

A STUDY OF BEHAVIOURAL FINANCE ON INVESTMENT DECISIONS AMONG INDIVIDUAL INVESTORS: EFFECT OF DEMOGRAPHY, INVESTORS PERSONALITIES AND INVESTMENT CHOICES IN BENGALURU.

Ganesh Babu O.K.* Dr. Patel. Nagaraj Goud**

Abstract

India, during early 1990 has opened up itself to the World. The liberalization, privatization and globalization have brought impressive GDP growth. The major contributor to this was the investors. Therefore the Government thought of attracting more investors. The Indian Capital markets started receiving more attention from the sound investors from all over the globe, especially after 2003. Here there is a necessity to study How, Why, When, Where and what amount is invested by the investors.

Behavioral finance is the emerging trend and an additional tool in understanding the financial decision making process of the investors. It is the psychology and emotions of the investors involved in economic decision making. It states that individuals are not rational and also not stupid. They are normal persons and run by various biases. The evaluation of risk and return on investment and investors' psychology and belief and the selection of investment and decision making may be effected by more numbers of factors such as demography and personality.

In this paper we study the effect of demographical variables, investor's personalities on instrument of investment among individual investors in Bengaluru city. Frequency analysis and various statistical tools were used to describe the variables. Only that respondent who has invested in at least any one of the investment instrument is selected for the study.

Keywords: Behavioral finance, investors' psychology, investors' behavior, demography and personality, instrument of investment.

*Associate Professor, H.K.E. Society's Sree Veerendra Patil Degree College, Sadashivanagar, Bangalore -80

**Associate Professor, Vijaya College, Jayanagar, Bengaluru- 560011

Introduction

The Economic liberalization and policies that were set forth during the early 1990's has brought in extraordinary transformation in the way people seek to invest, especially in India. Most of the transactions as far as Indian stock markets are concerned are divided between Bombay Stock Exchange (BSE) and National Stock Exchange (NSE). Both the exchanges list a majority of India's publicly listed companies. In the BSE, the SENSEX includes 30 firms listed on the BSE, representing around 45 percent of the Index's free float market capitalization. Similarly, the other index NIFTY of the NSE has 50 firms listed representing about 62 percent of its free float market capitalization. After the liberalization, privatization and globalization kicked in; there has been lot of traction among the investors. People who were otherwise investing on conservative mode, started to invest directly with the help of VSAT and other technologies.

As more number of investors started to pitch in, so also the level of complexity and subsequent initial public offers (IPO's). The entire last decade witnessed an increase of Gross domestic product (GDP) year on year growing at an average of 6-7 percent, quite decent considering the global average of 2.4 percent. This has resulted along with open economy, exciting opportunities in terms of capital, information, people exchanges and trading of goods and services. Disposable surplus income for the very first time has seen a surge, along with the consumerism, that was new to India. Investment instruments were becoming more complex and exotic beyond the reach of common man. Yet, the lure of stock market has simply kept increasing over the past 10 to 15 years. Because of increasing interest and demand to invest in capital markets, there has also been scams and anomalies associated with stock markets. Nowadays, investments and financial decisions have ceased to be simply a calculation of numbers, but must be factored in with the human perspective that seems to almost, always drive the markets. There are some serious, yet fundamental questions that need to be dwelled upon, such as sudden increase in price of assets, the choice making decisions of investors and how rational are they, when such choices are made. (Khusbu Agarwal, 2012). This brings us to the important study of these days, behavioral finance. Behavioral finance is commonly defined as application of psychological aspects to financial decision making process. The concept is an extension and to a large extent runs contrary to the “standard finance” which is based on the notion of “Homo Economicus” or “Rational economic man”. The theory of rational man in a simple format explains human behavior from a single dimension that

assumes a principle of perfect self interest. For all practical purposes, we find that people are neither perfectly rational nor perfectly irrational. (Meenu Varma, 2008). The advocates of behavioral finance are of a firm opinion that individuals while investing in the capital markets are not always rational as we would normally expect them to be. There are behavioral and emotional biases to which they are subjected to in the course of their investment. Subsequently, the investment decisions seem to be dominated by ones desires, goals, prejudices and emotions. (Mittal & Vyas, 2009).

This paper aims to investigate into the various demographic factors and their influence on the choice of investment, bringing in the nature of persons who are investing and their personality. The outcome of the research can go a long way in supporting the basic model where the choice of investment instrument and the type of personality, that is the nature of persons who invest, are positively correlated with one another. The results of which can support the market observers, stock analyst and wealth advisors in interacting with their client and suggesting suitable avenues for investment, depending on the personality.

Review of Literature

Many researchers have worked on the topic Behavioral finance and also on various allied topics. In a study made by Meenu Verma titled “Wealth management and Behavioral Finance: The effect of Demographics and personality in investment choice among individual investors” She points that investment choice by the investors depends upon the various demographic variables and personality of the investors. She has examined the demographic variables such as Gender, Income, Age, Occupation, education and personality types such as conservative, medium conservative, moderate, medium aggrieve and aggressive. This study was conducted in Jaipur, Rajasthan. The author opined that this study may not be suitable for the other states. A study by Raluca Beghiu Qawi in 2010 titled, “Behavioral Finance: Is Investor Psyche driving market performance?” This Article describes the psychology based theories to explain stock market anomalies. The author presents the findings in the area of behavioral finance related to herding, behavior, thought contagion, risk aversion, investor sentiment among others. The Author feels that the disparity between the scientific rational thought and the subjective behavior-driven decision process remains unsolved until CAPM and other formulas are redrafted to include the human element in the investment decision making

process.

A study conducted by Hershey and Schoemaker in 1980 titled “Risk taking and problem context in the Domain of losses: An Expected utility Analysis” tells that men are less risk averse than the women when it comes to gambling.

A study conducted by Hudgen and Fatkin in 1985 comes out that under the condition of risk male and females are equally good in taking decisions.

A study conducted by Michael M. Pompish, CFA in October, 2008 titled “Using Behavioral Investor types to build better relationship with your clients” The Author identifies four types of Investor based on their behavior. This top-down method of identifying a client's behavioral helps the investment professional to give suggestions.

The Four types of behavioral investors are

1. Passive Preservers: These investors are very emotional, passive and take no risk or very less risk. These investors are into preserving wealth rather than growing the wealth.
2. Friendly followers: These investors are passive, Cognitive and take low to medium risks. These investors will not take their own decision they follow their friend or colleague for their investment decisions.
3. Independent Individualist: These investors are active, Cognitive and takes medium to high level of risk. These investors are independent thinkers and strong-willed.
4. Active accumulator: These are active, Emotional and high risk takers. These clients will have entrepreneur ability.

Harlow and Keith in 1990 studied when men asked to choices in an experimental market environment, they preferred more risk in betting, lotteries and auctions.

A study conducted by K. Parimala Kanthi and M. Ashok Kumar in September 2013 Titled “Holding behavior of individual investors in Coimbatore district” The Authors' opinion is that the culture of the country may go a long way in the capital development of that

country. Therefore the investors' behavior towards the risk and return on the investment changes according to their behaviors.

A study conducted by Giridhari Mohanta and Sathya Swaroop Debasish in March, 2011 titled “A Study on Investment Preferences among Urban Investors In Orissa” This study highlights that an investor takes into account various factors while investing on share and stocks. They are also influenced by social, psychological factors. The Author finds that the gender, marital status, Education, age, the living location, contact with the financial advisors etc matter while decisions are taken on investment. The Author observes that the male investors are more efficient in investment decisions when compared to their female counterpart.

A study conducted by Whitney Tilson in November 2005 “Applying Behavioural Finance to Value Investing” The author explains Mental accounting, Emotional connections, Fear of uncertainty, Embracing Certainty, Vividness bias, Worrying about what others will think, Paralysis resulting from too many choices, the near miss phenomenon, Status quo bias and endowment effect, Self-interest bias Regret aversion and others along with the theory of Behavioral finance.

A study conducted by Khushbu Agrawal in 2012 “A Conceptual Framework of Behavioural Biases in Finance.” Khushbu Agrawal is of the opinion that the behavior finance and the investors' decisions are many a time driven by time and other mental factors. The paucity of time to collect huge information in less time also influences decision making along with other factors.

In this paper, the demographic variables, personality factors and investment choices among individual investors in Bangalore are studied. Research Methodology

Objective of the study

To study the effect of demographic variables, investors personalities and investment choice on the investment decision among the individual investors.

Methodology of the study

The study is based on descriptive research design, particularly survey method. Primary data was collected from the respondents. A structured questionnaire was prepared to

collect data from the respondents. The Likert scale was used. Non probabilistic sampling with a mix of judgmental and convenient sampling is used in this study. The respondents included fixed income group, Businessman, House wife, Young persons, Elder persons, experienced investors, Student and others from the city of Bengaluru.

Hypotheses

The following hypotheses were formulated to study whether the choice of instrument of investment depends upon variables such as gender, income, investors' personality.

H1: There is no significant difference between the gender and choice of instrument for investment.

H2: There is no significant relationship between income of the investors and the choice of instruments for investment.

H3: there is no significant relationship between the personality types and choice of investments and instruments.

The hypotheses were tested at 5% level of significance. The independent variables of the study are Gender, Income and Personality. The dependent variables are the various investment instruments. The various investment instruments are Equity, Debenture, Bond, Mutual Funds, Commodities, and Bullion etc. The investor personality refers to the investors' trait.

Table - 2 and Table- 3: Gender and Choice of Instrument for Investment

Null Hypothesis (H0): There is no significant difference between the gender and choice of instrument for investment.

Alternate Hypothesis (H1): There is significant difference between the gender and choice of instrument for investment

Table 2 : Descriptive Statistics: Choice of Investment Avenues						
	N	Minimum	Maximum	Mean	Std. Deviation	Rank
Equity	55	1.00	7.00	1.9455	1.88972	1
Debenture	55	2.00	7.00	4.2727	1.29750	4
Bond	55	3.00	6.00	5.0545	.97026	5
MF	55	2.00	6.00	3.0727	.99730	2
Commodities	55	1.00	7.00	5.6909	2.18473	7
FD	55	1.00	7.00	3.4000	2.05120	3
Bullion	55	1.00	6.00	4.5455	1.54941	6

Table 3: Mann Whitney U Test Statistics for Gender							
	Equity	Debenture	Bonds	Mutual Funds	Commodities	Fixed Deposits	Bullion
Mann-Whitney	259.500	270.000	281.500	292.000	334.000	275.000	253.000
Wilcoxon W	469.500	480.000	491.500	502.000	544.000	485.00	883.500
Z	2.194	-1.452	-1.270	-1.070	-0.358	-1.335	1.774
Exact Significance (two tailed)	.037*	0.149	0.224	0.297	0.764	0.184	0.074
Note: Grouping variable: Gender* implies significant at 5% Significance level							

Interpretation:

From the above table it is amply clear that the differences are significant only for the equities and other instruments were not found to be significant. Males and females do vary significantly regarding equities. Other instruments such as debentures, bonds, mutual funds, fixed deposits, commodities and bullion do not carry significant difference between male and female. Hence we reject the null hypothesis.

Table- 4: Income and Choice of Instrument for Investment

Null Hypothesis (H0): There is no significant relationship between incomes of the investors and the choice of instruments for investment.

Alternate Hypothesis (H1): There is significant relationship between incomes of the investors and the choice of instruments for investment.

Table 4:Kruskal-Wallis Test Statistics fo Income							
	Equity	De b	Bonds	MF	CO	FD	Bullio n
Chi-Square	0.944	2.310	5.399	3.800	7.324	3.323	2.917
Degrees of Freedom	3	3	3	3	3	3	3
Asymptotic Significance	0.815	0.511	0.145	0.284	.062	0.344	0.405
Note: Grouping variable annual income.*Significant at5% significance level.							

Interpretation

The results indicate that, people from different income groups do not vary significantly when it comes to the choice of instrument to invest. Though it runs contrary to the previous literature, since the sample size is small, the relationship may appear to be weak. However from the table above, we can infer that when it comes to commodities, the income tends to play a bigger role when compared to the other avenues of investment.

Personality type and choice of Instrument for Investment Null Hypothesis (H0):

There is no significant relationship between the personality types and choice of investments and instruments.

Alternate Hypothesis (H1):

There is significant relationship between the personality types and choice of investments and instruments

Table 5: Kruskal-Wallis Test Statistics for Personality Type							
	Equity	Deb	Bonds	MF	CO	FD	Bullion
Chi-Square	0.803	7.591	5.758	3.074	5.033	3.936	4.617
Degrees of Freedom	3	3	3	3	3	3	3
Asymptotic Significance	0.669	0.022*	0.056	0.215	0.081	0.140	0.099

Note: Grouping variable annual income.*Significantat5%significance level.

Interpretation:

The above table indicates that except for debentures, the other instruments really do not have a significant relationship with the personality types, that are described here based on the Bailford et al model viz. Individualistic, Celebrities, Guardians and Adventurers. However as discussed earlier, we must admit that the sample size is small to come to broad conclusions and also the sampling technique used was non probability judgement sampling. Thus by increasing the sample size we can see significant improvement in the degree of relationship between the two variables.

1. Limitations of the study:

1. In this study the author tried to capture the behavior of the investors in the current market condition. The investment choices and preference may change in future.
2. The study was conducted in less than 25 day which is a very short period of time.
3. The size of the sample is 55. Therefore it is very difficult to generalize and apply the result for the entire active market. The results may change if the sample size is increased.
4. The respondents are from Bangalore alone. Bangalore is a metropolitan city with people from various walks of life. The result may vary in other parts of India.

Findings and Conclusion

1. 63.6% of the respondents are males.
2. 43.6% respondents are above 50 years of age and 20% of the respondents are in between 41-50 years of age.
3. 45.5% of the respondents have less than one year of experience, 38.2% of the respondents are experienced between one to five years and 16.4% of the respondents have more than years of experience.

4. Salaried class included 45.5% of the respondents where as 38% of the respondents are self employed.
5. 43.6% of the respondents are Post Graduate and 38.2% of the respondents are Graduate.
6. From the study it is clear that when it comes to investment in equities, males and females have different perceptions. Talking about other investment instruments there are no much differences between the males and females, such as investment Bonds, mutual funds etc
7. Talking about the choices of investment instruments and income level of the people, it is surprising to note that it does not make much difference. Only commodity market is largely effect by the income of the people. All other investment instruments have almost the same response from the entire income groups. This may be due to the small sample size of 55 that have been considered for the study.
8. It is observed that personality and decisions have significant difference. In this study it is established that there is a significant difference in personality type and choice of Debenture. But for other investment instruments the difference is not very significant. It may be due to the sample size and judgement and convenience sampling.

References and Bibliography

1. Meenu, Verma (2008), "Wealth Management and Behavioral Finance: The Effect of Demographics and Personality on Investment Choice among Indian Investors", The Journal of Behavioral Finance.
2. Raluca Bighiu Qawi (2010) "Behavioural Finance: Is Investor Psyche driving market performance?" The IUP Journal of behavioral Finance 7(4)
3. Michael M. Pompish, CFA (October, 2008), "Using Behavioural Investor types o build better relationship with your clients". Journal of financial planning.
4. Giridhari Mohanta Dr. Sathya Swaroop Debasish (March, 2011), "a study on investment preferences among urban investors in orissa" Prerana Journal of Management thought and practice.
5. Whitney Tilson (November, 2005), "applying behavioural finance to value investing" Journal of Financial Economics 49 283-306
6. Khushbu Agrawal (2012), "a conceptual framework of behavioural biases in finance." The IUP Journal of Behavioural Finance.
7. Byrnes J, Miller D and Schafer W (1999), "Gender Differences in Risk Taking: A Meta-analysis", Psychological Bulletin, 125(3) pp. 367-83.

8. Dwyer Peggy D, Gilkeson James H and List John A (2002), "Gender Differences in Revealed Risk Taking: Evidence from Mutual Fund Investors", *Economic Letters*, 76 pp. 151-158.
9. Eckel Catherine C and Grossman Philip J (2003), "Men, Women and Risk Aversion: Experimental Evidence", Forthcoming in the *Handbook of Experimental Economics Results*.
10. Embrey Lori L and Fox Jonathan J (1997), "Gender Differences in the Investment Decision-Making Process", *Financial Counseling and Planning*, 8(2) pp. 33- 39.
11. Filbeck G, Hafield P and Horvath P (2005), "Risk Aversion and Personality Type", *Journal of Behavioral Finance*, 6(4) pp. 170-180.
12. Harlow W V and Keith Brown (1990), "Understanding and Assessing Financial Risk Tolerance: A Biological Perspective", *Financial Analysts Journal*, Vol. 46, pp. 50-62.
13. Hershey J and Schoemaker P (1980), "Risk Taking and Problem Context in the Domain of Losses: An Expected Utility Analysis", *Journal of Risk and Insurance*, 47(1), pp. 111-132.
14. Hudgens Gerald A and Linda Torsani Fatkin (1985), "Sex Differences in Risk Taking: Repeated Sessions on a Computer-Simulated Task", *The Journal of Psychology*, 119(3), pp. 197-206.
15. Hui Wang and Hanna Sherman D (1997), "Does Risk Tolerance Decrease with Age?", *Financial Counseling and Planning*, 8,(2), pp. 27-31.
16. Jianakoplos N and Bernasek A (1998), "Are Women More Risk Averse?", *Economic Enquiry*, 36(4), pp. 620-630. Powell M and Ansic D (1997), "Gender Differences in Risk Behavior in Financial Decision Making: An Experimental Analysis", *Journal of Economic Psychology*, 18(6), pp. 605-627.
17. Riley W B and Chow K V (1992), "Asset Allocation and Individual Risk Aversion", *Financial Analysts Journal*, 48(6), 32-37.
18. Schooley Diane K and Debra Drecnik Worden (2003), "Generation X: Understanding Their Risk Tolerance and Investment Behavior", *Journal of Financial Planning*, The Financial Planning Association, September 2003-Article 8.
19. Sherman D Hanna and Suzanne Lindamood (2005), "Risk Tolerance of Married Couples", Research paper presented at The Academy of Financial Services Meeting.