. Fluctuations in the exchange rate have a different impact on different sectors. Some sectors have a large impact while some sectors are not affected. Investors in order to reduce the volatility in the return of investment must invest in those sectors the share prices of which are not affected to a large extent due to fluctuations in the stock price.

5. Objectives of the Study

1. To analyze the relationship between BSE Sensex and exchange rate.
2. To study the effect of exchange rates on BSE returns.
3. To enable the investors in exploring the investment opportunities using the INR, USD, EURO, GBP, SGD exchange rates.

6. Hypothesis

H0- Exchange rate does not have a significant impact on stock index returns.

H1 – Exchange rate has a significant impact on stock index returns

7. Methodology

This study is based on secondary data. Daily returns of BSE Sensex and five exchange rates (USD, EURO, YEN, GBP and SGD) for five years are considered for this study. The span of the study is from January 2009 to December 2013. The data collected was analyzed with the help of statistical tools like test of Co-linearity, Regression Analysis, and Augmented Dickey Fuller (ADF) test.

This study is limited to five years and only five currencies have been compared.

8. RESULTS, ANALYSIS AND DISCUSSION

8.1 Test of co-linearity among independent variables:

Co-linearity is the term used to explain the independence of one variable to another. When variables are highly correlated they both express basically the same information. Statistically there should not be any multi co-linearity because if they exist, then independent variables are redundant and do not add any predictive value over each other. Therefore Pearson correlation coefficient has been used to arrive at the co-linearity among independent variables. First, bivariate correlation among the independent variables was examined to find out the multi co-linearity problem. The existence of correlation of more than 0.70 indicates that there is problem of multi co-linearity (Lewis-Back 1993). None of the pair-wise coefficient of correlation was more than 0.70. So, examination of correlation among the explanatory variables found no multi colinearity problem.

TABLE 1: Correlation matrix among the independent variables considered

	<i>BSE SENSEX</i>	<i>USD</i>	<i>EURO</i>	<i>GBP</i>	<i>Yen</i>	<i>SGD</i>
BSE SENSEX	1					
USD	0.226053354	1				
EURO	0.261760906	0.898294	1			
GBP	0.361853358	0.948293	0.941067	1		
Yen	0.238193834	0.634772	0.468618	0.656276	1	
SGD	0.492599897	0.918974	0.828625	0.926807	0.759652	1

Analysis:

From the above correlation matrix it is evident that all the currencies have weak correlation with SENSEX and all other currencies have a strong correlation with USD. Hence USD alone can be used to predict the relationship between exchange rate and SENSEX.

8.2 REGRESSION ANALYSIS

Multiple regression analysis is a powerful technique used for predicting the unknown value of a variable from the known value of two or more variables- also called the predictors.

H0: There is no relationship between exchange rate and SENSEX return

H1: There is relationship between exchange rate and SENSEX return

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.8722
R Square	0.7608
Adjusted R Square	0.7598
Standard Error	1270.6797
Observations	1243

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	6.352E+09	1.27E+09	786.7672	0
Residual	1237	1.997E+09	1614627		
Total	1242	8.349E+09			

	<i>Coefficient</i> <i>s</i>	<i>Standard</i> <i>Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper</i> <i>95%</i>
Intercept	29802.645 7	557.5949	53.4486	0.0000	28708.7095	30896.581 9
USD	-918.4945	22.7460	-40.3805	0.0000	-963.1195	-873.8695
EURO	-269.4613	19.8883	-13.5487	0.0000	-308.4798	-230.4427
GBP	365.8807	21.4650	17.0455	0.0000	323.7689	407.9926
Yen	- 29161.290 4	1009.1283	-28.8975	0.0000	-31141.082	-27181.498
SGD	1036.4833	21.9437	47.2338	0.0000	993.4324	1079.5343

Analysis

- The "R Square 0.7608" indicates that 76.08% of the variability in share returns, around the sample mean share return, is associated with the exchange rate.
- The column labeled F gives the overall F-test of H₀ and H₁
- The column labeled significance F has the associated p-value. From the ANOVA table the F-test statistic is 786.7672 with p-value '0'. Hence Reject H₀ and accept that there is a relationship between exchange rate and SENSEX return.

Inference

- The "R Square of 0.7608" indicates that the explanatory power of this regressions very strong.
- The coefficient of all the currencies have p-value of 0.0000 < 0.05. It is therefore concluded that relationship is statistically

significant at significance level $\alpha = 0.05$. Hence, all the exchange rates have significant impact on SENSEX.

8.3 ADF (Augmented Dickey Fuller) TEST

In statistics and econometrics, an augmented Dickey-Fuller test (ADF) is a test for a unit root in a time series sample. It is an augmented version of the Dickey-Fuller test for a larger and more complicated set of time series models. The augmented Dickey-Fuller (ADF) statistic, used in the test, is a negative number. The more negative it is, the stronger the rejection of the hypothesis that there is a unit root at some level of confidence. Stationarity is used as a tool in time series analysis, where the raw data are often transformed to become stationary, for example, economic data are often seasonal and/or dependent on the price level. Processes are described as trend stationary if they are a linear combination of a stationary process and one or more processes exhibiting a trend. Transforming this data to leave a stationary data set for analysis is referred to as detrending. Before doing

regression analysis, it is necessary to test whether the time series are stationary at levels by running Augmented Dickey fuller (ADF) test on the series. Because most time series are

non-stationary in levels, and the original data need to be transformed to obtain stationary series.

Constraint	ADF Values	Critical values
BSE Return	-21.056975*	1%(-3.435505) 5%(-2.863693) 10%(-2.567945)
US Dollar	-9.455525*	1%(-3.455525) 5%(-2.863709) 10%(-2.567952)
Euro	-10.720470*	1%(-3.435536) 5%(-2.863711) 10%(-2.567953)
Yen	-10.866148*	1%(-3.435531) 5%(-2.863709) 10%(-2.56952)
GBP	-10.747067*	1%(-3.435536) 5%(-2.863711) 10%(-2.567953)
SGD	-9.859107*	1%(-3.435531) 5%(-2.863709) 10%(-2.567952)

Where,

(** indicates acceptance of null hypothesis)

(* indicates rejection of null hypothesis)

Analysis

After conducting the ADF test the value of t-statistic are lesser than critical values and probability are 0.00000 at 1st difference for all the currencies.

Inference

After running the ADF test, ADF t-Statistic value is the lowest (highest negative value) as compared to the critical values at 1%, 5% and 10% level of significance. Thus null hypothesis rejected. So, the time series is stationary for all the currencies.

9. CONCLUSION

To conclude we can say that though many studies in various countries suggest that Exchange rate has a huge impact on stock prices and returns, the study conducted by us confirms the earlier findings. Stock indices BSE being representative of the economy and financial situation are affected by exchange rate. As per our study exchange rate has affected stock indices greatly from the year 2009 to 2013. It is evident from the Correlation matrix that there exists a strong correlation between the currencies considered for the study with USD. The existence of correlation between USD and Sensex is also noticeable. Hence USD can be used to predict the relationship between exchange rate and Sensex. Regression analysis also confirms that relationship is statistically significant at 5% level of significance with significant impact on Sensex. It is also evident that the series are stationery at first difference. So the relation between the Forex markets and the stock markets exists and the need to study the impact becomes necessary mainly for the investors, policy makers and researchers. Findings of the study have some important policy implications. It is evident that exchange rate incorporates some significant data in forecasting stock prices and its performance.

REFERENCES

1. Agarwal, D. G., Srivastav, A. K., & Srivastava, A. (2010). A Study of Exchange Rates Movement and Stock Market Volatility. *International Journal of Business and Management*, 5(12).
2. Ajayi, R. A., Friedman, J., & Mehdian, S. M. (1998). On the relationship between stock returns and exchange rates: Tests of granger causality. *Global Finance Journal*, 9(2), 241-251.
3. Dash, Mihir and Madhava, Akshay, A Study on the Impact of Currency Fluctuation on the Indian IT Sector (April 15, 2008).
4. Di Iorio, A., Faff R., and H. Sander (2006). An Investigation of the Interest Rate Risk and the Exchange Rate Risk of the European Financial Sector: Euro Zone versus Non-euro Zone Countries. Mimeo.
5. Fama, E. F. (1970). EFFICIENT CAPITAL MARKETS: A REVIEW OF THEORY AND EMPIRICAL WORK*. *The Journal of Finance*, 25(2), 383-417.
6. HUSSAIN, M., & BASHIR, U. (2013). Dynamic Linkages of Exchange Rate and Stock Return Volatility Evidence from Pakistan, India and China (PIC). *International Review of Management and Business Research*, 2(2), 345-354.
7. Jim Mueller, How Interest Rates Affect the Stock Market, Biography,
8. Koutmos, G., 1998. Asymmetries in the conditional mean and the conditional variance: Evidence from nine stock markets, *Journal of Economics and Business* 50, 277-90.
9. Koutmos, G., 1999. Asymmetric price and volatility adjustments in emerging Asian

stock markets, *Journal of Business, Finance and Accounting* 26 (1&2), 83-101

10. Phylaktis, K., & Ravazzolo, F. (2005). Stock Prices and Exchange Rate Dynamics. *Journal of International Money and Finance*, 24(7).
11. TABAK, B. M. (2006). The dynamic relationship between stock prices and exchange rates: evidence for Brazil. *International Journal of Theoretical and Applied Finance*, 09(08), 1377-1396. Doi: Doi:10.1142/S0219024906003974

Websites:

1. www.nseindia.com
2. www.moneycontrol.com
3. www.RBI.org.in
4. www.investopedia.com

QUALITATIVE CHARACTERISTICS OF FINANCIAL INFORMATION BEFORE AND AFTER IMPLEMENTATION OF XBRL

S. Raghavendra Raju*
Dr. B. Mahadevappa**

Abstract:

XBRL- Extensible Business Reporting Language as a tool for financial reporting is revolutionizing business world for meeting the information needs of stakeholders. XBRL increases transparency, accuracy and efficiency in financial reporting. The objective of the study is to study impact of XBRL on financial reporting. The qualitative characteristics of financial reporting are taken as dependent variables. They include understandability, availability, reliability, comparability and timeliness of financial information. Sample for the study include companies listed in recognized stock exchanges in India, which have been filing their annual statements to the Ministry of Corporate Affairs through XBRL. Primary data are collected from companies, about effectiveness of XBRL. Secondary data are collected from the Ministry of Corporate Affairs. The hypothesis tested in this study include XBRL has a positive impact on financial reporting in increasing availability, reliability, and comparability of financial information. Content analysis method is adopted for the study. Descriptive statistics and ANOVA is used for testing the hypothesis formulated for the study. The findings of the study would help companies to use XBRL for online financial reporting and also for different stakeholders to obtain financial information on real time basis.

Key Words: XBRL, Financial Reporting

1. Introduction

XBRL is a language for the electronic communication of business and financial data which is revolutionizing business reporting around the world. XBRL was conceived in 1998 by a CPA named Charles Hoffman based on Extensible Mark up language (XML). Later in that year, the AICPA High Tech Task force stepped in to propose creating a prototype set of financial statements using XML. In 1999, twelve companies including Microsoft Corporation, Free EDGAR.com and the big 5 accounting firms joined the effort to set up XBRL steering committee. The potential that XBRL offers quickly gained attention from regulatory bodies and businesses worldwide. In 2001, the first of the three international conferences on this took place in the UK, US, and Australia. In 2003, China became the first country to launch an XBRL voluntary filing program in their stock exchanges and made the

filing mandatory in the following year. As of 2008, Stock Exchanges in Japan, Singapore, South Korea and the Netherlands have also made XBRL reporting a requirement. The global XBRL movement has ushered in a new age of financial reporting. XBRL often referred to as interactive data gives the financial community a standard based method to prepare, publish, exchange, search and analyse financial statements across all software formats and technologies. In India Reserve Bank of India capital adequacy reporting by banks as per Basel II norms in XBRL. The Ministry of Corporate affairs has taken a big leap forward by making mandatory for certain class of companies in XBRL format. From 1st April 2011 Ministry of corporate affairs has mandated e-filing of annual reports for certain specified class of companies in XBRL format. From 1st April 2012, Companies such as Banking, NBFC, Insurance and Power sector companies are required to file their annual

reports in XBRL format. SEBI has an under development project – “Super-D” for XBRL filing by all Listed Companies and Mutual Funds in India. The Central Electricity Regulatory Commission (CERC) is also developing an XBRL based Regulatory Information Management System (RIMS) for power companies.

XBRL is here to stay which would revolutionize the way financial reporting is being reported. Former SEC Chairman Christopher Cox, believes XBRL will reduce reporting costs, increase transparency, improve supply of financial information and make the capital markets stronger.

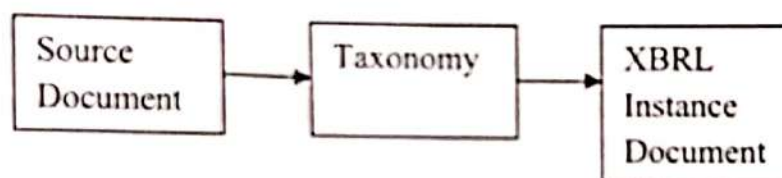
XBRL means Extensible Business Reporting Language. It is a language for transmitting information. It is a language for the electronic communication of business and financial data.

XBRL is an internet based document language that has been adapted for business and financial reporting. XBRL has been compared to bar-coding technology or the ISBN (International standard Book Number) number for books.

XBRL is defined as “a standard-based method with which users can prepare, publish (in

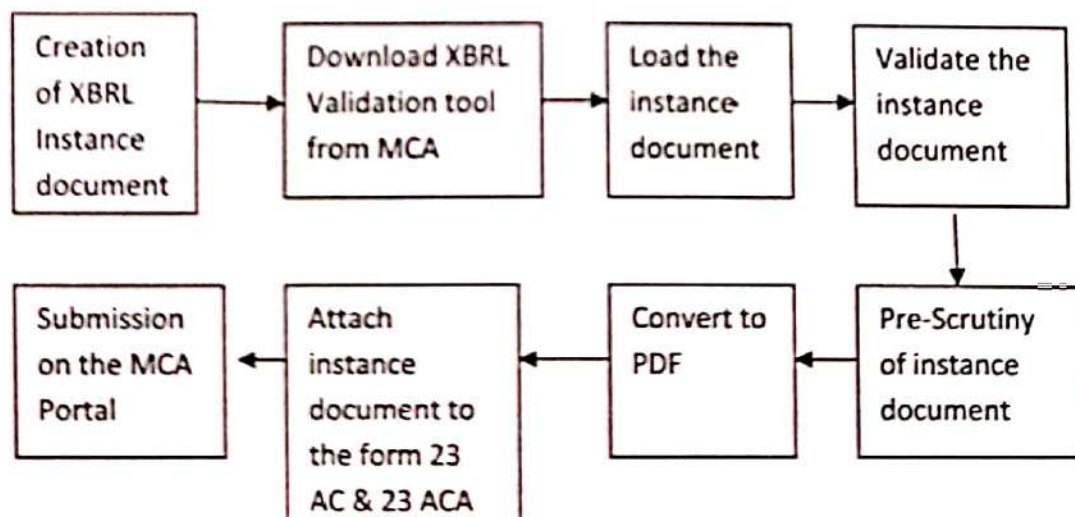
a variety of formats), exchange and analyze financial statements and the information they contain.”

2. Working of XBRL



- The source document is the annual report of the company that is to be converted to XBRL.
- In general taxonomy means a catalogue or set of rules for classification. In XBRL, it means electronic dictionary of the reporting concepts containing computer readable definitions of business reporting.
- The process of mapping the financial data to unique element is called tagging.

XBRL filing process



Before implementation of XBRL it was a laborious process for the companies to report. The XBRL financial statements will be prepared according to the taxonomy. Then it will be converted to instance document which is electronic document in xml format. The same xml document can be submitted to different regulators which will avoid the unnecessary preparation of the financial statements and report to different regulatory authorities.

XBRL helps in more timely reporting, reduction in the preparation time, quicker decision making. For instance companies which was taking 10-12 days to file in the MCA Portal now can file within minutes.

With the full adoption of XBRL, companies can automate data collection. A company finance division, for example could quickly and reliably generate internal management reports, financial statement for publication, tax and other regulatory filings, as well as credit reports for lenders.

3. Review of Literature

Virendra K Vasal and Rajendra P Srivastava (2002) studied about how XBRL can be useful for India. The objective of the study was to investigate some of the major issues in delivery of business information through the web using the 'digital' language of business called the Extensible Business Reporting Language. The findings of the study are as a technology, XBRL was attempting to provide language (digital) to the (electronic) accounting statements so that they are able to talk. XBRL shall enable financial reports to converse across all software and technologies.

Rashmi Malhotra(2004)- points out that XBRL was a frame work based on XML that would be freely licensed and facilitate the automatic exchange and reliable financial information among various software applications in the world. The purpose of the

study was conducted to explore the use of XBRL as a new common language for financial reporting electronically compared to other formats such as HTML, Web based sites, the SEC's Edgar system and Email. The study also told that 66% of companies surveyed by Association for investment management and research have a website and that 76% of those companies provide financial information on their website. The AIMR study showed that analysts preferred to use web sites to obtain information even though other sources exist. The Study found that by using XBRL a company will find it less costly to prepare and distribute its financial statements while improving access to its information. The paper also tells that in future XBRL will incorporate all accounting literature and research materials to make information easier to use and available to various users of information.

Jap Efendi (2010)-The authors had made an empirical analysis with two objectives in purview that is one provide an overview of the benefits and global development of XBRL and the other to evaluate the extent of XBRL adoption following the implementation of the voluntary filing program. SEC established voluntary filing program for XBRL reporting in March 2005. 82 companies which have filed by the voluntary filing program through EDGAR were selected it is found that number of voluntary adopters was increasing. The voluntary adoption rate is slightly above 2% of approximately 4500 companies listed in NYSE and NASDAQ. The findings of the study was that the unexpected decrease in reporting lines may be explained by companies increasing familiarity with XBRL and related efficiencies in XBRL reporting. The study also reflects the gap for further research XBRL is expected to have a positive effect on accounting and financial reporting worldwide. Particularly used in conjunction with IFRS.

Jap Efendi, Jing Dong Park and Chandra Subramaniam(2009)- The authors investigated with three objectives in sight firstly if XBRL reporting format has information content beyond the SEC quarterly and annual reports submitted to the legacy EDGAR system which uses HTML or ASCII format, Secondly whether the extent of investor response can be explained by characteristic of the reports and the firm information environment, Thirdly to examine the magnitude and the relative magnitude of information content in these XBRL filings. For this to achieve a sample of 342 observations from the SEC XBRL voluntary filing program in 2005 to June 2008 Patel's Procedure (1976) and Regression analysis was used as the statistical tool. This was the first empirical study of xbrl from the perspective of capital market research. The main limitation was on the nature of the data. The major contribution of the study is that incremental information content in XBRL surpasses that of EDGAR filings especially in the later years.

Chunhui Liu, Tawei Wang, Lee J. Yao(2011)- Here the authors focused on the impact of the XBRL mandate on the quantity and quality of the financial information environment, as reflected in analyst forecast behavior. It had been conducted with three reasons in perspective financial analysts are important and influential users of financial reports (Mikhail et al. 1999; Yu 2010) and play important roles as information intermediaries and economic agents whose actions affect security pricing (Rock et al. 2001). Second a key objective of the SEC's program is to develop an ecosystem that supports the production, collection, and distribution of accurate data to information consumers (Cox 2008). Third, implications from research on the value realization from XBRL adoption have immediate benefits for regulators, filers, information consumers, accountants and other stakeholders. A sample of 1430 firms over a

period of 2005-2010 which is listed in the U.S were selected. For analyzing the data Descriptive statistics and Pearson's correlation were used. The major findings of the study are firstly quality and reliability of information in the XBRL format are expected to be better after the transition period, secondly the usefulness of XBRL formatted information needs to be improved thirdly effective promotion and the curriculum design will definitely help users understand XBRL.

4. Need for the study

XBRL is here to stay. The need of XBRL is felt in almost in all the domains, with the paper based format of financial reporting taking more time to report to the regulators and the too much forms to be entered and also it was difficult to understand and to make interpretation of that, so there felt a need to have the electronic system of financial reporting which gave birth to XBRL. The companies felt difficult to understand the traditional formats which were PDF or HTML based but XBRL is based on the XML languages where we can report the same format to multiple regulators.

5. Objectives of the study

To study the qualitative characteristics of financial information before and after implementation of XBRL in India.

6. Hypothesis

H0-There exists no significant difference in understandability, comparability, reliability, and availability of financial information before and after implementation of XBRL in India

H1-There exists significant difference in understandability, comparability, reliability, and availability in financial information before and after implementation of XBRL in India.

7. Methodology

a) Sample for the study: Three companies have been taken for the study. The companies selected for the study

1. Columbia Asia Hospitals Private Limited
2. Denso Kirloskar Industries Private Limited
3. Samhrutha Habitat Infrastructure Private Limited

b) Period of the study: Two years have been taken for the study. Data of 2009-10 were related before implementation of XBRL. These data were collected from the annual reports. Data of 2010-11 were collected from the XBRL Filings of sample companies to the Ministry of Corporate Affairs, Government of India.

c) Research Instrument: A research instrument was constructed consists of fifteen questions stratified into four qualitative characteristics of financial reporting. They include understandability, comparability, reliability and availability. These variables are taken for the comparison of XBRL before and after implementation. Five point Scale has been used for the study. 1-Strongly Disagree, 2-Disagree, 3-Neither Agree or Disagree, 4-Agree, 5-Strongly Agree.

d) Data Collection and Analysis: Content analysis method was used to collect the data. Descriptive statistics and analysis of variance (ANOVA) was used for data analysis using SPSS.

8. Results and Discussion

The primary objective of financial reporting is to provide high quality financial reporting information concerning economic entities, primarily financial in nature useful for economic decision making. Providing high

quality financial reporting information is important because it will positively influence capital providers and other stake holders in making investment and credit decisions.

To assess the financial reporting, the qualitative characteristics of financial reporting has to be studied namely Understandability, Comparability, Reliability, Availability, Relevance, Timeliness, Verifiability and Faithful Representation. This section presents the results of XBRL before and after implementation of three companies. The results have been done taking only four qualitative characteristics of financial information that is Understandability, Comparability, Reliability, Availability. The disclosure shows that mean score is more than 1.00 in all the qualitative characteristics of before and after implementation that is Before Understandability-2.5, Comparability-1.75, Reliability-3.17, Availability-1.00 and After Understandability 4.06, Comparability-3.75, Reliability-4.83, and availability-5.00. From this we can analyze that financial information after implementation is better.

Table 1: Table showing qualitative characteristics of financial information before and after implementation of XBRL

	Qualitative Characteristics	XBRL			
		Before Implementat ion (Manual)		After implementation (XBRL)	
		Mean	S.D	Mean	S.D
1	Understandability	2.5	0.11	4.06	0.70
	1.1. The information presented in the annual report is well organized	2.67	0.57	5.00	0.00
	1.2. The notes to the Balance sheet and income statement are clear and precise	3.00	0.00	4.00	1.00
	1.3 Narrative explanations helps to increase the understandability of information	3.67	0.57	4.00	1.00
	1.4The presence of graphs and tables will make the information clear	2.00	0.00	4.33	0.57
	1.5 Use of glossary is necessary to understand technical words	1.00	0.00	3.00	1.00
2	Comparability	1.75	0.00	3.75	0.00
	2.1Comparison is easier between pre and post implementation of XBRL	1.00	0.00	3.00	0.00
	2.2Uniform accounting policies and procedures are followed	4.00	0.00	5.00	0.00
	2.3 Inter firm Comparison is possible between entities	1.00	0.00	5.00	0.00
	2.4In making companies performance ratio and index numbers are effectively used.	1.00	0.00	2.00	0.00

3	Reliability	3.17	1.84	4.83	0.33
	3.1 Auditor's report is qualified	5.00	0.00	5.00	0.00
	3.2 Neutrality is followed in presenting information	4.33	0.57	5.00	0.00
	3.3 Corporate Governance information is reported in annual report.	2.33	0.57	4.33	0.57
	3.4 Taxonomies are followed in preparation of financial statements.	1.00	0.00	5.00	0.00
4	Availability	1.00	0.00	5.00	0.00
	4.1 Industry Specific taxonomies are available	1.00	0.00	5.00	0.00
	4.2 With industry specific taxonomies, the preparation of financial statements are easier.	1.00	0.00	5.00	0.00

Testing of Hypothesis

One way ANOVA was used to test whether there is a significant difference in understandability, comparability, reliability and availability in XBRL before and after implementation of XBRL

H0- There exists no significant difference in understandability, comparability, reliability, and availability in financial reporting Before and After implementation of XBRL

H1- There exists significant difference in understandability, comparability, reliability, and availability in financial reporting Before and After implementation of XBRL

Table 2: ANOVA Table of Financial Reporting Before and After implementation of XBRL

	Sum of Squares	df	Mean Square	F	P-value
Between Groups	31.335	1	31.335	21.152	.000*
Within Groups	41.479	28	1.481		
Total	72.814	29			

*p-value is significant at 0.01 level

Only four qualitative characteristics have been taken for the study, the results of which are as follows:

Understandability: It refers to when the quality of information that enables users to comprehend the meaning. As we have seen from Table 1 Before implementation of XBRL the mean score is 2.5 and After implementation it is 4.06. This indicates that understanding of reports after implementation is better. Out of the five points in understandability the information presented in the annual report is well organized is having a higher mean value. This means that stakeholders are in a position to understand the XBRL financial statements in much better way.

Comparability: It is the quality of information that enables users to identify similarities in and differences between two sets of economic phenomena. From Table 1 we can interpret that the mean score before implementation of XBRL is 1.75 and after implementation it is 3.75. Comparison is easier across entities and between entities because XBRL financial statements are prepared according to Commercial and industrial taxonomy. The C & I taxonomy is based on Indian Accounting

standards and Companies Act.

Reliability: It is the degree to which the same scores can be repeatedly produced overtime. Reliability is therefore about consistency. From Table 1 we can say that the mean score before implementation of XBRL is 3.17 and after implementation it is 4.83. The main reason for the higher mean value after implementation of XBRL is that XBRL financial statements are based on the taxonomy which is of a standard nature to be followed by all the industries.

Availability: It is the quality of information that enables users that necessary information is readily available in the preparation of financial statements. From Table 1 we can say that the mean score before implementation of XBRL is 1.00 and after implementation it is 5.00. The reason for this is that Industry specific taxonomies are readily available and it is easier to prepare the financial statements with the industry specific taxonomies. The C & I taxonomy was released in 2011. Now the Banking Taxonomy and Power sector taxonomy has been released.

The results of ANOVA is given in the above Table 2. The ANOVA result rejects the null

hypothesis and accepts the research hypothesis as the p-value associated with the mean difference between before and after implementation of the XBRL is <0.01 . The results shows that there is significant difference before and after implementation of XBRL. The F-ratio is 21.152 this indicates that there is more in understandability, comparability, Reliability, and Availability after implementation of XBRL.

9. Limitations of the study

- a) The Study concentrated only on the qualitative characteristics that is Understandability, Comparability, Reliability and Availability.
- b) Only Three companies have been taken for the study.

10. Conclusion

As the Regulators and other stake holders are interested in the financial data, XBRL is a boon where information for financial reporting is very quick. From this study it is found that after implementation of XBRL that Understandability, Comparability, Reliability and Availability has been more in the financial reporting. It is also found that with XBRL comparison between entities was easy, also the industry specific taxonomies is easily understood where by companies can save the time in filing the reports.

11. Suggestions

From this study we can suggest further about XBRL from the practice point of view and from the research point of view.

From the practice point of view the study can be done from the various stake holders point of view. The stake holders include Regulator's, Preparer's and User's. As Regulator's are

interested on the compliance part a further study can focus on that. From the preparer's and user's point of view further study must be done on the other qualitative characteristics like Relevance, Timeliness, Verifiability and Faithful Representation.

From the Research point of view a larger sample of companies can be a part of the study.

References

Journals

1. Dugar C Prakash., 2010. "Financial Reporting, XBRL Way", The Chartered Accountant, p.p 589-593
2. Efendi Jap and Smith Murphy.,2010. "Longitudinal Analysis of voluntary adoption of XBRL on Financial Reporting", Working paper, Department of Accounting, University of Texas
3. Elizabeth Blankespoor, Brian.P.Miller & Hal.D.White.,2012 "Initial Evidence on the Market Impact of the XBRL Mandate"
4. Garg Naveen., 2010."XBRL, The new era of Business Reporting", The Chartered Accountant, p.p 601-604.
5. Jap Efendi.,2010."Longitudinal analysis of voluntary adoption of XBRL for financial reporting"
6. Jap Effendi, Jing Dong Park and Chandra Subramanian .,2010." Do XBRL reports have incremental information content-An Empirical Analysis"
7. Joung.W. Kim, Jee-Hae-Lim and Won Gyun Ho.,2011." The Effect of Mandatory XBRL Reporting across the financial information environment: Evidence in the First Wave of Mandated US Fliers"

8. Malohtra Rashmi and Garrit Francis.,2004."Extensible Business Reporting Language-The future of E-Commerce Driven Accounting", Working Paper,Saint Joseph's University
9. Richards Jim, Smith Barry and Saeedi Ali.,2006." An Introduction to XBRL", Working paper,Mudroch University
10. Theresa Dunne,Professor Christine Helliard,Andrew Lymer,Rania Mousa.,2009."XBRL-The views of stakeholders", The Association of Chartered Certified Accountants.
11. . Vasal K. Virendra &. Srivastava Rajendra .,2002." extensible Business Reporting Language (XBRL) –The Digital Language of Business: An Indian Perspective".

Websites

www.xbrl.org
www.mca.gov.in
www.icaai.org
www.icwai.org
www.xbrlplanet.org
www.caclubindia.com

Appendix

Questionnaire

1. Understandability

- 1.1 The information presented in the annual report is well organised
- 1.2 The notes to the Balance sheet and income statement are clear and precise
- 1.3 Narrative explanations help to increase the understandability of information
- 1.4 The presence of graphs and tables will make the information clear
- 1.5 Use of glossary is necessary to understand technical words

2. Comparability

- 2.1 Comparison is easier between pre and post implementation of XBRL
- 2.2 Uniform accounting policies and procedures are followed
- 2.3 Comparison is possible between entities
- 2.4 In making companies performance ratio and index numbers are effectively used.

3. Reliability

- 3.1 Auditor's report is qualified
- 3.2 Neutrality is followed in presenting information
- 3.3 Corporate Governance information is reported in annual report.
- 3.4 Taxonomies are followed in preparation of financial statements.

4. Availability

- 4.1 Industry Specific taxonomies are available
- 4.2 With industry specific taxonomies, the preparation of financial statements are easier

PATH ANALYSIS TO DEMONSTRATE THE RELATIONSHIP BETWEEN DIFFERENT DIMENSIONS OF REGULAR INVESTMENT AND INVESTMENT SATISFACTION USING VISUAL PLS

R. Suyam Praba*
Prof. K. Malarmathi**

Abstract :

The aim of this paper is to investigate the determinants of regular Investment pattern and its association with the satisfaction towards Investments made. Structural Equation Modeling has been utilized with information provided by a survey conducted in Coimbatore city. Results indicate that there is significant association between regular investment and its determinants - past profitable investments, financial dependency, knowledge about financial need, sole responsibility for investment and family aware of investment details. Moreover, there is a strong positive relationship between regular investment and satisfaction towards Investments. Findings provide more evidence on important determinants of Investment pattern and results of investor satisfaction.

Keywords: Investment Satisfaction, Regular Investment Pattern, Structural Equation Modeling, Financial dependency, Financial Need

1. INTRODUCTION

Structural Equation modeling (SEM) is a multiple regression model with more than one dependent variable and independent variables. SEM is fitted by ordinary least square method (OLS) or partial least square method (PLS). Structural Equation Modeling Software (Visual PLS) is similar to regression and components based structural equation modeling technique. This simultaneously models the structural paths (i.e., the theoretical relationships among latent variables and measurement paths (i.e., relationships between a latent variable and its indicators). In PLS approach the latent variables are estimated as exact linear combinations of the observed measures. The focus of PLS is on the explanation of variance expressed by the independent variable on the dependent variable. For the current research study, Visual PLS was used to reinforce the relationship between latent variables (constructs), namely (i) past profitable investment, (ii) sole responsibility for investment, (iii) financial dependency on family, (iv) family aware on investment and (v) knowledge on financial need on regular investment.

2. REVIEW OF LITERATURE

Ajzen (1975) argues that a person's intention to perform a particular behavior was influenced by two basic determinants, namely, attitudes and social influence. Tversky and Kahneman (1981), found the experimental evidence on financial decision making under uncertainty that shows the people do not behave as in traditional models because the investors do not always behave as depicted in traditional models. Fornell (1992) added that favorable word-of-mouth and repurchasing are the results of customer satisfaction. Anderson et al. (1997) pointed out that companies should consider customer satisfaction and productivity together in order to gain business growth, positive word-of-mouth and increase overall profitability and image. Anderson et al. (1994) viewed customer satisfaction as customers overall experience while buying or consuming products or services. According to Anton (1996) customer satisfaction is customer's state of mind when his/her expectations met or exceeds the perception and result in post-purchase decision of loyalty. Baker and Crompton (2000) suggested that Customer Satisfaction is a personal experience derived

R. Suyam Praba*, Research Scholar, Bharathiar School of Management and Entrepreneur Development, Bharathiar University, Coimbatore, Email ID: suyam.praba@gmail.com
Prof. K. Malarmathi**, Professor, Bharathiar School of Management and Entrepreneur Development, Bharathiar University, Coimbatore, Email ID: mathijj@yahoo.com

from differences between personal expectations and actual receives. Boshoff and Gray (2004) Stated that products and Services do not contain customer satisfaction inherently but, instead, customer satisfaction is included in perception of every customer about the product and service attributes. Alleyne and Broome (2010), in their research, stated that attitude, the reference group, the confidence, and the opportunity had a significant effect on the willingness to invest.

2.1 THE NEED FULFILLMENT MODEL OF SATISFACTION

There are two reasons which force customers to attempt to satisfy a need. The first reason is restoration which gives the customer a sense of relief. The second one is enhancement which leads to feel pleasure. Oliver (1997) divided need fulfillment attributes into three parts:

- Lower- need fulfillment attributes which are known as monovalent dissatisfiers and cause dissatisfaction when flowed.
- Higher- need fulfillment attributes which are known as nonviolent satisfiers and they will satisfy the customer when present but will not cause dissatisfaction if absent.
- Bivalent satisfiers which affect satisfaction and dissatisfaction similarly depending on their presence or absence.

2.2 THE THREE FACTOR THEORY

Matzler and Sauerwein (2002) distinguished three factors of satisfaction.

Basic factors (dis-satisfiers) are minimum requirements that lead to dissatisfaction if not fulfilled, but by fulfilling them customer satisfaction will not be created. In these kinds of factors low performance has greater effect on overall satisfaction than high performance. The relationship between factor-level performance and overall satisfaction is symmetrical.

Excitement factors (satisfiers) are factors by whose delivering the service provider could increase satisfaction but don't lead to dissatisfaction if they are not delivered

Excitement factors are not in expectation list of customers; instead they could surprise costumers and generate delight for them. The relationship between factor-level performance and overall satisfaction is symmetric.

Performance factors (hybrids) could bring about satisfaction if performance is high and dissatisfaction, if performance is low. There is a linear and symmetric relation ship between performance and overall satisfaction.

2.3 EXPECTANCY- DISCONFIRMATION THEORY

Brooks (1995) defined this theory as comparison of expectations and performance and using a better- than, worse- than heuristic. Positive disconfirmation will occur if the product and service is better than expected and negative disconfirmation will happen if the product and service is worse than expected. The more the positive disconfirmation, the more the customer satisfaction (Liljander and Strandvik,1997).

Two concepts are involved in disconfirmation theory: assimilation effects and contrast effects. According to assimilation theory a consumer's perception about the product's performance will be drawn toward his/ her expectations and customer satisfaction will be determined by customer's level of expectation. However, under contrast effect, there would be exaggeration in perceiving the results. It means that a favorable result will be perceived as more favorable one and an unfavorable result will be perceived as less favorable. Positive disconfirmation will cause customer satisfaction and future purchase decisions. But negative disconfirmation will lead to searching for another product to satisfy our need.

3. OBJECTIVES OF THE STUDY

1. To evaluate the various dimensions of factors influencing Investment
2. To study the relationship between the factors influencing Investment decisions and regular Investment.

3. To study the influence of Investment decisions on the level of Satisfaction towards Investment.
4. To develop Path Model for the determinants of Investment of Investors' and their Satisfaction towards Investment

4. RESEARCH METHODOLOGY

This study is descriptive in nature because this study describes the characteristics of Investors. The Data collection is done mainly through primary sources and also secondary sources such as journal, magazines, text books and website. The primary data was collected through structured questionnaire method. The field work of the study was conducted in Coimbatore city and the data collection process took place during the period December 2012 to May 2013. Multistage sampling is used for this research. In the first stage, Coimbatore city is selected for the study. In the second stage salaried class individuals were considered. In the third stage, Services sector was selected and in the fourth stage Bank, an NBFC, Mutual Fund, Insurance companies, IT, ITES Company, or Educational Institutions were selected from the Service Industry. Among the

Banks, NBFC & Insurance companies, private players were alone considered, among educational institutions, B-Schools teaching faculties were considered, IT, ITES, Mutual Fund companies are selected based on the location ease and the approval from their administration to conduct such market survey. Thus respondents were selected in a multistage random sampling method. In this study, 405 samples were considered based on the Krejcie & Morgan (1970) sampling table.

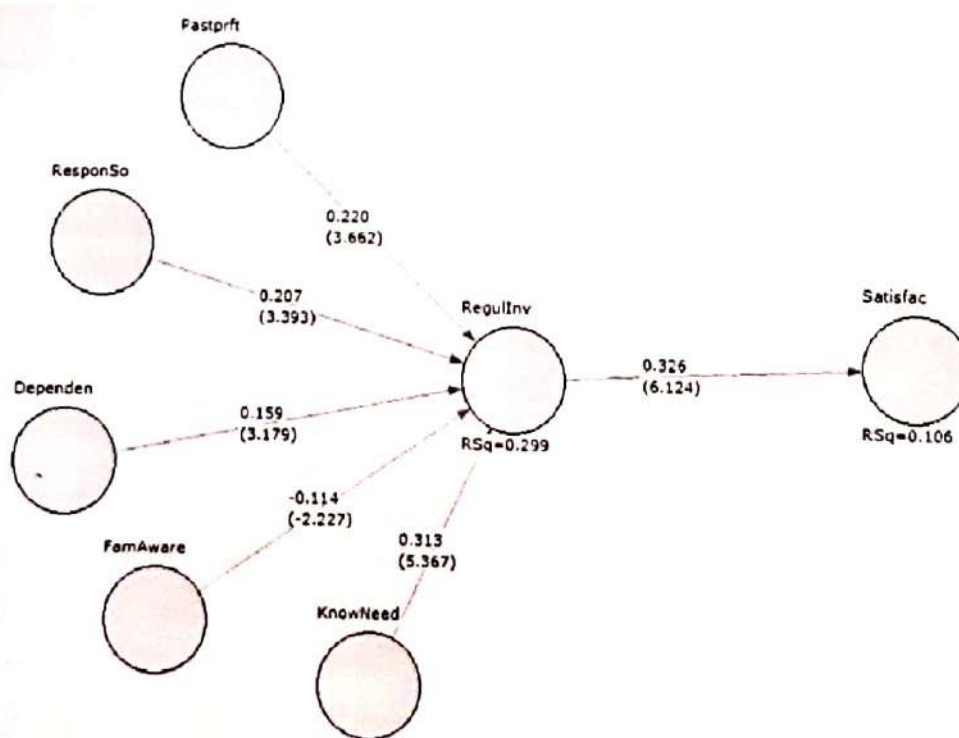
5. PLS PATH MODELLING

The PLS approach to structural equation modeling (Wold 1966, 1982, Fornell & Cha 1994) studies a system of linear relationships between latent variables by solving blocks (combinations of theoretical constructs and measurements) one at a time.

6. ANALYSIS AND INTERPRETATION

H0: There is no significant relationship between the various dimensions of factors influencing Investment and regular Investment.


Ha: There is significant relationship between the various dimensions of factors influencing Investment and regular Investment.



From the above model, it is evident that Past profitable investment, Sole responsibility for investment, Financial Dependency on family and Knowledge on financial need on regular Investment are significantly related with regular investment in positive direction, except for family members aware on Investment, since all T values are greater than table value of T at 5% level of significance (2.00). Similarly regular investment has a positive significant relationship with the satisfaction. From the above analysis, past profitable investment has

an influence of 0.220 levels on regular investment (22% increases in regular investment). Similarly Sole responsibility for investment has the influence of 0.207, Financial Dependency on family 0.159, Knowledge on financial need 0.313 levels. From all these independent variable, Knowledge on financial need shows more influence on regular investment by use of interdependent OLS simple and/or multiple regressions.

Table regarding the measurement mode-Bootstrap showing the T statistics

Correlation of Latent Variables							
	Past profitable Investment	Sole Responsibility in Investment Decision Making	Dependent on family for Financial Stability	Family Aware of Investment details	Regular Investment pattern	Satisfaction towards Investment	Knowledge about Investment Need
Past profitable Investment	1.000						
Sole Responsibility in Investment Decision Making	0.387	1.000					
Dependent on family for Financial Stability	0.086	-0.112	1.000				
Family Aware of Investment details	0.265	0.197	0.279	1.000			
Regular Investment pattern	0.402	0.355	0.132	0.148	1.000		
Satisfaction towards Investment	0.385	0.154	0.193	0.201	0.326	1.000	
Knowledge about Investment Need	0.378	0.328	0.030	0.379	0.426	0.242	1.000

Structural Model—Boot Strap					
		Entire Sample estimate	Mean of Sub samples	Standard error	T-Statistic
	Pastprft->RegulInv	0.2200	0.2272	0.0601	3.6623
	ResponSo->RegulInv	0.2070	0.2009	0.0610	3.3934
	Dependen->RegulInv	0.1590	0.1586	0.0500	3.1790
	FamAware->RegulInv	-0.1140	-0.1141	0.0512	-2.2268
	KnowNeed->RegulInv	0.3130	0.3150	0.0583	5.3672
	RegulInv->Satisfac	0.3260	0.3284	0.0532	6.1238

Source: Computed from Primary data

Overall contribution of all independent variables of regular investment is 29.9% ($R^2 = 0.299$). The rest of independent variables influencing on regular investment behaviour (almost 70%) may have come from various unknown factors which are not studied in this study. Regular Investment influence over satisfaction on Investment is 0.326. The contribution in percentage in the satisfaction level is 10.6 ($R^2 = 0.106$).

The other factors like investment decision making process influencing the level of satisfaction on Investment is also studied using Chi Square test.

Table regarding Chi Square test of Investment Decision making process and Investment Satisfaction level.

		Investment decision making process			
Satisfaction on Investment		Encouraging factor for Investment	Actions before Investment	Household investment decision-maker	Liquid Investment for Contingency management
I depend on my spouse/children for my financial stability	Sig Value	0.484	0.061	0.489	0.778
	Chi Sq value	4.471	10.550	4.435	1.770
I am satisfied with my current financial situation	Sig Value	0.479	0.026*	0.755	0.005*
	Chi Sq value	4.507	12.747	2.642	14.745
I am fully responsible for the results of my investment decisions	Sig Value	0.003*	0.002*	0.004*	0.452
	Chi Sq value	18.296	19.361	17.073	3.673
I have a clear idea about my financial needs during retirement	Sig Value	0.162	0.004*	0.009*	0.083
	Chi Sq value	7.896	17.257	15.239	8.260
My spouse/Children are aware of the details my investments	Sig Value	0.484	0.235	0.000*	0.587
	Chi Sq value	4.471	6.817	22.750	2.827
My past profitable investments were mainly due to my specific investment skills	Sig Value	0.191	0.058	0.536	0.046*
	Chi Sq value	7.416	10.697	4.095	9.690

Source: Computed from Primary data

* denotes significant relationship between two variables

The Chi Square test results are depicted in the above table. Since the p value is lesser than 0.05 (5% level of significance), it is inferred that there is significant relationship between the following factors:

- Past profitable investments and Liquid Investment for Contingency management.
- Sole responsibility on the investment decision results and (i) the factors

encouraging the investment, (ii) actions before investment, (iii) household investment decision-maker.

- Current financial situation and (i) actions before investment, (ii) Liquid Investment for Contingency management, (iii) Household investment decision-maker
- Family members' awareness on the investment and Household investment decision-maker.
- Financial needs during retirement and (i) Household investment decision-maker, (ii) actions before investment.

6. CONCLUSION AND IMPLICATION

It can be generalized that the attitude of investors is rational. The Knowledge of financial need significantly effect on the investor regular investment pattern. Financial dependency on the family members also determines the regular investment pattern. It is inferred that individuals who take sole responsibility on their investment decisions plan and execute for their investment regularly. It implies that the fundamental analysis was still considered to be the key success by the investors before they made a decision to invest. Besides that, the model clearly depicts the facts that regular investments have a positive association on the satisfaction of investment decisions. Hence there has to be efforts taken by financial institutions to create and develop attractive investment schemes. Continual investors education programs through various advertisements in different media can be conducted by financial institutions which develop regular investment pattern and for wise investment decisions.

7. SUGGESTIONS

This study aims to determine the factors influencing the satisfaction level towards investment. The study on regular Investment pattern, financial dependency, awareness on financial need, self investment decision making, memories about past investment gives the insight on the customers' intention, attitude, expectations, need for Investment. In depth study on various other factors influencing the investment decisions and also their satisfaction level towards Investment can be probed in detail as a scope for future study. Some of such factors could be demographic factors, Social status; economic factors be considered for future study. The target respondents could also be at national level, which could be from rural and urban areas, to understand the Investment decisions.

8. LIMITATIONS

- Samples of the study are salaried educated Investors in Coimbatore city and it may not represent the national market.
- This study has not been conducted for a longer time horizon covering market ups and downs. The state of market has a significant influence on the buying patterns and preferences of Investors. The study was conducted during a particular period of time and hence it will not be applicable for all periods.
- The study being based on a survey of Investors, it includes all limitations inherent in the questionnaire form of research.

9. REFERENCES

- Ajzen, Icek, (1975), 'The Theory of Planned Behavior', *Journal of Organizational Behavior and Human Decision Processes* 50, pp. 179-211.
- Akhtar, ME, (2011), 'Determinants of Short Term Investment Decision Making', *Journal of Actual Problem in Economics*, no 11.
- Albadvi, A, Chaharsoghi, SK, Esfahanipour, A, (2006), 'Decision Making in Stock Trading: An Application of Prometiiee', *European Journal of Operational Research* 177 (2007), pp. 637-683.
- Anderson, E.W., Fornell, C and Lehmann, D. R. (1994), "Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing*", 58, 53-66.
- Anton, J. (1996), "Customer Relationship Management: Making Hard Decisions With Soft Numbers", Upper Saddle River, New Jersey: Prentice Hall, Inc.
- Baker, D. A and Crompton, J. L. (2000), "Quality Satisfaction and Behavioral Intentions. *Annals Of Tourism Research*", 27 (3), 785-804
- Boshoff, C. and Gray, B (2004), "The Relationships between Service Quality, Customer Satisfaction and Buying Intentions In The Private Hospital Industry", *South African Journal of Business Management*, 35(4), 27-37.
- Brookes, D. and Stodin, N (1995), "The New Service Relationship", *Canadian Business Review*.
- Dr. M. Muniraju, Joychen Manuel, (2013), "A Study on Investor's Perception towards Various Avenues of Investment", *Intercontinental Journal of Finance Resource Research Review*, Volume 1, Issue 9, pp 14-22
- Eipstein, MJ and Pava, M, (1994), "Individual Investor's Perceptions on the Summary Annual Report: A Survey Approach", *Journal of Applied Business Research*, vol. 10, number 3, pp. 60-67.
- Fornell, C, (1992), "A National Customer Satisfaction Barometer: The Swedish Experience", *Journal of Marketing*, 56(1), 1-21.
- Kadariya, S, (2012), "Factors Affecting Investor Decision Making: A Case of Nepalese Capital Market", *Journal of Research in Economics and International Finance (JREIF)*, vol. 1 (1), pp. 16-30.
- Liljander, V and Strandvik, T., (1997), "Emotions in Service Satisfaction. *International Journal of Service Industry Management*", 8 (2), 148-69.
- Mandeep Kaur and Tina Vohra, (2012), "Understanding Individual Investor's Behavior: A Review of Empirical Evidences" *Pacific Business Review International*, Vol.2, Issue 6.
- Mittal M and Vyas R K (2007), "Demographics and Investment Choice among Indian Investors", *The IUP Journal of Behavioral Finance*, Vol. 4, No. 4, pp. 51-65.
- Oliver, R. L (1997), "Satisfaction A Behavioral Perspective of the Consumer", New York:Mcgraw-Hill.
- Tversky, A and Kahneman, D (1981), "The Framing of Decisions and the Psychology of Choice", *Science*, new series, vol 211, no. 4481, pp. 453-458.
- Tversky, A and Thaler, RH, (1990), "Anomalies: Preference Reversal", *The Journal of Economic Perspectives*, vol 4, no 2, pp. 201-211.

A STUDY ON THE INVESTORS PERCEPTION TOWARDS DERIVATIVES

Dr. P. Paramashivaiah*
Mr. Puttaswamy**

Abstract :

Since risk is inherent in financial instruments, Risk management and hedging against uncertainty became very important for individual investors and firms. Derivatives emerged as promising investment avenue to the Indian retail investors to overcome risk. The present study attempts to understand the perception of retail investors towards derivatives. In this descriptive study, 80 samples were collected through structured questionnaire on snowball sampling method. Data analysis through SPSS and statistical techniques such as percentage analysis, Chi-Square test and Kendall's tau-b were calculated to draw the inference. The major findings of the study are that investors depend on friends/peers and financial advisors for relevant information. The Preference for different derivative investment is not associated with occupation, and also found that education determines the investment selection. The study suggests financial advisors and brokers and media to disseminate timely information and create awareness. Investors are advised to carefully watch the transactions because the experience in the derivative market makes an investor to successfully manage the risk. The results confirm the findings of the early studies.

Key words: Derivatives, risk, investors, perception.

1. INTRODUCTION

Globalization and liberalization facilitated drastic increase in the international business resulting in a rapid volatility in interest rate and exchange rate. As a result, stock prices have exposed the retail investors and corporate to growing financial risk. Thus, risk management and hedging against uncertainty have become very important for individual investors and firms. The financial market is broader and includes bonds, foreign exchange, real estate, commodities, and numerous other asset classes and financial instruments. Derivatives serve as an effective tool for mitigating the risk due to uncertainty and volatility in underlying asset. They offer various types of risk protection and allow innovative investment strategies. India has emerged as one of the most successful developing economy in terms of a vibrant market for derivatives. The launch of equity derivatives market has been extremely positive by global standards. Being an important class of financial instruments, Derivatives are central to today's financial and trade markets. The derivative market has grown impressively by

24 percent per year in the last decade and has seen the highest growth of all financial market segments in recent years. It has become a major central contributor to the stability of the financial system and an important factor in the functioning of the real economy. Derivative market is predominantly a professional wholesale market with banks, investment firms, insurance companies, and corporate as its main participants. The predominant growth of derivative market caused gain to some and pain to others due to adverse result of investing in it. Thus, it is one of the important and potential areas for research in the field of investment and risk management.

1.1 Derivatives Defined

Derivatives can be defined as "a security or contract designed in such a way that its price is derived from the price of an underlying asset". It can also be defined as financial instruments whose returns are derived from those of other financial instruments. Their performance depends on the performance of other instruments.

Dr. P. Paramashivaiah*, Professor & Dean, Department of Studies & Research in Commerce, Tumkur University, Tumkur, E-mail:- paramashivaiah@gmail.com

Mr. Puttaswamy**, Assistant professor & Research Scholar, Govt. First Grade College, Hirisave, Hassan District, E-mail: swamisure@gmail.com

These do not have independent existence without underlying product or commodity. Derivatives do not have their own value and rather they derive their value from some underlying product or commodity.

1.2 Importance of Derivatives:

Firstly, The main function of Derivatives are of Risk Management which involves designing of financial contracts to produce gains or adjusting the losses or gains that arise due to movement in the financial prices. Secondly, it facilitates enterprises by reducing the risks and increasing the profits. Third, Derivatives are very important as they provide price information that help producers, consumers, and investors in decision making. Finally, the transactional efficiency of business can be improved as Derivatives increases market liquidity, and increased market liquidity reduces transactional costs.

1.3 Risks associated with Derivatives

There are four kinds of risks associated with derivatives. They are Credit risk, Market Risk, Operational Risk, and Legal Risk. Credit risk is the possibility of loss that arises on account of a counter party's failure to meet its financial obligation. Market Risk arises due to adverse movements of price of commodity or a financial asset. Operational Risks may arise due to human error, system failure, inadequate control of frauds etc. finally; Legal Risks may take form of an action by a court or by a regulatory body, such as SEBI, results in invalidation of a financial contract.

2. REVIEW OF LITERATURE

Many studies worldwide reflect the inherent attributes of derivatives and attitude of investors and firms in general.

P. M. Deleep Kumar and G. Raju (2001) showed that more than half of individual shareowners in India belonged to just five cities. The distribution of share ownership by States and Union Territories show that just five States accounted for 74.7 per cent of the country's share ownership population and 71.7 per cent of the aggregate value of the shareholdings of individuals in India. They

demonstrated that among the five States, Maharashtra tops the list with Gujarat as a distant second followed by West Bengal, Delhi and Tamil Nadu. The study also argued that introduction of derivatives is the first step to hedge the risk of unfavorable movement in the market. They opine that this would lower transaction cost and provide depth and liquidity to the market.

Peter Carr and Dilip Mandan (2001) formally considered derivatives securities as potential investment vehicles. They viewed derivatives as tactical vehicles for efficiently re-allocating funds across broad asset classes, such as cash, fixed income, equity and alternative investments. They studied that under reasonable market conditions, derivatives comprise an important, interesting and separate class, imperfectly correlated with other broad asset classes. They concluded that if derivatives are not held in our economy then the investors confine their holdings to the bond and the stock and the optimal derivatives position would be zero.

Warren Buffet (2002) argued that derivatives call for money to change hands at some future time, with the amount to be determined by one or more reference items, such as interest rates, stock prices, or currency values. He argues that large amount of risk, particularly credit risk, become concentrated in the hands of relatively few derivative dealers, who in addition trade extensively with one other. He said that the troubles of one could quickly infect the others. He also said that the derivatives instruments would almost certainly multiply in variety and number until some event makes their toxicity clear. He sarcastically opines that derivatives are financial weapons of mass destruction, carrying dangers that, while now latent, are potentially lethal.

Jennifer Reynolds-Moehrle (2005) examined in their study that how market participants changed the way they process earnings information after learning of the implementation of hedging activities. For the study they used a sample of derivative user and non-user firms, this study empirically

compares earnings predictability, forecast revision behavior, and the earnings response coefficients before and after the disclosure of hedging activity. From particular study they came to know that analysts' forecast accuracy increased and that unexpected earnings are incorporated into subsequent earnings forecasts to a greater extent subsequent to disclosure of sustained hedging activity. Additionally, the findings indicated an increase in the earnings-return relation in the hedging activity period

Randall Dodd and Stephany Griffith-Jones (2006) studied that derivatives markets serve two important economic purposes: risk shifting and price discovery. Derivatives markets can serve to determine not just spot prices but also future prices. In the research, interviews with representatives from several major corporations revealed that they sometimes prefer to use options as a means to hedge. They also argued derivatives have a potential to encourage international capital inflows.

K. Ravichandran (2007) showed in their study that the younger generation investors are willing to invest in capital market instruments and that too very highly in Derivatives segment. Even though the knowledge of investors in the Derivative segment is not adequate, they tend to take decisions with the help of the brokers or through their friends and were trying to invest in this market. He also argued that majority of the investors want to invest in short-term funds instead of Long-term funds, they prefer wealth maximization instruments followed by steady growth instruments. Empirical study also shows that market risk and credit risk are the two major risks perceived by the investors, and for minimizing that risk they take the help of news paper and financial experts. He argued that Derivatives acts as a major tool for reducing the risk involved in investing in stock markets for getting the best results out of it. Further, advised the investors to be aware of the various hedging and speculation strategies, which could be used for reducing their risk. He concluded that Awareness about the various uses of derivatives

can help investors to reduce risk and increase profits, and though the stock market is subjected to high risk, the loss can be minimized to an extent by using derivatives.

Vinay Mishra and Harshita Bhatnagar (2009) documented that Derivatives are considered to be extremely versatile financial instruments, as they help to manage risks, lower funding costs, enhance yields and diversify portfolios. The contributions made by derivatives have been so great that they have been credited with having changed the face of finance in the world. Derivatives markets are an integral part of capital markets in developed as well as in emerging market economies. These instruments assist business growth by disseminating effective price signals concerning exchange rates, indices and reference rates or other assets, thereby, rendering both cash and derivatives markets more efficient.

David Nicolaus (2010) studied that retail derivatives allow retail investors to pursue sophisticated trading, investment strategies and hedging financial instruments. Retail investors' motivation for improving the after tax return of their household portfolio is a major driver of the derivatives choice of the products and that provide only little equity exposure for the investor. The derivatives form the divergent belief of retail investors about the future price level of the underlying as these can be tailored to specific demand of the investor. He argued that the potential role of search costs and financial advice on the portfolio decisions of retail investors, the flexibility of retail derivatives and low issuance costs are likely to emphasize the existing frictions in financial retail markets such as an increase of strategies and heuristics used by retail investors to cope with the complex decision situation in financial retail markets.

S. Saravanakumar, S. Gunasekaran and R. Aarthi (2011) in their study emphasize that the derivative instruments like, futures, options, swaps offer investors in the capital market to hedge against the adverse conditions in the stock market. Through the empirical results of

their study, they proved with hypothesis testing that there is no relationship between the income of the investor and terms of investment; no relationship between the occupation of the investor and investment decision. They showed, however, that there is a relationship between the age of the investors and margin funding in share trading.

Himanshu Barot & V.K. Sapovadia (2012) found in their empirical study that the investors are losing their capital as they are not only able to hedge but also due to lack of enough knowledge about derivatives products and strategy; they are just following advice by brokers, friends and relative. Study also argues that cash segment is more preferred than derivatives segment in the investors group.

Above studies are not much conclusive about the investors' sentiment with regard to investment in derivatives. This may be attributed to the vast scope of activities of the capital market instruments and much dynamism can be witnessed through the volatility. Moreover, Derivatives as a preferred segment of investment are not much popular due to varied reasons among the investors in India, particularly other than the 'five big' cities mentioned in the early studies. Hence, there is much scope for studying the behavior of investors towards Derivatives.

2.1 STATEMENT OF THE PROBLEM

Investment in financial market is generally perceived to be risky. Derivatives have emerged as promising investment avenue to the retail investors of even non-metropolitan cities to overcome risk. Derivative market present wide range of opportunities to the investors to get better return by hedging their portfolio. Many studies show that the investors' level of preference towards derivatives is considerably low. Hence, an attempt is made to study the perception of retail investors towards derivatives.

2.2 SIGNIFICANCE OF THE STUDY

Among the plethora of investment avenues available in Indian capital market, different class of investors prefers different types of

financial instruments depending on their risk tolerance level. Their investment decisions are based on various socio-economic factors as well as behavioral factors. Objectives of the saving and investment differ from individual to individual; ranging from safety of principal to capital appreciation and tax savings. To make use of the most promising investment avenue, it is necessary to educate and create awareness about derivatives even among the investors in small cities. This study is significant in terms of its educative attribute to create awareness about the various uses and strategies to reduce risk and minimize the losses.

2.3 OBJECTIVES OF THE STUDY

- To understand the investment selection criteria of investors towards derivatives.
- To examine the perception of individual investors towards derivatives.
- To examine the relationship between investment preference and demographic factors

2.4 HYPOTHESES:

H01: there is no significant relation between occupation and criteria for selecting investments.

H02: there is no association between the occupation and preferred derivative investment.

H03: there is no significant relationship between education and investment preference

2.5 RESEARCH DESIGN

Type of Research: Descriptive.

Data : Primary and Secondary

Primary Data: Structured Questionnaires

Secondary Data : Books, Journals, Papers, and Related previous studies.

Sampling Method : Non-Probability method, Snowball sampling

Sample Units : Karvy, Angel Broking, Sharekhan,

Sample Size : 80

It is justified on the ground that the number of active investors in the study area has been gradually increasing, though not in

large size.

Place of Study: Two districts-Hassan and Mysore of Karnataka. The study area is chosen conveniently as it is the place of researcher's residence.

Time : During December 2013 to August 2014.

Tools Of Analysis: Spss Verison 20

Statistical Techniques: percentage analysis and Chi-Square Test.

data so collected was coded and edited and analysed by using SPSS version 20. The data has been tested for its reliability and normality and it is found that the data fulfils the internal consistency test, Cronbach's Alpha value being 0.603 for 15 items. Respondents were analysed on various demographic basis as shown in Table 1 which is self explanatory. Age category analysis shows that the majority of the respondents are young and belong to age category below 30 years. Respondents, who are senior citizens and retired employees, are few and this shows that senior citizens are risk averse, do not engage in risky investments.

3. RESULTS AND ANALYSIS

The primary data was collected through structured, close ended questionnaires developed on the basis of literature review. The

TABLE 1: DEMOGRAPHIC PROFILE

DEMOGRAPHIC CLASSIFICATION		Count	Column N %
AGE	20-29	57	71.2%
	30-39	12	15.0%
	40 & Above	11	13.75%
	Subtotal	80	100.0%
EDUCATION	10+2	20	25.0%
	GRADUATE	24	30.0%
	P.G	14	17.5%
	PROFESSIONAL	22	27.5%
OCCUPATION	Subtotal	80	100.0%
	STUDENT	23	28.7%
	EMPLOYEE	20	25.0%
	ENTREPRENEUR	11	13.8%
	PROFESSIONAL	18	22.5%
	PENSIONER	5	6.2%
	HOUSEWIFE	3	3.8%
	Subtotal	80	100.0%
ANNUAL INCOME	UPTO 5 LAKH	22	27.5%
	5LAKH TO 10 LAKH	23	28.7%
	10LAKH TO 15 LAKH	21	26.2%
	ABOVE 15 LAKH	14	17.5%
	Subtotal	80	100.0%

Source: primary data

Table 2: Source of Information on Derivatives

	Frequency	Percent
Brokers/Financial Advisors	26	32.5
Friends/Peers	32	40.0
Advertisements	13	16.3
Banks/Investment Firms	9	11.3
Total	80	100.0

Table 2 exhibits the source of information on derivatives. The table indicates that majority (40%) respondents obtain information from friends/peers followed by brokers/financial advisors.

Table 3: Preferred Investment Avenue

	Frequency	Percent
CASH MARKET	25	31.3
FUTURE MARKET	28	35.0
OPTIONS MARKET	14	17.5
COMMODITY MARKET	13	16.3
Total	80	100.0

Table 3 indicates the preferred investment in derivative market. Majority of the respondents (35%) prefer future market, 31% prefer cash market followed by options market and commodity market.

Table 4: The Most Important Objective of Investment

	Frequency	Percent
WEALTH INCREASE	11	13.8
STEADY GROWTH	24	30.0
REGULAR INCOME	14	17.5
SAFETY OF PRINCIPAL	31	38.8
Total	80	100.0

Safety of the principal is the most important objective and criteria for investment selection. Table 4 shows that 38.8% of the respondents' objective is the safety of the principal, 30% of the respondents expect steady growth followed by regular income and wealth increase.

Table 5: The Most Considered Risk in the Derivatives

	Frequency	Percent
CREDIT RISK	26	32.5
MARKET RISK	38	47.5
TRANSACTIONAL RISK	8	10.0
LEGAL RISK	8	10.0
Total	80	100.0

Source: primary data

According to table 5, market risk is the big worry for 47.5% of the investors, while 32.5% do care much for credit risk and others consider transactional risk and legal risk.

Table 6: Basis Of Mitigating The Risk

	Frequency	Percent
BROKERS/FINANCIAL ADVISORS	25	31.3
FRIENDS/PEERS	40	50.0
MEDIA	6	7.5
BANKS/INVESTMENT FIRMS	9	11.3
Total	80	100.0

While market risk is the main threat to the investors, they resort to friend and peers for advice to mitigate the risk associated with their derivative contracts. 50% of the respondents, as shown in table 6, make arrangement to manage risk on the basis of the advice of their friends, 31.3% of the investors take the suggestions from brokers and financial advisors who are expert in the field. Others depend on banks and media.

Table 7: Main Barrier Preventing Investment in Derivatives

	Frequency	Percent
HIGH MARGIN	42	52.5
LACK OF SUFFICIENT KNOWLEDGE	33	41.3
LACK OF EXPERIENCE	5	6.3
Total	80	100.0

Table 7 indicates the important barrier that prevents the investors from investment in derivatives. Majority of the respondents (52.5%) worry that high margin is the challenge, 41.3% do not try to invest judiciously in derivatives because of lack of sufficient knowledge, while 6.3% have less experience that cause them not to adopt derivative trading.

Table 8: How Much Margin you Expect from Derivatives

	Frequency	Percent
UPOT 5000	32	40.0
5000-10000	29	36.3
10000-15000	5	6.3
15000-20000	14	17.5
Total	80	100.0

Since high margin is the main hurdle for the investors in derivative transactions, majority of them (40%) expect upto Rs. 5000 a comfortable amount which they can afford to. 36.3% expect upto Rs.10000 margin followed by 17.5% can manage upto Rs. 20000 margin.

Table 9: Perceived Growth of Derivative Market

	Frequency	Percent
GROW VERY FAST	30	37.5
GROW MODERATELY	26	32.5
GROW SLOWLY	6	7.5
NO IDEA	18	22.5
Total	80	100.0

The perception of investors towards the growth of derivative market shown in table 9 indicates that 37.5% are optimistic saying that market grows very fast, 32.5% say that it grows moderately, and remaining are pessimistic about the derivative market growth.

Table 11 :chi-square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.456 ^a	15	.044
Likelihood Ratio	23.233	15	.079
Linear-by-Linear Association	4.663	1	.031
N of Valid Cases	80		

a. 18 cells (75.0%) have expected count less than 5. The minimum expected count is .49.

Table 10: Preferred Investment in Derivatives

	Frequency	Percent
STOCK INDEX FUTURES	37	46.3
STOCK INDEX OPTIONS	22	27.5
FUTURES ON INDIVIDUAL STOCK	11	13.8
OPTIONS ON INDIVIDUAL STOCK	10	12.5
Total	80	100.0

Table 10 shows the classification of respondents on the basis of their investment preference in derivative market. It shows that 46.3% prefer to play in stock index futures, 27.5% prefer stock index options, while 13.8% prefer futures on individual stock followed by 12.5% who prefer options on individual stock.

3.1. Hypothesis testing

3.1.1 between occupation and important criteria of their investment

The first null hypothesis (H01) of the study states that there is no significant relation between occupation and criteria for investment selection. Chi-square test was calculated by cross tabulating the attributes of these two variables. Table 11 indicates the calculated value of Chi-Square and table 11 shows the Kendall's tau-b that measures the relationship between the cross tabulated variable.

TABLE 12: Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Ordinal by Ordinal Kendall's tau-b	.184	.082	2.237	.025
N of Valid Cases	80			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

In the table 11 since calculated value of chi-square test is 25.456 which is more than the critical value, and P value is slightly lower than 0.05 ($0.044 < 0.05$), the null hypothesis is rejected.

3.1.2 Association between occupation and preferred investment avenue

Table 13: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.903^a	15	.086
Likelihood Ratio	21.723	15	.115
Linear-by-Linear Association	.010	1	.920
N of Valid Cases	80		

a. 18 cells (75.0%) have expected count less than 5. The minimum expected count is .41.

Table 14: Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Ordinal by Ordinal Kendall's tau-b	-.008	.088	-.095	.924
N of Valid Cases	80			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

The second null hypothesis (H02) states that there is no association between the occupation and preferred derivative investment. Table 13 highlights Chi-Square test calculated value 22.903 which is less than the critical value ($22.903 < 24.996$), and P value is 0.086 which is higher than 0.05, the assumed level of significance ($p > 0.05$) therefore the null hypothesis is not rejected. So, we can conclude that there is no association between the occupation and the preferred derivatives. Selection of the investment plan is explained by some other socio-economic.

3.1.3. Relationship between Education and preference for derivatives:

Table 15: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	24.895 ^a	9	.003
Likelihood Ratio	29.723	9	.000
Linear-by-Linear Association	5.360	1	.021
N of Valid Cases	80		

a. 9 cells (56.2%) have expected count less than 5. The minimum expected count is 1.75.

Table 16: Symmetric Measures

	Value	Asymp. Std. Error ^a	Approx. T ^b	Approx. Sig.
Ordinal by Ordinal Kendall's tau-b	.242	.102	2.365	.018
N of Valid Cases	80			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

The third null hypothesis (H03) states that there is no significant relationship between education and investment preference. Table 15 shows the chi-Square value calculated to be 24.892 which is higher than the critical value (16.919) at 9 degree of freedom. P value is 0.03 which is less than 0.05 the assumed level of significance. Therefore, the null hypothesis is rejected. So, we can infer that education determines the selection of Investment Avenue.

4. FINDINGS AND SUGGESTIONS

- Majority of the investors depend on friends and peers for information that guides them in their investment endeavor.
- Market risk is perceived to be the critical factor and they are more sensitive to it. In order to manage risk, they resort to friends and peers to guide and act accordingly.
- Majority of the investors prefer stock index future.
- For majority of the investors, safety of the principal is the main objective of investment. This indicates the low level of risk tolerance.
- There is no association between the occupation and the preferred derivatives.
- There is no significant relation between occupation and criteria for investment selection. There exist the relation between level of education and investment preference.
- We also find that the important barrier to invest in derivatives determines the attitudes of investors towards the kind of derivatives.

- High margin is the worry for investors

It can be suggested that the investment industry, financial advisors, brokers and media should educate the investors by disseminating the right information at the right time. Awareness programmes may be arranged so that the general public and retail investors get proper guide to know the benefits of derivatives in terms of their ability to counter balance the risks associated with the instruments and contracts. Investors are advised to split their investment in different baskets (portfolio) of investment so that hedging their portfolios they could mitigate the risk instantly.

4.1 LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The basic limitation of the study is the small sample size. A study, covering more cities of Karnataka and taking more sample, replicate more generalised results. As the Study is based on the responses of individuals, bias cannot be ruled out. Only customers of the study units are given the questionnaires, using snowball method. Hence, further studies can be initiated with large samples covering more number of places.

4.2 CONCLUSION

Derivatives are popular only in big cities of Karnataka. Investors are not fully utilizing the derivative segment in the study area. Retail investors are not much aware of the intrinsic quality of derivatives in effective managing of risks. Lack of awareness and insufficient information and the high margin are found to be the most important barriers to the growth of derivatives trading in the retail segment. Proper timely information, careful watching of

behavior of other forces, tactful negotiation, and very importantly sufficient experience in the derivative trading certainly help the investors to effectively manage the risk associated with the trading. In this study we found the awareness level, preferred investment in derivatives, factors considered while investing and the association between occupation and preferred investment, and between barrier and preferred investment avenue, education and investment preference. Their perception towards the future of derivative market in India shows optimistic behavior towards derivatives. So, we conclude that derivative market will grow in future, and therefore investors' education and awareness is indeed required in every city.

REFERENCES:

- David Nicolaus (2010). Derivatives Choices of Retail Investors: Evidence from Germany. pp. 1-31, available at <http://www.mfa2013.com/papers> (12/07/2013)
- Gopikrishna Suvanam & Amit Trivedi (2011). "Imbalances Created because of Structured Products in Indian Equity markets" pp. 3-28, available at www.nseindia.com/content/research/res_271_completed.pdf (23/09/2013)
- Himanshu Barot & V.K. Sapovadia (2012). "A Study of Investors' Preferences towards Various Investment Avenues in Capital Market with Special Reference to Derivatives in Ahmedabad City", International Journal of Management, IT, and Engineering, Vol. 2, Issue 10, pp. 225-242

- Jennifer Reynolds-Moehrle (2005). "Management's disclosure of hedging activity: An empirical investigation of analysts and investors reactions", *International Journal of Managerial Finance*, Vol.1 Issue 2, pp. 108-122
- K. Ravichandran (2007). "A study on Investors Preferences towards various investment avenues in Capital Market", pp. 1-11, available at
<http://faculty.ksu.edu.sa/76252/Documents/investorriskpreference1.pdf> (18/11/2013)
- P. M. Deleep Kumar and G. Raju (2001). "Indian Capital Market: a retrospect", pp. 1-11, available at www.icwai.org/icwai/knowledgebank/fm28.pdf (13/12/2013)
- Peter Carr and Dilip Madan (2001). "Optimal positioning in derivative securities", *Quantitative Finance*, Vol. 1, pp. 19-37
- R. Dixon and R.K. Bhandari (1997). "Derivatives, risk and regulation: chaos or confidence?" *International journal of Bank Marketing*, Vol. 15 Issue 3, pp. 91-98
- Randall Dodd and Stephany Griffith-Jones (2006). "Report on Derivatives Markets: Stabilizing or Speculative Impact on Chile and a Comparison with Brazil", pp. 1-38, available at
http://policydialogue.org/files/events/DoddGriffith.Jones_Chiles_derivatives_markets.pdf (23/08/2013)
- S. Saravanakumar, S. Gunasekaran and R. Aarthy (2011). "Investors Attitude towards Risk and Return Content in Equity and Derivatives", *Indian Journal of Commerce & Management Studies*, Vol. 2 Issue 2, pp. 1-11
- Warren Buffet (2002). "Warren Buffet on Derivatives", pp. 1-2, available at <http://www.fintools.com/docs/WarrenBuffetonDerivatives.pdf> (10/09/2013)
- Vinay Mishra and Harshita Bhatnagar (2009). "A Conceptual Sketch of Derivatives Trading in India: A Regulatory Approach" pp. 1-17, available at www.cics.northwestern.edu/documents/nir/v2n1MishraBhatnagar.pdf (2/01/2014)

IMPACT OF DEMOGRAPHICS ON CONSUMERS WILLINGNESS TO PAY PREMIUM: A STUDY OF ORGANIC FOOD PRODUCTS

Shashikiran L*
Dr. C. Madhavaiah**

Abstract:

The study represents the data collected from the organic consumers of Bangalore City which is one of the major markets of organic products in South India. The study examined consumers' WTPP (Willingness to Pay Premium) for organic food products based on a sample of 150 consumers of Bangalore City during the year 2014. About 53% of the consumers are aware that organic produce is available in the market. Data were collected in supermarkets, organic food shops and departmental stores in different areas of Bangalore. The data collected during the survey were analyzed using percentage analysis and ANOVA. Result indicated that most of the consumers are eager to pay 20-30 per cent more for organic food products and are heavily influenced by the perception on organic product worth of pay for and the belief on the safety and health aspect of the product.

Keywords: Willingness to pay, Organic food, Demographics,

1. Introduction

Organic food is sold at higher price compared to non-organic food since the prime cost of organic food is higher. However, for a value conscious country like India this hampers the growth opportunities of organic food market. People in the developed nations are more inclined towards processed food items in comparison to the consumers in developing nations who prefer fresh fruits & vegetables. The case is quite similar with organic foods as well wherein these food items have a higher demand in developing nations where consumers are more quality conscious.

Consumers worldwide have become more concerned about the nutrition, health, and quality of food they eat. Consumers are increasingly considering factors beyond taste, convenience, and price when purchasing food. (Andrea k. Ballute 2014) [1]. One of the primary ways of reflecting environmental and health consciousness is through purchase of organic products.

India is rapidly emerging as one of the fastest

growing and largest market for organic food sector in the world. (Osswald. N and Menon M.K et.al)[14]. Domestic demand is supporting this growth. It is estimated that the overall market potential in the major cities of India is around INR 1,452 crore and the accessible market potential through modern retail is about INR 570 crore. (Rao et al. 2006;175) , [16] supported by a change in consumer behaviour and expenditure patterns. With increasing health awareness among the high income level of consumers, organic food will surely find an enduring place in Indian households.

The earlier studies stated that educated consumers may make purchases based on the impact that products have on the environment; for example, an educated consumer may choose organic cotton over conventional cotton (Nolan, 2006b; Speer, 2006) [4][15]. It is considered that consumers with a greater environmental awareness, demand for more environmentally friendly merchandise (Montoro et al., 2006) [13].

In this context, the present study aims to examine the impact of demographics on

consumer's willingness to pay premium for organic food products.

Review of Literature

Various studies deal with price premiums that consumers are ready to pay for organic products across the world. Research has shown, however, that consumers' concern for environmental issues may not always correlate with their consumption behaviour (Harcaret al., 2006)[7]

In a study by Krystallis and Chryssohoidis (2005)[10], Greek respondents were asked to state how much more they were willing to pay to buy organic food products. The results show that consumer WTP was not influenced by organoleptic characteristics, prices or socio-demographic profiles.

Voon et.al (2011)[21], in their study, investigated the "Determinants of willingness to purchase organic food among consumers in a Malaysian city", using a questionnaire survey. Using structural equation modeling; attitude, subjective norms and affordability (behavioral control) were modeled to impact intention or willingness to pay (WTP) for organic food.

Shafi and Madhavaiah (2013)[20] aimed to investigate the inter relationship between the measure of brand equity and consumer behaviour in purchasing branded organic foods. The results revealed that all the four elements of brand equity have highest impact on consumer buying behaviour. However, results also showed that brand loyalty has the highest impact on consumer purchasing behavior.

Urena et. al(2007)[5] found that women have a more favorable attitude (directly related to their lifestyle) to the purchase and consumption of organic food than that of men, whereas men are inclined to pay a higher price for organic food than women. In general, men are disposed to pay a higher increase in price than women.

Canavari et al. (2003)[3] conducted a study on WTP for organic fruit and showed that two out of three respondents were ready to pay the proposed percolations between environmental shopping attitudes and willingness to pay more

for organic cotton products, and environmental shopping behaviour and willingness to pay more for organic cotton products. In addition, a comprehensive profile of characteristics of potential organic cotton consumers was developed.

Gifford and Bernard (2010)[6], examined the effect of definitions for organic and natural foods on willingness to pay a premium for organic over natural chicken. After analysis, they found that there is a difference in the % willingness to pay to buy organic chicken before and after information was made available about the quality of chicken. After information, nearly 50% increased their premium, while 30% decreased their premium.

Sujatha et.al (2013) [17] indicated that most of the consumers are eager to pay 20 per cent high for organic food products and were heavily influenced by the perception on organic product worth of pay for and the belief on the safety and health aspect of the product.

Research Gap

Based on the literatures reviewed, it was learnt that there are many qualitative & quantitative factors vital to consume or adopt organic food. There is less number of researches in India to describe the impact of specific demographic factor on willingness to pay premium amount to consume organic food.

OBJECTIVES

1. To understand the demographic profile of organic food buyers
2. To study the influence demographic factors on organic food purchase.
3. To examine the willingness of the respondents to pay premium price for organic food products.

RESEARCH METHODOLOGY

The present study is based on the primary data collected during May & June 2014 in Bangalore city. Out of 180 Organic food outlets (which include exclusive organic food outlet and Retail shop selling organic food products as one of the category). All the stores were divided into North, South, East & west zones

and the data were collected from 10 stores in each zone. A questionnaire was issued randomly to consumers in all the 40 selected stores. 150 completed questionnaires were used for the analysis purpose resulting in 76% response rate.

One-way ANOVA was applied to find whether the consumers' willingness to pay premium for

organic food product differs significantly between demographic variables.

Hypothesis

In order to identify the significance of demographic factors, each factor is considered and relevant hypotheses are designed for testing purpose.

RESULTS AND DISCUSSIONS

Table 1: Demographic Profile

DEMOGRAPHICAL FACTORS	CLASSIFICATION	FREQUENCY	PERCENTAGE
Age	18-30 Years	31	20.0
	31-40 Years	57	38.0
	41-50 Years	47	32.0
	>51 Years	15	10.0
Gender	Male	49	32.7
	Female	101	67.3
Marital Status	Married	114	76.0
	Unmarried	36	24.0
Literacy level	No formal Education	11	7.3
	School Level	32	21.3
	Metric Level	21	14.0
	Undergraduate	48	32.0
	Post Graduate	33	22.0
	Others	5	3.3
Occupational Status	Employee	57	38.0
	Professional	34	22.7
	Businessman	41	27.3
	Others	18	12.0
Family Type	Nuclear	116	77.3
	Joint	34	22.7
Family Size	1-3 Members	78	52.0
	4-6 Members	51	34.0
	> 6 Members	21	14.0
Monthly Income	<20000	26	17.3
	20001- 30000	39	26.0
	30001-40000	41	27.3
	40001-50000	14	9.3
	>50000	30	20.0

Around 38% of them are in the age group of 31 - 40 years, 32 % of the respondents are in the age group of 41 – 50 years , 67% of them are female. It is implied that 76% of the respondents are married 32% of them are undergraduates, 22% of the respondents are postgraduates and 3% of the respondents fall under 'others' category. 38% of them are employees, 77% of the respondents belong to nuclear family and 23% of the respondents are in joint family. It is

implied that, 52% of the respondents have 1 to 3 members in their family. It is found that, almost (27%) of the respondent's monthly income is ranging between Rs.20001- Rs.30000.

Consumer willingness to pay premium for Organic Food Products.

The table 2 describes the consumer willingness to pay high price for organic food products.

Table - 2 : Consumer Willingness to pay high for Organic Food Products

Willingness to pay high for organic food	No. of Respondents	Percentage
No, I don't like to pay extra	5	3
Yes, for Organic food, I shall pay between 1 to 10% high	25	17
20% high	35	23
30% high	40	27
40% high	18	12
50% high	12	8
For quality food products, I won't mind the money	15	10
Total	150	100

Source: Primary Data

Among the respondents, 3% of them do not wish to pay extra price to organic food products compared with non-organic products, 17% of them wish to pay high between 1 to 10%, 23% of them wish to pay 20% high, 27% of the respondents wish to pay high 30%, 8% of them wish to pay 40% and above, 8% of the respondents wish to pay 50% and above, and the remaining 10% of them wish to pay high for quality products and won't mind the cost.

It is implied most that, 27% of the respondents wish to pay 30% high for organic food products.

Similar study by Asadi et al. (2009) [2] in Iran reported that majority of the consumers are not willing to pay a price premium higher than 20%. The similar study by Millock (2002)[12] in Denmark reported that, 35% of the consumers are willing to pay more for any type of organic products compared to 18% of consumers who are not willing to pay for all kind of products.

Menon (2008) [11] on his paper organic agriculture and market potential mentioned that the organic product are gaining price premium from 5% to as high as 60% in some products.

Sandalidon et.al (2002) [18] has mentioned that health is the main reason for purchase of organic, followed by quality characteristic such as taste, colour and flavor.

One way ANOVA

Table 3 describes the willingness to pay high for organic foods among the demographic variables such as age, gender, marital status, Literacy Level, Occupational status and type of family, family size and monthly income of the respondents.

The current investigation developed eight hypotheses to test regarding the objectives of this study. Each hypothesis tested for significant differences between groups towards Willingness to pay premium for purchase of organic food.

H0: Consumer willingness to pay premium for organic foods does not vary significantly among the demographic variables of the respondents.

H1: Consumer willingness to pay premium for organic foods varies significantly among the Age Group of the respondents.

H2: Consumer willingness to pay premium for organic foods varies significantly among the Gender group of the respondents.

H3: Consumer willingness to pay premium for organic foods varies significantly among the Marital Status of the respondents.

H4: Consumer willingness to pay premium for organic foods varies significantly among the Literacy level of the respondents.

H5: Consumer willingness to pay premium for organic foods varies significantly among the Occupation level of the respondents.

H6: Consumer willingness to pay premium for organic foods varies significantly among the Family Type of the respondents.

H7: Consumer willingness to pay premium for organic foods varies significantly among the Family Size of the respondents.

H8: Consumer willingness to pay premium for organic foods varies significantly among the Monthly Income of the respondents.

Table 3: Significance of Demographic factors on Consumers' Willingness to Pay Premium for Organic food products in Bangalore City

Age	Source of Variation	Sum of square	Degree of freedom	Mean Square	F Value	F critical Value	Significance
	Between Groups	261.43	6.00	43.57	3.56	2.57	S
	Within Groups	257.00	21.00	12.24			
	Total	518.43	27.00				
Gender	Between Groups	591.86	6.00	98.64	2.09	3.87	NS
	Within Groups	331.00	7.00	47.29			
	Total	922.86	13.00				
Marital Status	Between Groups	707.86	6.00	117.98	1.22	3.87	NS
	Within Groups	679.00	7.00	97.00			
	Total	1386.86	13.00				
Literacy level	Between Groups	194.62	6.00	32.44	3.36	2.37	S
	Within Groups	337.67	35.00	9.65			
	Total	532.29	41.00				
Occupational Status	Between Groups	197.93	6.00	32.99	2.49	2.57	NS
	Within Groups	278.50	21.00	13.26			
	Total	476.43	27.00				
Family Type	Between Groups	688.86	6.00	114.81	1.25	3.87	NS
	Within Groups	642.00	7.00	91.71			
	Total	1330.86	13.00				
Family Size	Between Groups	509.24	6.00	84.87	3.61	2.85	S
	Within Groups	329.33	14.00	23.52			
	Total	838.57	20.00				
Monthly Income	Between Groups	223.09	6.00	37.18	3.16	2.45	S
	Within Groups	329.60	28.00	11.77			
	Total	552.69	34.00				

S= Significant NS= Not Significant

One-way ANOVA was applied to find whether the consumers' willingness to pay premium for organic food product does not differ significantly between demographic variables. F-value is, less than the table value at 5 per cent level of significance in case of gender, Marital Status, Qualification & family type. (Table-3) This indicates that there is no significant difference among different groups of Gender, Marital Status and Qualification & Family type of the sample with their willingness to pay premium to buy organic food products.

Hence, in case of Age, Gender, Marital Status,

Qualification & Family type the null hypothesis is accepted.

(Table- 3) Analysis shows that F-value is more than the table value at 5 per cent level of significance in case Literacy Level, Family size & monthly income level, indicating that there is a significant difference among different groups of Age, Literacy Level, Family size & monthly income level of the sample with their willingness to pay premium price to buy organic food products.

It is inferred that the the demographic factors ;

Age, Literacy level, Family size & monthly income level will largely impact the willingness to pay premium for the organic food.

Conclusion

Consumers have high positive attitude towards organic products and they exhibit an increased willingness to pay higher prices for these products. Few consumers don't mind to pay even 50 % high for organic food products as they look for good quality and healthy products. For such reason, marketing strategies for organic food products must be targeted towards those segments of consumers almost appreciative of the positive attributes of organic food.

Here is a strong relationship between income and willingness to pay a premium. It can be expected that more affluent markets where consumers are aware about organic food products will purchase them and pay a price differential for organic over non organic products.

It is recommended that the organic sellers must match their pricing strategy to the value delivered by the organic product since the monthly income factor in the analysis as shown significant difference in preferring to pay premium price to buy the organic goods. Although consumers are preferring to buy organic products and willing to pay the additional cost, they often want some reassurance of the organic status of the products. Therefore, marketing organic products with standard packaging and a logo or statement confirming the organic status adds to the value of the products in terms of quality and social benefits, etc. Building consumer trust, in other ways, is also essential.

References

- Andrea k. Ballute, paul d. Berger (2014), The Perceptions Of And Motivations For Purchase Of Organic And Local Foods, *Journal of Contemporary Issues in Business Research* Volume 3, Issue No. 1, 2014.
- Asadi, A., M. Akbari, A. Sharifazadeh, and S.M. Hashemi, 2009. Analysis of Factors Affecting Agricultural Organic Products Diffusion among Consumers: Perception of Extension Workers. *World applied science journal*. 6 (3): 331-338.
- Canavari, M., Nocella, G. & Scarpa, R. (2003) Stated willingness-to-pay for environment-friendly production of apples and peaches: webbased vs. in-person surveys. Paper presented at the 83rd EAAE Seminar, Chania, 4-6 September.
- Essays, UK. (November 2013). Consumer Behaviour In Organic Clothes Marketing Essay. Retrieved from <http://www.ukessays.com/essays/marketing/consumer-behaviour-in-organic-clothes-marketing-essay.php?cref=1>
- Felix Ureña, Rodolfo Bernabéu and Miguel Olmeda (2007) Women, men and organic food: differences in their attitudes and willingness to pay. A Spanish case study-*International Journal of Consumer Studies*- ISSN 1470-6423.
- Gifford, K. and Bernard, J. C. (2011), The effect of information on consumers' willingness to pay for natural and organic chicken. *International Journal of Consumer Studies*, 35: 282-289. doi: 10.1111/j.1470-6431.2010.00929.x
- Harcar, T., Kara, A. and Kucukemiroglu, O. (2006), "Consumer's perceived value

and buying behavior of store brands: an empirical investigation", *The Business Review*, Vol. 5 No. 2, pp. 55-63.

- Jan P Voon, Kwang Sing Ngui and AnandAgrawal (2011), "Determinants of Willingness to Purchase Organic Food: An Exploratory Study Using Structural Equation Modeling" *International Food and Agribusiness Management Review* Volume 14, Issue 2.
- Katie Gifford and John C. Bernard (2010), The effect of information on consumers' willingness to pay for natural and organic chicken, *International Journal of Consumer Studies* ISSN 1470-6423.
- Krystallis, A. & Chryssohoidis, G. (2005) Consumers' willingness to pay for organic food: factors that affect it and variation per organic product type. *British Food Journal*, 107, 320-343.
- Menon, M.K., 2008. Organic Agriculture and Market Potential for Organic products in India. In P.Chaudhary; K. Aryal and D. Tharu (ed.), *Proceedings of International Workshop on Opportunities and Challenges of Organic Production and Marketing in South Asia*, NPG, Kathmandu, Nepal, pp.87-94.
- Millock, K., L.G. Hansen, M. Wier and L.M. Anderson., 2002. Willingness to Pay for Organic products: A Comparison between Survey Data and Panel Data from Denmark, AKF Denmark.
- Montoro, F.J., Luque, T., Fuentes, F. & Canadas, P. (2006) Improving attitudes toward brands with environmental associations: an experimental approach. *Journal of Consumer Marketing*, 23, 26-33.
- Nina Osswald and Manoj Kumar Menon (2013), *Organic food marketing in urban centres of India*. Bangalore, ICCOA.
- Nolan, K. (2006b) Organic clothes grow past Woodstock crew.DSN *Retailing Today*, 45, 5-6.
- Rao, Kishore(2006), PGS A Market Perspective, Perceptions to Organic food and certification/labels/PGS Concept in India, New Delhi, Food and Agricultural Organisation (FAO).
- S.Sujatha,Dr.(Mrs.) N.Yesodha Devi, Mrs.R.Krishnakumari(2013), *Indian Journal Of Applied Research*, Volume : 3 | Issue : 12 | Dec 2013 | ISSN - 2249-555X, 327-329.
- Sandalidou, E., Baourkis, G. and Siskos, Y. 2002. Customers' perspectives on the quality of organic olive oil in Greece: A satisfaction evaluation approach. *British Food Journal*. 104(3/4/5):391-406.
- Shu-Hwa Lin (2010), A case study in Hawaii: who will pay more for organic cotton?, *International Journal of Consumer Studies* ISSN 1470-6423.
- Syed Irfanshafi and c. Madhavaiah (2013) The Influence of Brand Equity on Consumer Buying Behaviour of Organic Foods in India *Journal of Marketing & Communication* September - December 2013 Vol. 9 Issue 2.
- Voon, Jan P. and Ngui, Kwang Sing and Agrawal, Anand, *Determinants of Willingness to Purchase Organic Food: An Exploratory Study Using Structural Equation Modeling* (January 30, 2011). *International Food and Agribusiness Management Review*, Vol. 14, No. 2, pp. 103-120, 2011.

FINANCIAL PLANNING BEHAVIOUR AMONG EARNING YOUTHS IN BANGALORE A COMPARATIVE STUDY OF EMPLOYEES OF FINANCIAL SECTOR AND NON-FINANCIAL SECTOR

Gowrish*
Manjunath M**
Suman T S***

Abstract :

This study is an attempt to find the financial planning behaviour among earning youths in Bangalore. The main objective of the study is to find out is there any significant difference in financial planning behaviour between employees of financial sector and non-financial sector. The study tries to find the pattern of expenditure as well as the pattern of investment of employees of financial sector and non-financial sector. Primary data was collected by conducting a survey by distributing questionnaires to working young employees of financial sector and non-financial sector. It was found that the objective of investment for the majority of young employees of financial sector and non-financial sector is to conserve capital and generate income. Most of them have an investment for medium term range. Most of them are doing financial planning by themselves. In the study, it is observed that young employees of financial sector and non-financial sector are planning their financial affairs with long-term goals but they are not doing it in a comprehensive manner. It is concluded that the financial planning behavior of the employees of both sectors does not necessarily depend on their sector of employment.

Key words: Financial planning, Financial behavior, Investments, Savings, Earnings, Young employees

Introduction to Financial Planning:

Financial Planning is the process of meeting life goals through the proper management of finances. Financial planning is a process that a person goes through to find out where they are now (financially), determine where they want to be in the future, and what they are going to do to get there. Financial Planning provides direction and meaning to persons financial decisions. It allows understanding of how each financial decision which a person takes affects other areas of their finances. For example, buying a particular investment product might help to pay off mortgage faster or it might delay the retirement significantly. By viewing each financial decision as part of the whole, one can consider its short and long-term effects on their life goals. Person can also adapt more easily to life changes and feel more secure that their goals are on track. In simple, Financial Planning is what a person does with their money. Individuals have been practicing financial planning for centuries. Every

individual who received money had to make a decision about the best way to use it. Typically, the decision was either spends it now or save it to spend later. Everyone have to make the same decision every time they receive money.

Factors to be considered while doing Financial Planning are:

- Time Horizon and Goals
- Risk Tolerance
- Liquidity Needs
- Inflation
- Need for Growth or Income

Six step process of Financial Planning:

1. Self assessment
2. Identify financial, personal goals and objectives
3. Identify financial problems or opportunities

Gowrish*, Assistant Professor, R V Institute of Management, Bangalore, E-mail : gowrishajoshi@gmail.com
Manjunath M**, Assistant Professor, R V Institute of Management, Bangalore
Suman T S***, Marketing Executive & Customer Relationship Manager, SNN Builders Pvt. Ltd., Bangalore

4. Determine recommendations and alternative solutions
5. Implement the appropriate strategies to achieve goals
6. Review and update plan periodically

Constituents of Financial Planning

A good financial plan should include the following things

- Contingency planning
- Savings and Investment planning
- Retirement Planning
- Tax Planning
- Risk Planning

Review of Literature

Crankshaw & Hugh (2006): The research entitled "Personal financial planning: strategies for successful practice management" identified principles of practice management as applied to the personal financial planning process. The purpose of this research was to establish principles that Financial Planners could use to improve service delivery to the individual. In broad terms this is known as practice management and this research attempted to develop a greater understanding of practice management and provide a basis for further research on the subject. To do this in a meaningful way the research had two structured phases. The first phase was a theoretical study that provided the basis for the design of a research instrument. The second phase was an empirical study that was done on the responses received on the research instrument to establish principles of practice management. The research successfully identified four components and twenty principles of practice management, as well as three demographic drivers of income and succeeded in meeting the research objectives.

David S Murphy (2010): The research paper

title is "Personal financial planning attitudes: a preliminary study of graduate students". The purpose of this paper is to report on a survey about the personal financial planning attitudes of MBA students in the USA. The study surveyed 206 MBA students about their attitudes to personal financial planning. Participants were asked about their level of knowledge, whether they had prepared components of a financial plan, where they might seek assistance in such a process and the criteria for selecting a financial planner. In addition, participants were asked to indicate their level of confidence in a financial plan's capacity to help them to meet their long-term needs and the likelihood that they would implement such a plan.

The findings indicate that, while most respondents feel both financial planning is important and that they are interested in developing a financial plan, very few feel that they have the necessary skills and knowledge to prepare their own plan. In addition, the participants indicated a strong preference for professional personal financial planning advice. The study also indicates that less than 13 percent have prepared a comprehensive personal financial plan. When asked to identify the one professional from whom they would seek advice, certified financial planners were the preferred resource. While the results are not generalizable to the wider population, the views of this group are important because one might expect that educated individuals would be both more interested in personal financial planning and more capable of preparing their own plans compared with average Americans.

The study presents some implications for practice and financial literacy education from a US perspective. A perceived need of respondents is to feel that their financial planner will put their needs first. While some professionals believe this to be the hallmark of "independence," the respondents placed less importance on planner independence. In order to foster client confidence, planners must act in ways that convey clearly the primacy of their

clients' needs.

Ming-Ming Lal & Wei-Khong Tan (2009): This paper examines the attitudes of the Malaysians towards personal financial planning which encompasses money management, insurance planning, investment planning, retirement planning and estate planning. A survey data was obtained from 400 Malaysians by using a set of structured questionnaire. They associated personal financial planning with three measures: attitudes towards personal financial planning, factors influencing various aspects of personal financial planning and frequency of managing for various aspects of personal financial planning. The results show that the job status of a respondent is the primary factor in influencing attitudes towards personal financial planning and the frequency in managing for various aspects of personal financial planning. Demographic characters such as age, race, marital status, gender, and education level are the secondary factors which were concerned.

Manuel Tarazo (2008): This study proposes a state preference-enhanced, Linear Expenditure (LE) system as a framework for household financial planning. Individual (small) investors first identify necessary and discretionary consumption; then, they dedicate fixed income funds to cover expected necessary consumption. The remaining funds are then available for variable income investing.

Tahir, Izah Mohd1, Abu Bakar, Nor Mazlina10 (April 2010): Managerial Competency is considered a key factor in contributing to the survival and performance of earning youths in both financial and non financial organizations. It has been proven that firm performance and managerial competencies are interrelated with financial planning behavior. This study presents the findings of managerial competencies in the Malaysian financial services sector, 48 items under 16 managerial competency dimensions i.e., Leadership, Communication, Customer Concern, Team Building, Team Membership, Results, Personal

Drive, Planning, Efficiency, Decision Making, Coaching and Counseling, Managing Change, Stress Management, Crisis Management, Creativity and Innovation, as well as Integrity are used.

The results of this study indicate that the core competencies for managers of financial institutions in Malaysia are Leadership, Team Building, Communication, Results, Efficiency and Coaching and Counseling. The results also indicate that the managers are reckoned to have performed at a level between fair and good with their competencies earning a score between 4 and 5 on the performance scale. Further, the results also show that no competencies are found with substantial score disparity reflecting that bank managers had little pressing need for training in any particular competency.

Statement of the problem

Financial planning is an important factor for individuals from the point of view of growth in life. How a young earner is utilizing his income, his risk tolerance capacity and attitude towards expenditure and savings will decide his behavior towards financial planning. Financial planning behaviour among the employees of financial sector and non-financial sector may differ significantly due to the level of the knowledge of individuals on the financial matters. Thus, a comparative study on financial planning among employees of financial sector and non-financial sector is an attempt to know the financial profile of the individuals and also to know whether the sector to which they belong will have a significant impact on the financial planning.

Objectives of the study

1. To study the financial planning behaviour of employees of financial sector and non financial sector.
2. To find is there any significant differences in financial planning behaviour between employees of financial sector and non-

financial sector.

3. To identify the financial risk taking ability among the respondents.
4. To identify the investment and expenditure patterns of the respondents.

Hypothesis:

Ho- Financial planning behavior is independent of the sector

H1- Financial planning behavior is dependent of the sector

Research methodology

This is an empirical study which attempts to find the financial planning behavior of employees from financial sector and non-financial sector. The study is conducted in Bangalore city.

Sampling method

Stratified sampling technique is used for selection of respondents for the study. The whole population is divided into two strata i.e. financial sector and non-financial sector to check the gap in their financial planning behavior. The data is collected from each strata independently.

Sample unit

Young individuals employed in financial and non-financial sector between the age group of 18-35 years old who are working in Bangalore is the unit of sample.

The young employees who work in credit unions, banks, insurance companies, consumer finance companies, stock brokerages and investment companies are considered under the category of financial sector employees. In non financial sector the employees who are working in business organization other than financial sector and professionals like doctors, lawyers, consultants etc are considered.

Sample size

The total sample size is 150 which include 75 employees from financial sector and 75 employees from non financial sector.

Data collection

- **Primary Data:** Primary data is collected through survey method with the help of structured questionnaire from the respondents. Survey is conducted by meeting each respondent individually at their convenient place and time.

Data collection tool

Structured questionnaire is used for the collection of primary data. The questionnaire contains questions about employee's personal information. Savings, emergency sources of funds, expenditure, retirement plan, tax planning, insurance policy, risk appetite, investment decision, tax benefits and financial planning behaviour.

Tools and techniques of data analysis

The primary data is processed, categorized and tabulated according to the requirement of the analysis. The data collected through questionnaires were presented in the form of tables and charts with percentile analysis. Based on the objectives of the study suitable hypothesis are framed. Hypothesis is tested by using Chi square test at 5% level of significance.

Limitations of the study

- Generalization of the topic cannot be made from the samples drawn since the sample size is small.
- The respondents who have responded might not have given correct information. There is chance of biased information from respondents.
- Lack of time is one of the main constraints.

1. Monthly savings

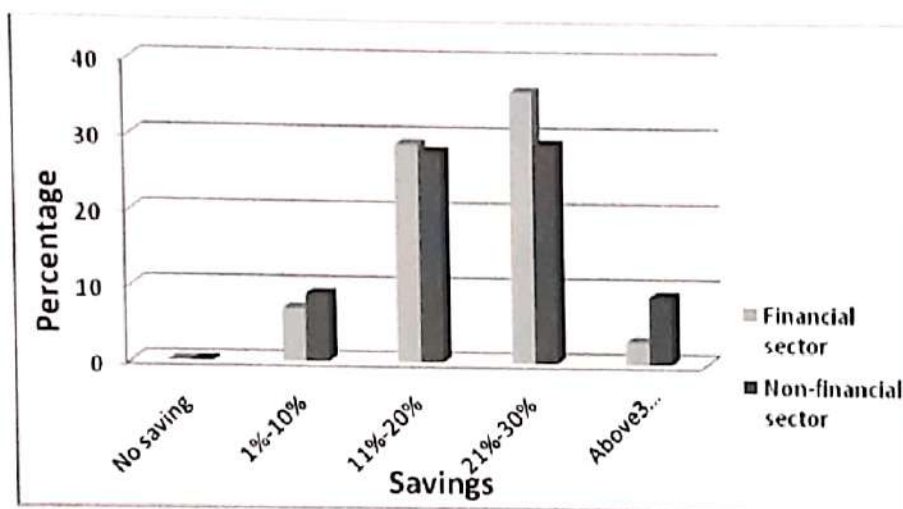
Table 1 - Classification of respondents on the basis of their monthly savings

Savings	Financial sector		Non-financial sector	
	Frequency	Percentage	Frequency	Percentage
No saving	0	0%	0	0%
1%-10%	7	9%	9	12%
11%-20%	29	39%	28	37%
21%-30%	6	48%	29	39%
Above30%	3	4%	9	12%
Total	75	100%	75	100%

Source: Primary data

Note: Savings are given in percentage of monthly income of the respondents.

Chart 1 - showing Classification of respondents on the basis of their monthly savings



Analysis:

The above table shows that, out of total respondents of employees of financial sector, zero percent of them do not save, 9 % them save 1%-10%, 39% of them save 11%-20%, 48% them save 21%-30% and 4% them save above 30% of their monthly salary. Whereas in non-financial sector zero percent of them do not save, 12 % of them save 1%-10%, 39% of them save 11%-20%, 37% them save 21%-30% and 13% them save above 30% of their monthly salary.

Inference:

From the above analysis, it can be inferred that, majority of young financial sector employees save between 21-30% of their monthly salary and non-financial sector employees save between 11%-20% of their monthly salary. Respondents' do not save category is null, which shows that 100% of financial sector and non-financial sector employees save some amount of their monthly salary.

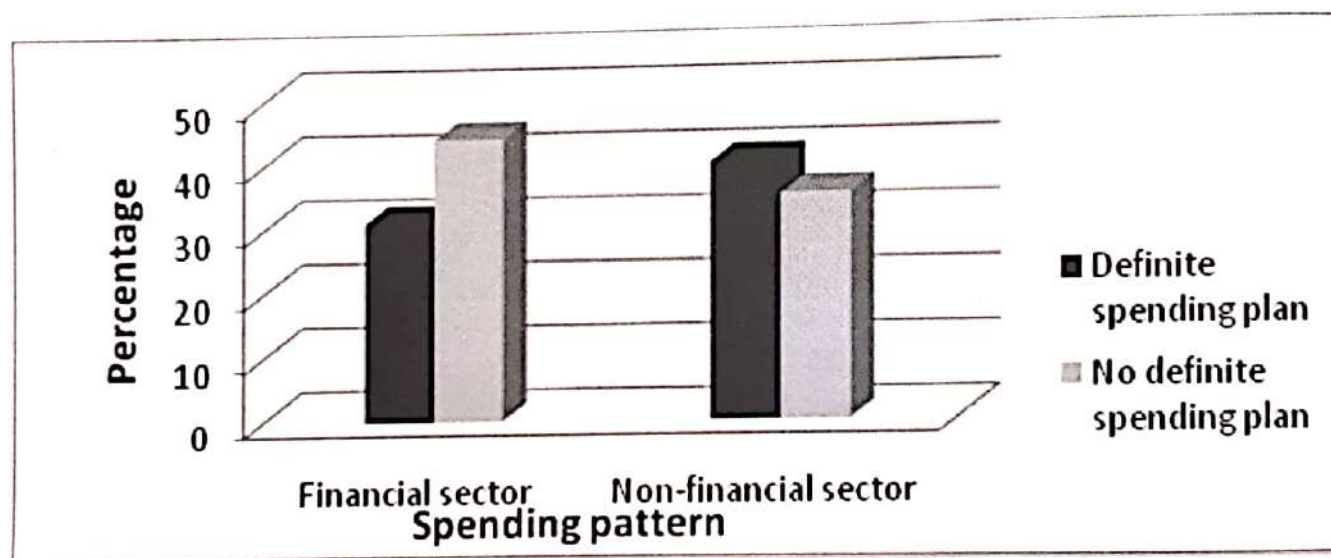
2. Pattern of regular monthly expenses

Table 2: Classification of respondents on the basis of pattern of regular monthly expenses

Spending pattern	Financial sector		Non-financial sector	
	Frequency	Percentage	Frequency	Percentage
Definite spending plan	31	42%	40	53%
No definite spending plan	44	58%	35	47%
Total	75	100%	75	100%

Source: Primary data

Chart 2: Classification of respondents on the basis of pattern of regular monthly expenses



Analysis:

The above table shows that, out of total respondents of employees of financial sector 41% of them have a definite spending pattern and 58% of them don't spend in a planned manner. Whereas compared to employees of non-financial sector 53% of them have a definite spending pattern and 47% of them do not spend in a planned manner.

Inference:

From the above analysis, it can be inferred that the majority of young financial sector employees do not spend in planned manner. In terms of percentage the majority of non-financial sector employees have a definite spending pattern, but there is no much difference between spending and non-spending pattern between two sectors.

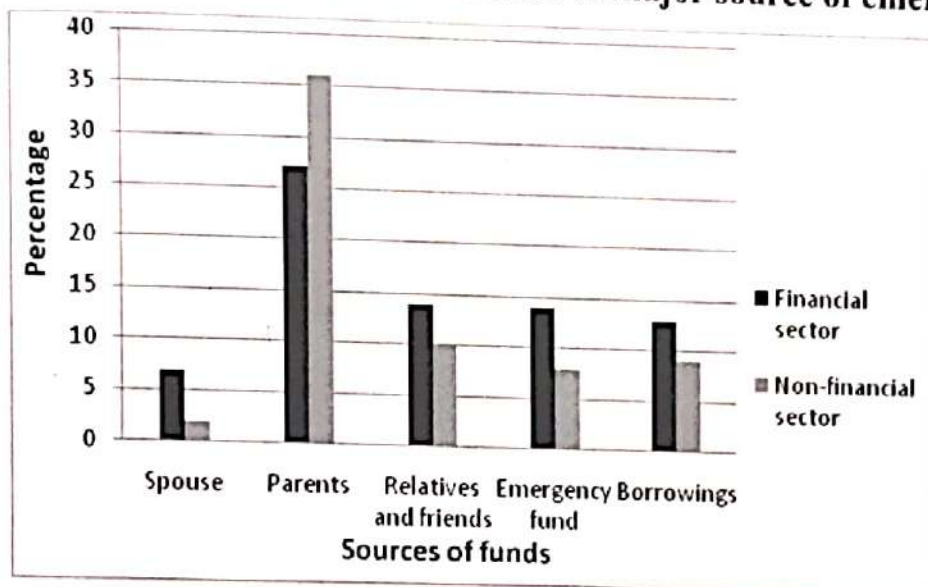
3. Major source of emergency fund

Table 3: Classification of respondents on the basis of major source of emergency fund

Emergency funds	Financial sector		Non-financial sector	
	Frequency	Percentage	Frequency	Percentage
Spouse	7	9%	2	3%
Parents	27	36%	36	48%
Relatives and friends	14	19%	10	13%
Created an emergency fund	14	19%	8	11%
Borrowings	13	17%	19	25%
Total	75	100%	75	100%

Source: Primary data

Chart 3 : Classification of respondents on the basis of major source of emergency fund.



Analysis:

The above table shows that, out of total respondents of employees of financial sector, 9% of them will depend on spouse, 36% of them depend on parents, 19% of them depend on relatives and parents, 19% of them have created an emergency fund and 17% on borrowings.

Whereas in case of employees of non-financial sector, 3% of them will depend on spouse, 48% of them depend on parents, 13% of them depend on relatives and parents, 11% of them have created an emergency fund and 25% on borrowings.

Inference:

From the above analysis, it can be inferred that the majority of young financial sector and non-financial sector employees have considered their parents as a major source emergency funds. Most of them have not created any emergency fund or they don't have a plan to face emergency requirement of money.

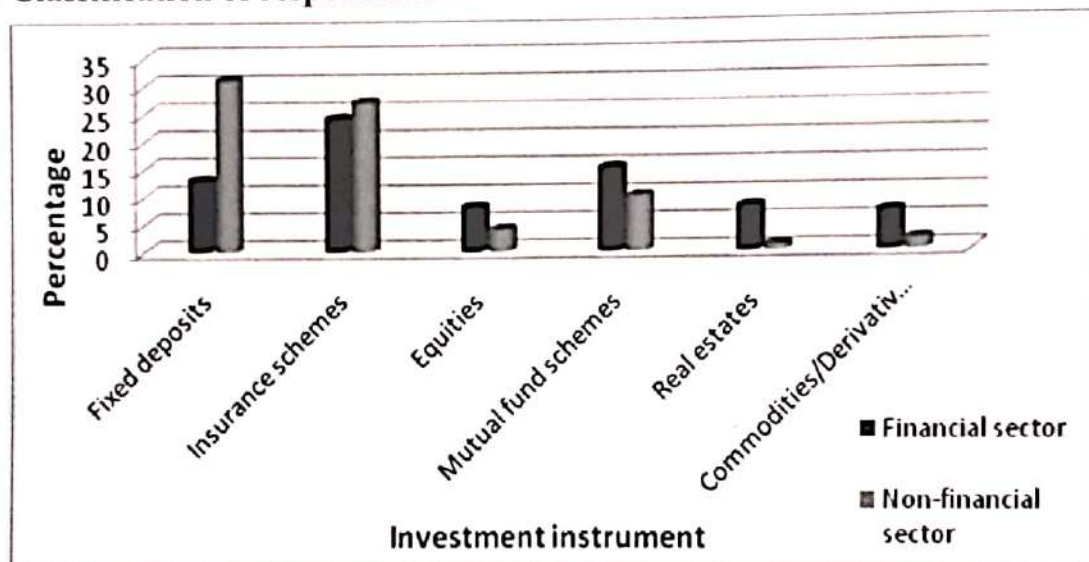
4. Investment pattern

Table 4: Classification of respondents on the basis of their investment pattern

Investment pattern	Financial sector		Non-financial sector	
	Frequency	Percentage	Frequency	Percentage
Fixed deposits	13	17%	31	41%
Insurance schemes	24	32%	27	37%
Equities	8	11%	4	5%
Mutual fund schemes	15	20%	10	13%
Real estates	8	11%	1	1%
Commodities/Derivatives	7	9%	2	3%
Total	75	100%	75	100%

Source: Primary data

Chart 4: Classification of respondents on the basis of investment their pattern



Analysis:

The above table shows that, out of total respondents of employees of financial sector, 17% of them invested in fixed deposits, 32% of them invested in insurance schemes, 11% of them invested in equities, 20% of them invested in mutual fund schemes, 11% of them invested in real estates and 9% of them invested in commodities/Derivatives.

Whereas in case of non-financial sector, 41% of them invested in fixed deposits, 37% of them invested in insurance schemes, 5% of them invested in equities, 13% of them invested in mutual fund schemes, 1% of them invested in real estates and 3% of them invested in commodities/Derivatives.

Inference:

From the above chart it can be inferred that the majority of young financial sector employees have invested in insurance schemes and non-financial sector employees have invested in fixed deposit schemes.

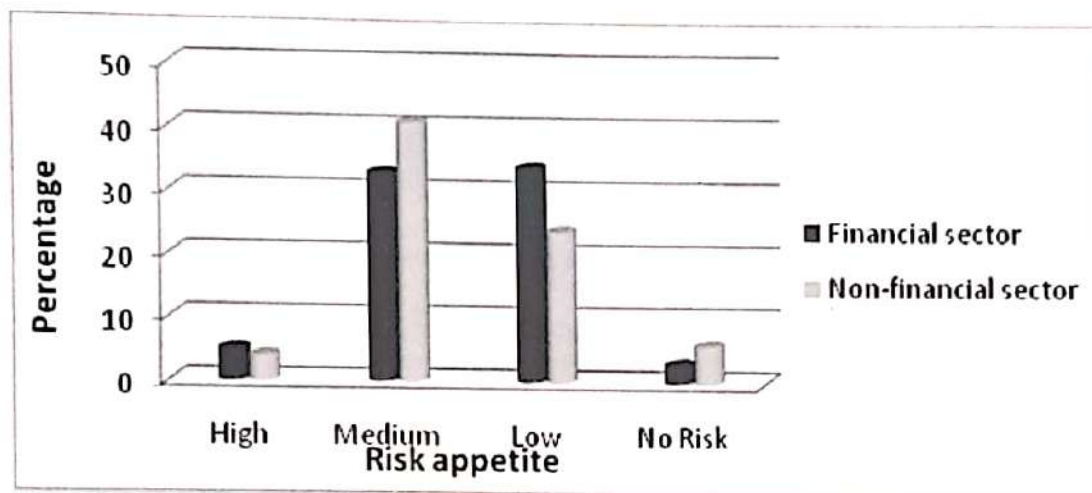
5. Level of risk appetite

Table 5: Classification of respondents on the basis of level of risk appetite

Risk appetite	Financial sector		Non-financial sector	
	Frequency	Percentage	Frequency	Percentage
High	5	7%	4	5%
Medium	33	44%	41	55%
Low	34	45%	24	32%
No Risk	3	4%	6	8%
Total	75	100%	75	100%

Source : Primary data

Chart 5: Classification of respondents on the basis of level of risk appetite



Analysis:

The above table shows that, out of total respondents of employees of financial sector, 7% of them have high risk appetite, 44% of them have medium risk appetite, 45% of them have low risk appetite and 4% of them have no risk.

Whereas in case of employees of non-financial sector, 5% of them have high risk appetite, 55% of them have medium risk appetite, 32% of them have low risk appetite and 8% of them have no risk.

Inference:

From the above analysis, it can be inferred that the majority of young financial sector employees prefer low risk investment instruments and non-financial sector employees prefer medium risk investment instruments. It clearly indicates that the young employees of both the sector are not high risk takers and going for safe investment options.

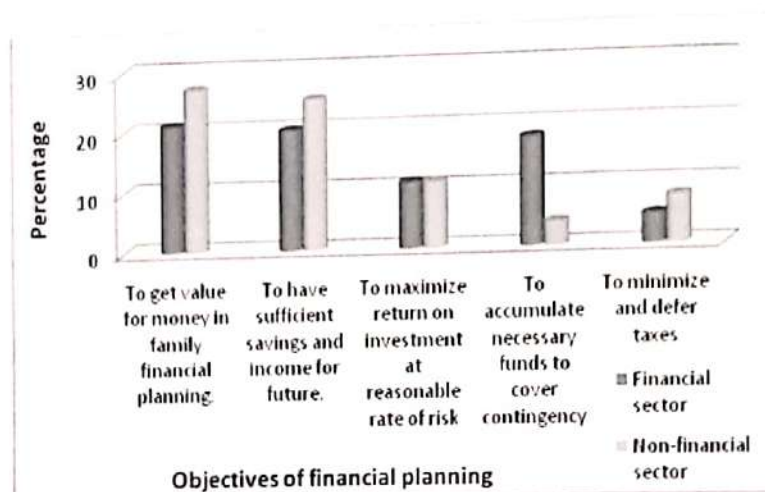
6. Objective of financial planning

Table 6: Classification of respondents on the basis of their objectives of financial planning

Objectives of financial planning	Financial sector		Non-financial sector	
	Frequency	Percentage	Frequency	Percentage
To get value for money in family financial planning	21	28%	27	36%
To have sufficient savings and income for future	20	27%	25	33%
To maximize return on investment at reasonable rate of risk	11	15%	11	15%
To accumulate necessary funds to cover contingency	18	24%	4	5%
To minimize and defer taxes	5	6%	8	11%
Total	75	100%	75	100%

Source: Primary data

Chart 6: Classification of respondents on the basis of their objective of financial planning



Analysis:

The above table shows that, out of total respondents of the employees of financial sector, the objective of financial planning, 28% of them is to get value for money in family financial planning, for 27% of them is to have sufficient savings and income for future, for 15% of them to maximize return on investment at reasonable rate of risk, for 24% of them is to accumulate necessary funds to cover contingency and 6% of them to minimize and defer taxes.

In case of employees of non-financial sector, 36% of them is to get value for money in family financial planning, for 33% of them is to have sufficient savings and income for future, for 15% of them to maximize return on investment at reasonable rate of risk, for 5% of them is to accumulate necessary funds to cover contingency and 11% of them to minimize and defer taxes.

Inference:

From the above analysis, it can be inferred that the objective of financial planning for the majority of young financial sector and non-financial sector employees is to get value for money in family financial planning and next is to have sufficient savings and income for future.

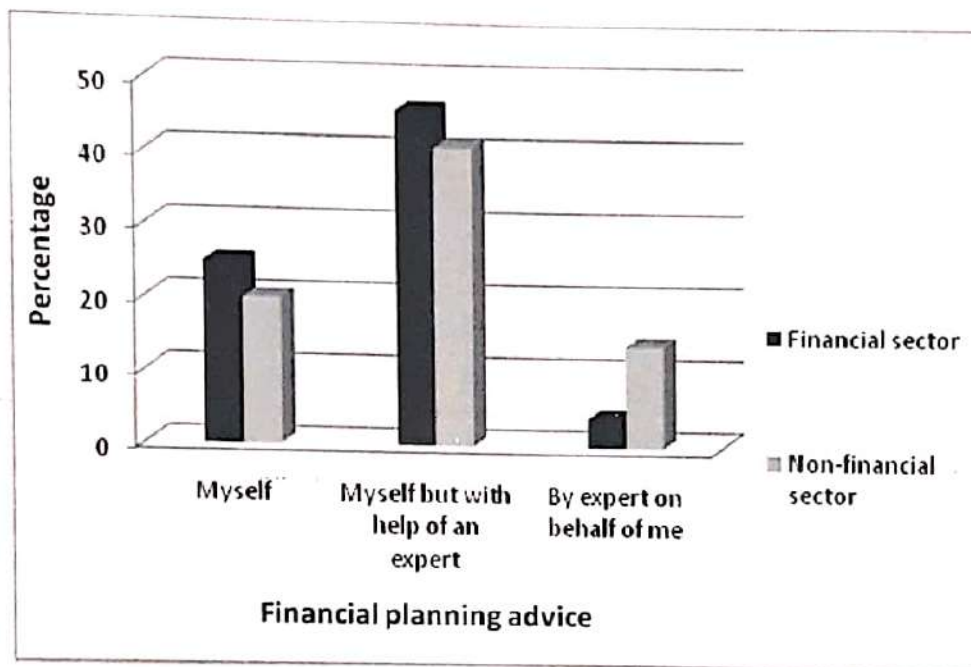
7. Financial planning

Table 7: Classification of respondents on the basis of who will do the financial planning

Financial planning	Financial sector		Non-financial sector	
	Frequency	Percentage	Frequency	Percentage
Myself	25	33%	20	27%
Myself but with help of an expert	46	62%	41	55%
By expert on behalf of me	4	5%	14	18%
Total	75	100%	75	100%

Source: Primary data

Chart 7: Classification of respondents on the basis of who will do the financial planning for respondents



Analysis:

The above table shows that, out of total respondents of employees of financial sector, 33% of them make their financial planning by themselves, 62% of them make their financial planning by themselves but with help of an expert and 5% of them said that financial planning are made on behalf of them.

Whereas in case non-financial sector, 27% of them make their financial planning by themselves, 55% of them make their financial planning by themselves but with help of an expert and 18% of them said that financial planning are made on behalf of them.

Inference:

From the above analysis, it can be inferred that the majority of young financial sector and non-financial sector employees make their financial planning by themselves but with the help of an expert.

8. Testing of Hypothesis

Hypothesis:

Ho- Financial planning behavior is independent of the sector

H1- Financial planning behavior is dependent of the sector

Contingency table

	Financial sector	Non-financial sector	Row total
Planned	47	40	87
Unplanned	28	35	63
Column total	75	75	150

Sl no	O	E	O - E	(O-E) ²	$\frac{(O - E)^2}{E}$
1	47	43	4	16	0.37209302
2	28	32	-4	16	0.5
3	40	43	-3	9	0.20930233
4	35	32	3	9	0.28125
				$\sum \frac{(O - E)^2}{E}$	1.36264535

Degree of freedom = $(r-1)(c-1) = (2-1)(2-1) = 1$

The calculated $\chi^2 = 1.36264535$. The table value of χ^2 at 5% level of significance and the degrees of freedom 1 = 3.841. Thus, $\chi_{cal}^2 < \chi_{tab}^2$, i.e. $1.36 < 3.841$. Since, the calculated χ^2 value is less than the Table value; Ho is accepted and H1 is rejected.

Inference:

The Testing of the hypothesis has reflected that the financial planning behavior of the employees is independent of the sector they belong. This implies that the employees have a general tendency to plan and their planning behavior is not dependent on the sector in which they work. This is mostly because of their income levels and also due to their personal spending habits.

Summary of Findings:

- Majority of the young employees of financial sector and non-financial sector are saving in the range of 21%-30% of their income. 54% of the young employees of financial sector and 45% of non-financial sector are saving some amount of their monthly salary but most of them are not following any time frame for saving. They are saving something every month.
- Most of the young employees of financial and non-financial sector have definite spending pattern. Their percentage of spending on different categories like food, rent, clothes, transportation and entertainment is reasonable. Majority of them are making their purchases by using both cash and credit card in financial and non-financial sector employees. Majority of them have an expense which is well within their income.
- Majority of them have bank fixed deposit for meeting contingencies like loss of job etc. Most of them are taking insurance policies just to save their income tax. Majority of the respondents in both the sectors have term plan insurance policy.
- Majority of the young employees of financial and non-financial sector require a pension amount which is equal to their salary at the time of retirement. Majority of the employees have a pension fund in financial sector and majority of the employees in non-financial sector has not though off for retirement corpus.
- Majority of the young employees of financial sector are doing tax planning beginning the year and majority of them took the help of an expert in non-financial sector are doing their tax planning. Majority of them are able to fully utilize the income tax benefits.
- The objective of investment for the majority of the young financial and non-financial sector employees is to conserve capital and generate income. Majority of the employees are investing in fixed deposits in both the sectors. Most of them are investing for medium term. They are taking their investment decision on yearly basis. Majority of them are going for safe investment proposition.
- The main objective of financial planning for most of the young financial and non-financial sector employees is to have sufficient savings and income for future but most of them are not getting enough time for managing their financial planning affairs. Majority of the employees of both the sector are agreed on the fact that they are satisfied along with the help of an expert for their financial planning decision.
- Most of the young employees of financial and non-financial sectors are not taking the financial planning very seriously. But somehow they are able to manage their financial planning effectively to some extent.
- Testing of the hypothesis has reflected that the financial planning behavior of the employees is independent of the sector they belong. This implies that the employees have a general tendency to save and their

planning behavior is not dependent on the sector in which they work.

Suggestions:

- Young employees of financial sector and non-financial sectors can save more and invest more; it's only possible during this stage of life, where responsibilities are less. For this they need to plan their financials systematically.
- Equity and equity related instruments can occupy a greater portion of the investment portfolio.
- Need for liquidity is less but still keeping in mind the era of pink slip, young financial sector and non-financial sectors employees should keep more money for contingencies.
- It can be suggested that young financial sector and non-financial sectors employees can follow a time frame for saving.
- Understanding the importance of savings and benefits of compound growth is important for them.
- Young financial sector and non-financial sectors employees can go for expert's advice for financial planning.

Conclusion:

The study about the financial planning behavior of the employees of the financial and non-financial sector reveals that the saving patterns are independent of the sector. However, the behavior does vary within the employees to some extent due to various other

external factors, not necessarily due to their sector of employment. The study observed that the young employees of financial sector have slightly higher rates of savings than the non-financial sector. This could be due to their living habits as they are in their young age and do not have considerable liabilities.

The study also suggests that the differences in the financial planning behavior are not considerable among the employees of the two sectors as they both face the same set of external and macro-economic variables. In terms of the risk taking ability of the employees of both financial and non-financial sector, the study has found out that the risk appetite among the employees of the non-financial sector is medium and that of the financial sector ranges between medium and low.

Meeting and interviewing a sizable number of young employees belonging to financial and non-financial sectors having different set of incomes, experience in the industry and so on, it's observed that most of them do not have a systematic savings from their income and majority of them save as fixed deposit. But one good thing is that majority of respondents save some portion of their income every month and most of their expenses are well within the income. Also majority of them have created emergency fund and they have a contingency plan also.

Thus, the study concludes that the financial planning behavior of the employees of financial and non-financial sector is not dependent on the sector of their employment but is affected by various external factors which result in a slight difference in their saving and investment patterns.

References

- David S. Murphy, Scott Yetmar, (2010) "Personal financial planning attitudes: a preliminary study of graduate students", *Management Research Review*, Vol. 33 Iss: 8, pp.811 – 817
- *European journal of Economics, Finance and Administrative sciences*, 2009, Vol. 3 Iss: 1, pp.45 - 56.
- *International journal of applied sciences*, 2008, Vol 1 & vol 2.
- Brown, Carol E. Nielson, Norma I. Phillips, Mary Ellen, (Jul1990) "Journal of Financial Planning", Vol. 3 Issue 3.
- Kasper, T., Grable, J. E. (2005), "Journal of Personal Finance" volumes 1, 2, & 3.
- Shannak Rifat (2009) "Measuring Knowledge Management Performance *European Journal of Scientific Research*", Vol. 35, Iss.2.
- Swapna Mirashi(2010), *I can do financial planning*, New Delhi, Academic foundation.
- Madhu sinha(2008), *Financial planning (A Ready Reckoner)*, New Delhi, McGraw Hill.

Websites:

http://www.investopedia.com/terms/f/financial_sector.asp#ixzz2NQhFoozo

<http://www.fpsb.co.in/Upload/FinancialConsumerArticle/Magazine%20March%2008-c.pdf>

<http://www.fpsb.co.in/Upload/FinancialConsumerArticle/January-March%2008-%20Co-%201.pdf>

<http://www.upperlinefinancial.com/in-the-news/>

<http://www.fpsb.co.in/scripts/FinancialArticles.aspx>

<http://profit.ndtv.com/news/your-money/article-5-steps-to-the-perfect-financial-plan-324184>

<http://www.mywealthguide.com/>

http://www.moneycontrol.com/pehlakadam/financial_planning.php

www.eurojournals.com

www.indiamoney.com

www.emeraldinsight.com

EFFECT OF SMET ON EMOTIONS AND SELF-ESTEEM -A STUDY OF MANAGERS IN A LARGE PSU IN INDIA

Rabindra Acharya*
Dr. Balaram Pradhan**
Dr. HR Nagendra***

Abstract :

Stress and strain is an integral part of modern-day managers in corporations; more so, in the current globalised world. It adversely affects their health, productivity and well-being. Managing stress in the workplace of the managers appears to be a huge challenge for many corporations. Many previous studies on Self-Management of Excessive Tension (SMET) have indicated how SMET has led to a reduction of stress in managers. A pre-post study was conducted to investigate the effect of the five days residential SMET program for the managers of a large public sector energy Organisation in India. Two psychometric instruments; Positive Affect (PA) and Negative Affect (NA) Scale (PANAS) and Self-esteem Scale were administered before and after the SMET workshop. The study showed a significant increase, in PA scores as well as self-esteem scores and NA significant decrease in NA scores of the managers. The paper concludes how the SMET workshop enhanced emotional well-being and self-esteem of the managers in the Organisation. The author also indicates a few areas of further research.

Key Word: Yoga, Manager, Positive and negative affect, Self-esteem, SMET, PANAS, ONGC

Introduction

Economic liberalization: India had played an important role in global trade over the earlier centuries. Though it had closed the borders over last few decades, the change seems to have been initiated through the process of liberalization. The economic liberalisation in India refers to ongoing economic reforms in India that started on 24 July 1991. After Independence in 1947, India adhered to socialist policies. Attempts were made to liberalise the economy in 1966 and 1985. In 1991, after India faced a balance of payments crisis, the IMF required India to undertake a series of structural economic reforms. The new neo-liberal policies included opening for international trade and investment, deregulation, initiation of privatisation, tax reforms, and inflation-controlling measures (Wikipedia, 2014).

Further, India's growth miracle has attracted worldwide attention, particularly, because this growth has been pursued to the wide ranging economic reforms introduced in the early 1990s. Many other developing countries intensified linearization during this period, but were unable to experience a similar spurt in their economic growth. One distinctive feature of India's Liberalization experience is the gradual and calibrated manner in which reforms were introduced, especially with respect to external Liberalization, be it in the financial, agricultural or manufacturing sector (UNCTAD, 2012).

In other words, Indian economy has gone through liberalization since 1990s, leading to rapid globalisation. This pace of globalisation has been picking up, leading to economic growth, infrastructure development, and

employment generation. On the other side, while meeting the high targets and the rapid pace of growth under constraints, the managers of large corporations have been facing many challenges; time management, stress, health issues of non-communicable diseases (Shah, & Patnaik, 2011).

Stress at work place: In the corporate organisations, the managers are expected to meet the challenges of profitability, growth, customer satisfaction, employee attrition and statutory compliance along with deadlines to achieve the above objectives. These challenges create stress at workplace.

The relationship between work stress and well-being has flourished over the past 20 years. One of the major advances in this literature has been the emergence of the Allostatic Load model as a central organizing theory for understanding the physiology of stress. This has been considered as health outcomes that are associated with exposure to psychosocial stressors at work and provide insight into how workplace experiences affect well-being. Within an Allostatic Load framework, with a focus on primary (e.g., stress hormones, anxiety and tension) and secondary (e.g., resting blood pressure, cholesterol, body mass index) mediators, as well as tertiary disease end points (e.g., cardiovascular disease, depression, mortality). Recommendations are provided for how future research can offer deeper insight into primary Allostatic Load processes that explain the effects of workplace experiences on mental and physical well-being (Daniel, & Christopher, 2013).

Stress, according to Robbins (2003) is an opportunity, demand, constraint, threat or challenge can create stress for an individual when the effect of the event is uncertain and important. Factors relating to the environment,

the organization, and the individual can also trigger stress (Robbins & Judge, 2007). This happens especially when s/he is unable to deal with the demands or constraints encountered. While stress at work as a concept has been in existence since long and has been widely studied, both the antecedents and consequences of stress in modern day are very different and have strong implications in ones' personal and professional lives too.

Further, if the stress continues for long duration, it affects the growth and potential development of the individual and which starts declining at both personal and professional levels. This is more so, as an individual goes against his or her own true nature of self. Eventually, the emotional upsurges take over his/her discrimination faculties and lead him towards destruction. All these leads to stress; leading to ill-health, lower the productivity, and other related issues.

As the business environments become more competitive, businesses more dynamic and organizational roles become more complex, the potential for organizational role stress increases. Varied sources of work stress have been identified by researchers. Five categories of stressors were identified by Landy and Trumbo (1976) such as excessive competition, hazardous working conditions, job insecurity, task demands and long or unusual working hours. Marshall and Cooper (1976) classified stress as intrinsic to a job or role, career growth, relationship with colleagues and Organisational climate and structure as five main clusters of work stress.

Srivastava (2009) found that the role of an employee in the organization may create conditions that cause stress for employees at work effecting the quality of work life. Such Organizational role stress has been found to be

negatively related to managerial effectiveness. Nelson and Burke (2000) suggest that a number of factors such as role ambiguity, lack of power and role conflict can also be stressful. Sharma and Devi (2008) further add that role overload, lack of senior level support, lack of group cohesiveness, inequity at workplace, role stagnation, resource inadequacy in the role, constraints on change contribute to the stress of employee.

Role of yoga in stress: Patanjali suggests a solution, that the above can be overcome by adopting "Yoga as a way of life" (Taimni, 1961). According to him, Yoga is all about controlling the thought processes of human beings (Taimni, 1961). In other words, Patanjali, many other spiritual and Yogic leaders have recommended Yoga for overcoming stress and taking care of the physical, emotional and psychological well-being of individuals. This has become imperative in the modern day life.

Pattanjali defines yoga is a technique used to calm down mental thoughts to reach the true Self (Iyenger, 1996) and skills to manage life that fosters moderation and harmony is the message of Patanjali's yoga sutra (Becker, 2000). Yoga harnesses our will, emotions, expands our power of insight, vision and analysis. Yoga is a science to harness the will, calm the mind and steady the emotions, without losing the sharpness of intellect is the key to human progress (Nagendra & Nagarathna, 1997). The integrated Yogic technique is able to accommodate and bring a harmonious work culture without expecting any return (Chakraborty, 1978).

Yoga offers us a holistic lifestyle of bliss, efficiency, emotional equipoise, mental clarity, intellectual sharpness and physical well-being. It is towards the holistic lifestyle that we should

move through SMET (Nagendra & Nagarathna, 1997).

Emotional Intelligence: To meet various opportunities and challenges in a corporate setup, more so, in a globalized world, manager is expected to have high levels of their emotional intelligence (EI) and positive emotion that helps them in the execution of work without hampering their well-being. If not adequate, there can be an opportunity to develop this EI.

Emotional Intelligence has evolved as an area in the last three decades. This has gained further significance in the context of globalization. "Emotional Intelligence is the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth" (Mayer & Salovey, 1997).

While elaborating what makes a leader, Goldman (1998), the thought leader of EI states "effective leaders possess high degrees of emotional intelligence. Along with IQ and technical skills, emotional capabilities are the entry-level requirements for executive positions. Emotional intelligence is playing an important role at the highest levels of the company, and is often linked to exceptional performance. Social skill is another key component to successful management".

Review of literature on stress management: Few previous studies on executives had shown significant improvement in EI. Specifically, an integrated yoga practice program of one month has shown significant improvement of the EI level of Managers in (Adhia, Nagendra, & Mahadevan, 2010). In another study, managers undergoing one-hours of SMET program for one month period reported significant

improvement in EI (Kumari, Nath, Nagendra, & Sharma, 2007) and EC (Kumari, Nanth, & Nagendra, 2007). In another study, the five days SMET program also showed significant improvement in EI (Ganpat & Nagendra, 2011) as well as in executive functions based on Brain wave coherence (Ganpat & Nagendra, & Muralidhar, 2011). In a recent study of managers in ONGC, a large public sector energy corporation found a significant increase in the scores of cognitive abilities, anxiety scores and in lowering the symptoms of distress in ONGC managers (Singh, Pradhan, & Nagendra, 2013).

Effect of Yoga on Positive Affect Negative Affect Scale (PANAS): An emotion is defined as a mental and physiological state associated with a wide variety of feelings, thoughts, and behaviors. It is a prime determinant of the sense of subjective well-being and appears to play a central role in many human activities as quoted by (Narasimhan, Nagendra, & Nagarathna, 2011). These emotions were grouped under positive and negative effect. Positive Affect Negative Affect Scale (PANAS) is a tool to measure the person both positive and negative emotion aspect which is very essential for anybody irrespective of professions (Watson, Clark & Tellegen, 1988). In a randomized control study design on prisoners in 7-British jail participated in either yoga program (1 class per week) or a control group for 10-week. Yoga group had increased self-reported a positive effect, and reduced stress and psychological distress compared to control group (Bilderbeck, Farias, Brazil, Jakobowitz, & Wikholm, 2013). Similarly, an open-arm pre-post study having 450 participants were undergoing integrated yoga module that consisted of asanas, pranayama, relaxation, notional correction and devotional sessions. Three hundred and twelve pre-post sets of data showed an increase in Positive Affect by 13%

and Negative Affect reduced by 47% after a week long Yoga program. Even short term open armed study can bring a significant positive change in individuals positive and negative effect (Narasimhan, Nagendra, & Nagarathna, 2011).

Effect of Yoga on self-esteem: In a Randomized Control Trial study, which consisted of 226 normal, healthy participants were undergoing a set of integrated yoga module that include asanas, pranayama, meditation, notional correction, and devotional sessions. The control group took part in physical exercises (PE) both groups had under supervision for 6-day/week, for eight weeks, 1-hour/day. The effect size for self esteem in the Yoga group was higher than control group in three domains of self-esteem. The results suggested that both groups had an influence of self esteem in different magnitude of changes (Deshpande, Nagendra, & Nagarathna, 2009).

The research gap of present study: The author found the research gap in India and the significance of exploring the impact of SMET training on ONGC participant's on their emotional health benefits. Hence the current study aimed to evaluate the effect of SMET training on Positive Affect and Negative Affect Scale (PANAS) and self-esteem.

METHODOLOGY

Keeping the above objectives in mind, the researcher selected ONGC, where the research objectives can be met fruitfully. Purposive sampling was adopted for conducting the study. ONGC is a large scale public sector undertaking in the energy sector.

Participants

In this research study, the sample size was calculated using the G*Power (a general power

analysis program) 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009). The minimum sample size need for this study was ($n = 65$) calculated based on previous study, i.e. The effect size was calculated as 0.456, fixing $\alpha = 0.05$, power = 0.95 (Narasimhan, Nagarathna & Nagendra, 2011) and But present current study consisted of seventy participants. All the participants were recruited from ONGC executive undergoing Self-Management of excessive tension (SMET) workshop at S-VYASA. Both male and female participants with the age ranging from 25 to 60 years were included in this study. Participants having multiple ailments and health related issues and women during menstruation were excluded based on general routine health check up by resident doctors. The current study was approved by the Institutional ethics committee and an informed consent form was obtained from all the participants after explaining them regarding the trial of the research.

Limitations of the study: This study was confined to ONGC; only one large PSU managers over a period of one year. Such studies could be done in other sectors with similar growth pattern such as aviation, Hospitality, education, etc. to map and mitigate stress levels among employees. Further, there was no control group and only subjective variables were measured, short term in a residential setup.

Assessment

Positive and Negative Affect Schedule (PANAS): All subjects were recorded before the start and end of the SMET workshop. Positive and negative affect schedule (PANAS). The PANAS is comprised of a total 20-item with two sub-scales 10-item each measure to assess positive and negative affect. Participants were asked to rate themselves on

the scale over past 5-day using a Likert scale from 1 ("very slightly or not at all") to 5 ("extremely"). The PANAS alpha internal consistency reliabilities are high, ranging from 0.86–0.90 for positive affect and from 0.84–0.87 for negative affect (Watson, 1988; Watson, Clark & Tellegen, 1988).

Rosenberg Self-esteem Scale: This is a self-reported scale consisted 10-item evaluates individual global feeling of self worth. The rating scale ranges from 1 (strongly agree) to 4 (strongly disagrees). It is validated and reliable for self-esteem measures (Rosenberg, 1965).

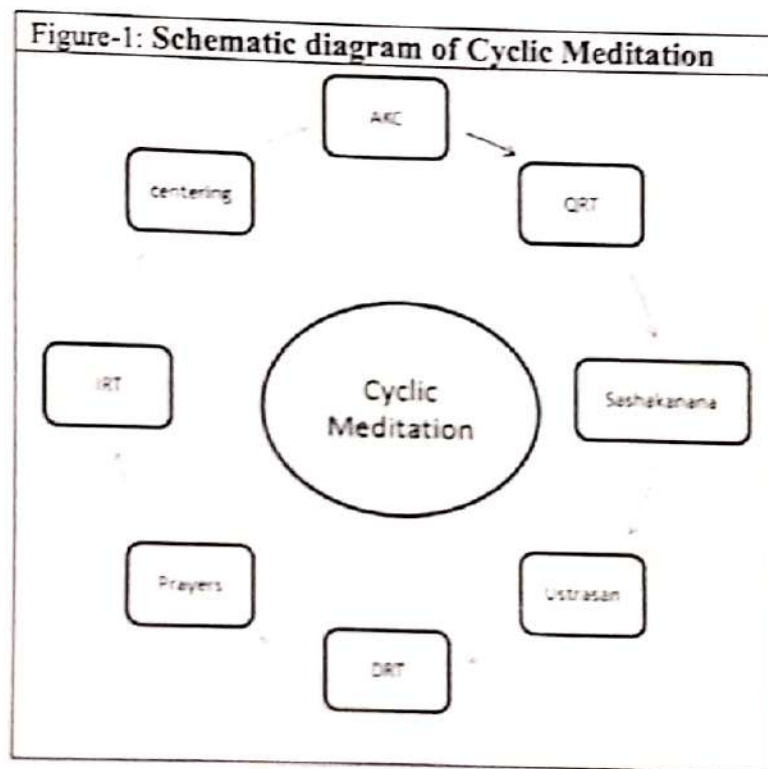
Study Design: The current study was designed as a single armed pre-post study, wherein the subjects were interviewed on the record both before and after the 5 days SMET intervention.

Intervention Adopted

SMET Intervention: SMET comprises of a set of theory. The practices (Cyclic Meditation) based on the principle of 'stimulation followed by relaxation' derived from Mandukyakarika. Cyclic Meditation (CM), consisting of a set of eight techniques practiced cyclically, is a key process in SMET, and was practiced for 30 minutes every day. CM is very different from any other form of meditation. It comprises of a set of physiological stimulations (Yogic postures) followed by relaxation techniques, i.e. The Instant Relaxation Technique (IRT), the Quick relaxation Technique (QRT) and the Deep Relaxation Technique (DRT). The CM process is given below in a pictorial format and more details about the structure of the SMET program are given in Table-1. As explained above, the SMET has multiple component/dimensions. The details of SMET are provided in Figure-1.

Table 1: SMET Program details

SMET THEORY	SMET Practices
Theory 1. Introduction to SMET 2. Concept and Physiology of Stress 3. Stress and it's Release 4. Executive Growth 5. Group Dynamic 6. SMET and Yoga Therapy Research 7. Integrated Approach of Yoga therapy 8. <i>Pranayama</i> and Health 9. Yoga for Mastery over Emotion (<i>Bhakti</i> Yoga) 10. Action in Relaxation (Karma Yoga) 11. Concept and Basis of Yoga (Happiness Analysis)	Practice session Cyclic Meditation



Results

Data were analyzed using paired 't' test to assess the effect of SMET intervention for five days.

PANAS

It was observed that the scores of negative affect were lower ($p < 0.001$) and positive scores were found to be higher ($p < 0.01$) following the SMET intervention of five days. The

significant change in the scores is quoted in Table-2.

Self-esteem

It was evident that the self esteem scores was higher ($p < 0.001$) following the SMET intervention. The significant changes in Self-esteem scores were reflected in Table-2.

Table-2: The Pre & Post scores of positive & negative effect, self reported self esteem is given in the form of Mean±SD.

n=70	PRE	POST	Percentage changes	P values
Positive affect	37.4±6.35	40.31±5.97***	-7.78	P<0.001
Negative affect	14.13±6.09	12.54±4.26**	11.25	P=0.004
Difference of (Positive-Negative) affect	23.27±9.10	27.22±8.21	-19.34	P<0.001
Self-esteem	21.79±4.05	23.3±4.52***	-6.93	P<0.001

Legend: ***p< 0.001, **p<0.01, comparing Pre & Post scores of the above mentioned variables by using paired 't'-test.

Discussions

The present study found there were improvements in positive affect, self-esteem score and decrement negative affect scores after SMET training program.

Our findings are supported by the previous scientific finding on the beneficial effects of yoga on emotional effect measured using PANAS (Bildnerbeck, Farias, Brazil, Jakobowitz, & Wikholm, 2013; Narasimhan, Nagendra, & Nagarathna, 2011) and self-esteem (Deshpande, Nagendra, & Nagarathna, 2009). The current findings also substantiate the a few studies conducted in targeted ONGC managers, where SMET has been shown positive improvements in EI (Adhia, 2010, Kumari, Nath, Nagendra, & Sharma, 2007), recent mental status symptoms somatisation, anxiety, social dysfunction, and depression (Ganpat & Nagendra, 2011).

Mechanisms: The component of SMET consisted of cyclic meditation, lecture sessions, and talks on Indian Psychology of Gita. The effect of Cyclic meditation immediately after a single session found a reduction in oxygen consumption (Sarang & Telles, 2006), increase high frequency component of HRV (Patra &

Telles, 2010); improve the cognitive domains measured by memory (Subramanya & Telles, 2009), attention task (Sarang & Telles, 2007; Subramanya & Telles, 2009), P300 auditory oddball task (Sarang & Telles, 2006). Further quality of sleep was enhanced in subsequent night on day practice day of CM (Patra & Telles, 2009). This suggests that CM which is a key practice of SMET practice could bring about change not only at the level of gross level but also at the tissue level.

Major Findings and Conclusions: SMET program had enhanced the psychological well-being of ONGC participants in a residential setup where in they were not exposed to any work related stress. SMET appears to be a very powerful tool, with lesser investments (time, money, and resources) resulting in high impact outcomes of positive affect, lower negative affect, higher self-esteem. This study was first of its kind where in the strong psychological tools like PANAS, self-esteem was studied in a considerably good sample size.

Applications of the study: This study has a wide range of applied value. SMET practice can be introduced in an industrial setup to ensure better health and to remain uninfected with stress at the workplace.

Suggestions for future: In the future a large sample size with a follow up and assessment of objective variables needs to be studied to explore the effectiveness of SMET in the industrial set up where the managers really face the challenge of work and targets.

In summary five days SMET program had a positive influence on positive affect scores, reducing negative affect scores and enhancing self-esteem scores of ONGC participants.

Reference

- Adhia, H., Nagendra, H.R., & Mahadevan, B. (2010). Impact of adoption of yoga way of life on the emotional intelligence of managers. *IIMB Managment Review*, 22, 32-41.
- Shah, A., & Patnaik, I. (2011). India's financial globalisation. <http://www.imf.org/external/pubs/ft/wp/2011/wp1107.pdf>. India's financial globalisation.
- Becker, I. (2000). Uses of yoga in psychiatry and medicine. In: Muskin PR, editor. *Complementary and alternative medicine and psychiatry*. Washington DC: American Psychiatric Press, pp. 107-45.
- Bilderbeck, A. C., Farias, M., Brazil, I. A., Jakobowitz, S., & Wikholm, C. (2013). Participation in a 10-week course of yoga improves behavioural control and decreases psychological distress in a prison population. *J Psychiatr Res*, 47(10), 1438-1445.
- Chakraborty, S. K. (1987). *Managerial effectiveness and quality of work life: Indian insights*, New Delhi: Tata McGraw-Hill.
- Daniel, C., G. & Christopher, C.R. (2013). *Work Stress and Employee Health: A Multidisciplinary Review*. *Journal of Management*, 39: 1085-1122.
- Deshpande, S., Nagendra, H. R., & Nagarathna, R. (2009). A randomized control trial of the effect of yoga on Gunas (personality) and Self esteem in normal healthy volunteers. *Int J Yoga*, 2(1), 13-21.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. *Behav Res Methods*, 41(4), 1149-1160.
- Ganpat, T. S., & Nagendra, H. R. (2011). Integrated yoga therapy for improving mental health in managers. *Industrial Psychiatric journal*, 20(1), 45-48.
- Ganpat, T. S., & Nagendra, H. R. (2011). Yoga therapy for developing emotional intelligence in mid-life managers. *J Midlife Health*, 2(1), 28-30.
- Ganpat, T. S., Nagendra, H. R. & Muralidhar, K. (2011). Effect of Yoga on brain wave coherence in executive. *Indian J Physiol Pharmacol*, 55(4), 304-308.
- Goleman, D. (1998). What makes a leader, *Harvard Business Review*, pp. 82-91. as seen on the http://www.unpd.org/content/dam/Samoa/docs/UNPD_WS_TLDP2_What_makes_a_leader_PDF.

- Iyengar, B. K. (1996). *Light on yoga*. (1996). New York: Schocken Books.
- Kumari, S., N., Nath, N. .C. B., Nagendra, H.R., & Sharma, S. (2007). Effectiveness of SMET programme with Respect to Emotional Well-being of Managers -An Empirical Study. *Vilakshan, XIMB Journal of Management*, 4:165-173.
- Kumari, S., N., Nath., N. C. B., & Nagendra, H.R.(2007). Enhancing Emotional Competence among Managers through SMET. *National Academy of Psychology, India.*, 52(2), 171-173.
- Landy, F.J. & Trumbo, D.A. (1976). *Psychology of Work Behaviour*. USA, Dorsey Press.
- Marshall, J. & Cooper, C. L. (1979). *Executive under pressure: A psychological study*. New York: Praeger Publishers.
- Mayer, J., & Salovey, P. (1997). 'Ability Model of Emotional Intelligence', available on-line: <http://emotionaliq.com/> (accessed 17 November 2003).
- Nagendra, H. R., & Nagarathna, R. (1997). *New perspectives in stress management*. Bangalore, India: Swami Vivekananda Yoga Publications. , 61(5), 386-391.
- Narasimhan, L., Nagarathna, R., & Nagendra, H.R. (2011). Effect of integrated yogic practices on positive and negative emotions in healthy adults. *Int J Yoga*, 4(1), 13-19.
- Nelson, D. L. & Burke, R. J. (2000). *Women Executives: Health, Stress and Success*, *Academy of Management Executive*, 14, pp.107-21. on-line: <http://emotionaliq.com/> (accessed 17 November 2003).
- Patra, S., & Telles, S. (2009). Positive impact of cyclic meditation on subsequent sleep. *MED Sci Monit*, 15 (7), 375-381.
- Patra, S., & Telles, S. (2010). Heart rate variability during sleep following the practice of cyclic meditation and supine rest. 35(2): 135-104.
- Robbins, S. P., and Judge, T. A. (2007). *Organizational behavior*. 12th edition. New Jersey: Pearson Education.
- Robbins, S.P. (2003). *Organisational Behavior*, 10th ed., Prentice Hall, New Delhi 47.
- Rosenberg, M. & Princeton, N.J. (1965): Princeton University Press; 1965. *Society and the adolescent self-image*.
- Sarang, P. S., & Telles, S. (2006). Oxygen consumption and respiration during and after two yoga relaxation techniques. *Appl Psychophysiol Biofeedback*, 31(2), 143-153.
- Sarang, S. P., & Telles, S. (2006). Changes in p300 following two yoga-based relaxation techniques. *Int J Neurosci*, 116(12), 1419-1430.
- Sarang, S. P., & Telles, S. (2007). Immediate effect of two yoga-based relaxation techniques on performance in a

letter-cancellation task. *Percept Mot Skills*, 105(2), 379-385.

- Sharma, J. & Devi, A. (2011). Role stress among employees: An empirical study of commercial banks, *Gurukul Business Review* Vol. 7, pp. 53-61.
- Singh S.N., Pradhan, B., & Nagendra, H.R. (2013). Effect of five days of self management of excessive (SMET) residential workshop on top line days. Ph D. Thesis.
- Srivastava, A.K. (2006). Role stress in the public sector: An empirical study, *Managment and Change*, 10(1)pp. 1-10.
- Subramanya, P., & Telles, S. (2009a). Effect of two yoga-based relaxation techniques on memory scores and state anxiety. *Biopsychosoc Med*, 3, 8.
- Subramanya, P., & Telles, S. (2009b). Performance on psychomotor tasks following two yoga-based relaxation techniques. *Percept Mot Skills*, 109(2), 563-576.
- Taimni, I. K. (1961). *The Science of Yoga*. The Theosophical Publishing House, India: Madras
- UNCTAD. (2012). Annual report. pp.22. http://www.unctad.org/en/PublicationsLibrary/dom2013d1_en.pdf.
- Watson, D. (1988). Intra-individual and inter-individual analyses of positive and negative affect: their relation to health complaints, perceived stress, and daily

activities. *J Pers Soc Psychol*, 54(6), 1020-1030.

- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *J Pers Soc Psychol*, 54(6), 1063-1070.
- Wikipedia (2014), "The free encyclopedia, Economic liberalisation in India", as seen on the http://en.wikipedia.org/wiki/Economic_liberalisation_in_India.



RASHTREEYA SIKSHANA SAMITHI TRUST

R V INSTITUTE OF MANAGEMENT

CA - 17, 36th Cross, 26th Main, 4th 'T' Block, Jayanagar, Bangalore - 560 041.
Tel : 080-26547048 Fax : 080-26654920 E mail: contact@rvim.in Website: www.rvim.in

MBA PROGRAMME

Two Years Full Time Day Programme

(Affiliated to Bangalore University, Recognised by Govt. of Karnataka & Approved by AICTE)

R V Institute of Management was started in the Academic year 1999 - 2000, with a purpose of providing quality Management education to aspiring youngsters. Our aim is to educate & train potential future managers to develop capability to lead business enterprises effectively in reaching their corporate goals, and thus set a benchmark for others to emulate.

R V Institute of Management is one of the 25 leading educational institutions of national & international repute, managed by Rashtriya Sikshana Samithi Trust, which is spearheading the cause of education in various fields since the last 75 years. They range from Primary to General Education, Dental Sciences, Physiotherapy, Engineering, Teacher Education, Computers and Institute for Management Education, etc.



MBA @ RVIM - A Perfect beginning to explore infinite opportunities in the World of Business
Salient Features



- Excellent infrastructure
- Highly qualified & experienced faculty with Industry exposure
- State-of-the-art Computer Lab & Digital Library
- Active placement cell with career counseling & Training facility
- Well-stocked library with books, magazines, journals, etc
- Industry - Academia interactions
- Personality Development Programmes
- Collaboration with Foreign Universities for Exchange Programmes
- Facility for learning Foreign languages
- Partnership with leading institutions for value added Programmes
- Yoga & Meditation classes for stress free learning



A Premier Institute in Management Education, Training, Research and Consultancy