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The Impact of Behavioural Factors on Equity Investment Decisions: An Empirical Study

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ABSTRACT

Traditional finance assumes that investors are rational and will always seek to maximize their benefits. If this premise is true for all the investors, it is safe to assume that the market is efficient, with market price reflecting all available information. Investors have access to all information and will take rational decisions about their investments. However, it is now clear that markets are not always efficient as investors are not always rational. Retail investors are vulnerable to multiple influences, biases, and emotional reasons that can influence their judgment. The Indian stock market is no exception to this reality. The Indian investor faces several challenges that he must factor into his decision-sluggish economy, lack of political will to speed up reforms or counter the steep price rise as well as his own psychological tolerance to perceived risk, negative emotions of fear and depression due to a loss, the desire to get rich and wealthy et al. In order to identify which factors are considered by them in their equity decisions, and their level of importance, an attempt is made to examine the views of equity individual investors through a structured questionnaire.
A structured questionnaire was prepared to study these behavioural factors, their perceived importance and usage in making investment decisions. The respondents are individual equity investors of Bangalore city. The empirical data was analysed using suitable statistical tools .
The study sheds light on select behavioural factors like herd behaviour, over confidence, loss aversion, anchoring et al., and their importance in equity decision making.

Keywords: Behavioural factors, individual investors, equity, investment decisions.

INTRODUCTION:

For many decades, researches in the field of finance were based on the assumption of rational expectations as suggested in Capital Asset Pricing Model, Efficient Market Hypothesis and other theories. However, recent research findings have marked a few anomalies in the above theories under practical circumstances and researchers have tried to provide explanations to these anomalies. This has paved the way for a new field in finance , namely, Behavioural Finance.
Behavioural Finance has gained momentum in the present scenario. Humans become confused when there is a lot of uncertainty regarding investment decisions. The assumptions underlying Behavioural Finance state that people are more often irrational and therefore, take decisions which are not logical . With the application of psychology and other behavioural theories, Behavioural Finance explains such irrational decisions.
David Dreman, Robert Shiller, Hersh Shefrin (2000), Warner De Bondt and Richard Thaler (2013) are among the first who contributed when Behavioural Finance emerged as a field in the early 1980s. This small group of financial economists met psychologists including Paul Andreassen, Daniel Kahneman and Amos Tversky (2000) at the Russell Sage Foundation in New York. Behavioural Finance began as a peripheral movement and soon went on to replace neo - classical finance.
Behavioural Finance is a combination of Psychology and Economics. It is the study of the influence of

psychology on the behavior of financial practitioners and the subsequent effect on the markets. It is relatively a new field that seeks to combine behavioural and cognitive psychological theory with conventional economics and finance to provide explanations for why people make irrational finance decisions. Behavioural Finance intends to study the impact of investor's emotions and psychology on investment decisions. It is the study of how emotions affect people in general and investors in particular and influence them in making common errors in their financial decisions.

Some common irrational investment behaviours are herd behavior, over- confidence, anchoring, loss aversion, over and under reaction, cognitive dissonance etc., An investor should understand how his emotions result in irrational behavior. Warren Buffet (1999) has observed that," It is only when you combine sound intellect with emotional discipline that you get a rational behavior."

A diligent investor would use different modes of valuations depending on the businesses and do the hardwork of estimating the future. Unfortunately, there is no time for hard work and everyone wants a short -term solution . Despite the hard work, mathematical equations in calculating the risk and return of investments fail to help in investment decisions due to the influence of psychological factors.

Decision making involves proper evaluation of all the alternatives and choosing the best among them. Hence, decision makers have to keep themselves abreast of all information/ knowledge from diversified fields so that they can achieve their individual goals.

REVIEW OF LITERATURE:

Caroline Ndinda Kimeu, W. A. (2016). It was observed that the investment decisions were influenced jointly by heuristics factors, prospect factors, herding factors and rationality factors. It was also found that these factors had a positive influence on the decisions. However, the researcher felt that there is a need to hold accounting and financial seminars to improve the evaluation skills of the investors.

Mehmet Islamoglu, M. A. (2015). The study showed that individual investors were affected by the demographic and psychographic factors and this resulted in irrational decision - making. It was also found there was highest correlation between conscious investor behaviour and banking and payment behaviour.

S. R. Lekshmi, Dr. R. Ganapathi (2015). The exploratory factor analysis reveals that wealth enhancement, affordableness, risk and awareness are the motivational factors for investment among Government employees. The results show that the socio-economic profile of Government employees played a very important role in decision – making than the common motivational factors considered for investment.

Suzaida Bakar, A. N. (2015). This research examines the geographical location and demographic profile between Malaysia and other countries and attempts to bridge the gap by analysing the impact of the psychological factors on investors' decision making in the Malaysian stock market. The findings show that overconfidence, conservatism and availability bias have significant impact on the investors' decision making while herding behavior has no significant impact on the investors' decision making. It was also found that the psychological factors are dependent on individual's gender.

Ambrose Jagongo, V. S. (2014). The researcher found out that the reputation of the firm, firm's status in industry, expected corporate earnings, financial position, past performance of firm's stock, price per share, impact on the economy and expected dividend were the most important factors that influence individual investment decisions.

E.Vijaya. (2014). The study reveals that there are five behavioural factors influencing the investment decisions of individual investors in Indian stock market, which were Overconfidence, Anchoring, Loss Aversion, Herding and Market factors. The findings show that individual investors should utilize their skills and knowledge to be overconfident in all situations for better investment results. Under uncertainty situation, knowledge of the market helps the investors to forecast the future trends.

Khoa Cuong Phan, J. Z. (2014). The results indicated that an individual's investment decision is significantly affected by his attitude towards investment, subjective norms and perceived behavioral control. The study has also provided strong evidences for the existence of psychological factors namely overconfidence, excessive optimism, psychology of risk and herd behavior and that they do have significant impact on the individuals' attitude towards investment.

Lingesiya Kengatharan, N. K. (2014). This study tries to find out whether behavioural factors influence investment decisions. The study also emphasizes that Herding factor and over confidence have negative influence while Anchoring has a positive influence on the investment decisions. Other factors like volume of stock, loss aversion and regret aversion, market information and customer preference do not have any influence on the investment decisions.

Kartasova, J. (2013). According to the results, women are more overconfident investors than men. In addition, the direct connection between investment experience and influence of overconfidence was noted. The results of the research showed that individual investors in Lithuania suffered from all basic biases, but overconfidence, anchoring, mental accounting and herd behaviour made the strongest influence on their financial decision-making process. Moreover, the influence of factors forming irrational individual investors' behaviour depends on their personal characteristics such as age, experience, gender and profession.

Lubna Ansari, M. S. (2013). This study has revealed that gender does not influence the investment decisions of young professionals but Income and Age are influencing factors. According to the study, it can be inferred that majority of investors are risk averse and they invest only for growth and additional income..

Obamuyi, T. M. (2013). The study finds that the socio-economic characteristics of investors (age, gender, marital status and educational qualifications) statistically and significantly influenced the investment decisions of investors in Nigeria.

Significance /Benefits / Relevance of the Study:

The complexities in the equity markets have grown manifold. Creating wealth from equity investing is not purely a mathematical formula but more of a mind game. The market has been overflowing with standard information. But the fact is that a few players dominate the market and also influence the other participants. The attitude and behavior of investors is quite important and affect the investment decisions. For this reason , the study of investor's psychology becomes even more interesting and compelling.

The understanding of human psyche encompasses hundreds of years. Despite the technological advances in other sciences, the study of psychology is still in its youth. Hence, the study of group behavior in markets in general and the behavioural traits of an individual investor in particular is very essential for successful investing. The proposed study deals with the psychological angle to investing and its impact on investment decision – making. In the present day context, markets are made on the basis of the varied opinions expressed by their participants. Human beings are affected by numerous behavioural factors, which become counter - productive to the wealth maximization principle leading to irrational behavior. An understanding of how emotions result in irrational behavior is indispensable for any investor. The proposed study would help us in understanding the psychology of investors and is definitely essential to design a successful investment strategy.

OBJECTIVES OF THE STUDY:

The following constitute the objectives of the paper:

a. To study the level of importance given by the respondents to select behavioural factors that influence investors in their decisions
b. To identify the various socio- economic factors considered by investors while taking decisions on equities
c. To draw meaningful conclusions from the study

Hypotheses:

H_{01} : There is no significant difference in the means computed for overall usage perception of behavioural factors

H_{02} : There is no significant relationship between the gender of respondents and the usage of each of the behavioural factors examined in the study.

H_{03} : There is no difference in the level of importance of behavioural factors for the sampled respondents of the study.

METHODOLOGY:

Population of the study comprises of individual investors based in Bangalore City. Cross – sectional design is employed which has helped to describe the common trend of equity investors. Questionnaires were distributed to collect primary quantitative data which provides the basic understanding of the behavioural factors affecting investment decisions. Convenience Sampling which is one of the Non-probability sampling methods has been used to decide the sample for study.

Questionnaire is divided into three parts: personal information, behavioural factors influencing investment decisions , the importance given to each of the factors and its usage. A 5 – point scale has been used to describe the respondents' opinions.

The data thus collected has been analysed using SPSS after validating the same. Suitable statistical tools like Mean, Percentages, t-test and ANOVA were used to analyse the data.

Hypotheses Testing, Analysis and Interpretation:

H_{01}: There is no significant difference in the means computed for overall usage perception of behavioural factors

Behavioural Factor Bias	Female Mean/Std.Deviation	Male Mean/Std.Deviation
Endowment	3.6/1.12	3.07/1.07
Loss Aversion	3.33/1.18	3.36/0.83
Regret Aversion	3.8/0.86	3.39/1.07
Status Quo	3.40/0.63	3.00/1.15
Optimism	3.60/1.12	3.25/1.04
Anchoring	3.80/1.01	3.32/0.98
Over and Under - Reaction	3.47/0.74	3.39/1.02
Over confidence	3.47/0.92	2.96/1.34
Mental accounting	3.87/0.92	3.85/0.99
Cognitive Dissonance	3.33/0.98	3.33/0.92
Herd Behaviour	2.93/1.33	2.67/1.24
Gambler’s fallacy	2.93/1.16	2.89/1.28
Confirmation	3.80/0.68	3.63/0.88
Availability	3.40/0.91	3.00/0.92
Hindsight	3.80/1.08	3.22/0.93
Contrarian Investing	3.07/1.03	3.73/0.96

From the above table, it may be observed that in case of Behavioural factors like Regret Aversion, Status Quo, Optimism, Anchoring, Over and Under-Reaction, Over Confidence, Mental Accounting, Herd Behaviour , Gambler’s fallacy, Confirmation, Availability, Hind Sight Biases, the means computed for overall usage perception of behavioural factors of females is higher than that of males. However, in case of behavioural factors like Endowment and Loss Aversion, the means computed for males is higher than females. The mean computed for Cognitive Dissonance between males and females are observed to be same. It may also be observed that more male respondents believed in Contrarian Investing than female respondents.
Hence the Null Hypothesis is rejected indicating that there is significant difference in the means computed for overall perception of behavioural factors between the males and females.

H_{02} : There is no significant relationship between the gender of respondents and the usage of each of the behavioural factors examined in the study.

Overall usage of Behavioural Factors

Gender	Mean	Std.Deviation
Female	3.80	0.77
Male	3.78	0.80

From the above table, it may be observed that there is only a marginal difference between the means and standard deviation of male and female respondents indicating that there exists a relationship between the gender of respondents and the usage of each of the behavioural factors. Hence, the above Null Hypothesis is accepted.

H_{03} : There is no difference in the level of importance of behavioural factors for the sampled respondents of the study.

Overall importance of Behavioural Factors

Gender	Mean	Std.Deviation
Female	4.00	0.76
Male	3.82	0.86

From the above table, it may be observed that the level of importance given by female respondents is more than that of male, indicating that there is difference between the level of importance of behavioural factors of the sampled respondents, thus rejecting the Null Hypothesis.

SUMMARY OF FINDINGS:

The above study was conducted as a pilot study with a medium sample size chosen randomly. Efforts were made to find out if the respondents had a clear conceptual understanding of the research topic. Following is the demographic summary of survey responses:

Demographic summary of survey responses

Title	Category	Percentage
Gender	Male Female	64 36
Age	20-30 30-40 40-50 50-60 60-70	38 21 19 14 08
Educational Background	Arts Science Commerce	14 14 72
Educational Qualification	Graduate Post Graduate Professionally Qualified	42 44 14
Income	01 lac – 5 lacs 5 lacs – 10 lacs 10 lacs – 15 lacs 15 lacs and above	51 32 05 11

Ranking of Behavioural Factors according to their level of importance

Behavioural Factors	Weighted Mean	Rank
Endowment Bias	3.26	X
Loss Aversion Bias	3.40	VII
Regret aversion Bias	3.57	IV
Status Quo Bias	3.10	XIII
Optimism Bias	3.43	VI
Anchoring	3.55	V
Over & Under Reaction	3.36	VIII
Over confidence	3.14	XII
Mental Accounting	3.86	II
Cognitive Dissonance	3.33	IX
Herd Behaviour	2.76	XV
Gambler’s fallacy	2.90	XIV
Confirmation bias	3.69	III
Availability bias	3.14	XI
Hindsight	3.43	VI
Contrarian Investing	3.43	VI
Value Investing	4.05	I

The table above shows the ranking of behavioural factors in the order of importance given by the respondents. It may be observed that least importance is given to herd behaviour when compared to other behavioural factors. Mental Accounting is considered as an important factor which shows that people play safe and keep track of market movements. Investors are reluctant to take risk and that can be observed from the ranking given to Regret Aversion Bias. Hindsight, Contrarian Investing and Optimism Biases are tied as respondents feel that these factors carry same level of importance. It may be observed that Value Investing is considered as the most important factor while making investment decisions.

This fact is supported by the table below:

Reason for investing in Equities	Percentage of respondents
Returns are higher than other forms of investments	38
Higher liquidity than other forms of investments	14
Wealth maximization	17
Any other, please specify	8

38% of the investors invest in equity because returns on equity are higher than other forms of investments and 17% feel that equity investments help in wealth maximization. Value Investing not just enables individual investors to maximize wealth at micro-level by helping them pick good stocks but also builds business growth and steers economy in the desired direction.

CONCLUSION AND SUGGESTIONS:

The above study has revealed that behavioural factors play a very important role in equity investment decision making. The difference in the investment factors is due to various socio – economic characteristics like age, gender, educational qualification etc., The study adds inputs to the existing academic database on individual investors.

SCOPE FOR FURTHER RESEARCH:

Value Investing is an investment paradigm and involves buying securities that appear under priced by some form of fundamental analysis. In the words of Benjamin Graham (2013) "price is what you pay and value is what you get". Value investing process requires the hard work of estimating future cash inflows and outflows, discounting them at an appropriate rate that can be expected to occur during the remaining life of the asset. It is considered as a conservative yet long- term strategy. A successful value investor is always a bargain shopper, an independent thinker, a diligent worker and a patient person. Value investors commonly do their own research and fundamental analysis, relying on financial statements and metrics such as profit margins, price-to-earnings ratios and book value to pick their investments.
Value Investing requires an in-depth study to understand the concept and application of it in the context of growing interest in Indian Stock Market.

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