Impact Of Demographic Factors On Emotional Behavioral Biases Of The Individual Investors: Empirical Study On Indian Stock Market

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Abstract

Purpose
The purpose of this paper is to examine the impact of demographic factors (Gender, age, marital status, educational qualification, occupation, investment experience) related to emotional behavioral biases of the individual (retail) investors of Indian stock market.

Design/methodology/approach
The study uses analysis of variance (ANOVA) and t-test analysis to examine the survey data from more than 350 investors in India.

Findings
The results reveal the presence of different emotional behavioral biases including Loss Aversion Bias, Overconfidence Bias, Self-control Bias, Mental Accounting Bias and Herd Behavior Bias among Indian investors. Hence, the findings support the view that individual investors do act as irrational and individual investors are exposed to the behavioral biases. The results shows that martial status, educational qualification and investment experience has a impact on all the selected emotional behavioral biases, but no significant relation with the gender and age demographic variables to emotional behavioral biases.

Research limitations/implications
The study may have implications for financial educated investors in promoting the financial awareness program for individuals. Investment advisors can potentially become more effective by understanding their clients' decision-making processes in investment.

Originality/value
Despite an extensive literature on behavioral biases with reference to emotional biases, limited academic research attempts to unravel the association and effect of demographic factors on emotional behavioral biases. This study contributes to this literature by trying to fill this gap.

Keywords: Demographic factors, behavioral finance, behavioral biases, emotional biases, individual investors.

Introduction:

The decisions to invest money in financial & non-financial asset are made under uncertain conditions. In today's scen[1]ario dealing & coping with uncertain conditions or situations is a challenging aspect to the people and investors are not an exception in this scenario. It's hard to witness that investment decisions under uncertain conditions are a difficult process,

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it involves security selection among various alternatives & decisions to buy, sell or hold the securities in the investment decision making. The uncertainties surrounding the future outcomes of investments are responsible for the complexities of the investment decisions Nofsinger, (2014). The uncertain conditions make investors behavior varies in the investment decision making. The investors behavior study is the part of the behavioral finance in the field of finance. In the recent days behavioral finance plays a significant role to an investors' during investment decision making.

Conventional/traditional finance theories are based on the assumptions that people act rationally and consider all available information in their decisions related to investment Vasile et al., (2012). The fundamental assumption of traditional finance is investors are rational, but this rationality assumption is applicable to the individual investors in the real time scenario as they are exposed to the cognitive and emotional errors at the time of investment decision making. Behavioral finance is associated with the behavioral economics which deals with psychological factors, biases, cognitive dissonance and emotional errors during investment decisions made by an individual investor. Behavioral finance is an emerging field in the area of finance, which has grown to popularity mostly in the last few decades. This field has focused on the irrationality in human behavior. To be very precise the investor behavior and how they make decisions under the influence of emotional errors and mental short cuts.

Pompian (2012) stated that behavioral finance examined the behavior of individual investor and market on the foundations of psychological behavioral theories. Statman (1999) of Santa Clara University has stated that people in standard finance are rational, whereas behavioral finance people are normal, are limited to their self-control and make cognitive errors while investing. According to Olsen (1998) behavioral finance is understanding the axioms that explain the investor behavior by theories of adaptive decision-making to explain stock market volatility.

According to Greenspan (2001) behavioral finance considers psychological factors for decisions related to investors' financial aspects. Market participants due to their irrational behaviors are being emotional in investment decision making. Sewell (2007) examines the impact of the retail investors' psychological behavior in behavioral finance on the capital market decision. The scientific method of behavioral finance scrutinizes the effects of psychological factors and biases that affect investor's behavior through experiments. Baker et al., (2019) conducted a detailed study to understand the effect of financial literacy and demographic variables, such as age, gender, educational level, occupation, marital status & investment experience related to behavioral biases. The results showed different biases have impact on the investment decisions. The findings support that investor not always considers rationally in investment decision making. The important demographics factors like age, occupation and investment experience are associated with investors' behavior. This study emphasised the demographics variables that influence emotional behavioral biases, namely Loss Aversion Bias, Overconfidence Bias, Self-control Bias, Mental Accounting Bias and Herd Behavior Bias. This study produced findings of the impact of demographic variables on the emotional behavioral biases of individual investors and their investment decision making.

Emotional Biases

Emotional biases concentrate on the mental ability statue that lead to spontaneously rather than through conscious effort. The functional reality of emotional biases includes the feeling attributes, belief attributes, perceptions, objects, and relations among all the attributes. The emotional biases outcome will result in physical expressions, regularly unthinking process involved in decision making. Among the investors at the time of investment decision making emotional biases create suboptimal judgments about trading activities.

Usually, investors intend to control emotional errors, but they are exposed to emotional biases in reality, in which investors are not able to eliminate the emotional errors in their behavior towards investment. When emotional biases are compared to cognitive biases, it is difficult to correct emotional errors because such biases are exposed to impulse formulation rather than conscious attributes.

Loss Aversion Bias
Kahneman and Tversky (1979) hit upon the concept of bias caused by loss aversion when they were researching contemporary behavioral bias as well as prospect theory. According to the theory, loss aversion occurs when investors deliberately over-emphasize loss avoidance as the opposite of achieving returns. It was evident that losses are, in their innate nature, more potent than gains. It is clear that decking losses is obviously more powerful than the motivator of gains. A rational market expert ought to accept the heightened risk to predict more profits, not for mitigating losses during trading. Thaler (2000) asserts, "losses hurt nearly double as much as profits make up us feeling good". Gains and losses have been defined as "Changes from a preference of individuals subjectively perceive as neutral reference points". (i.e., Status Quo).

Overconfidence Bias
One of the underestimated risk associations is the overconfidence of the investor in his investment and the tendency to overestimate returns expected. When investors reveal unnecessary faith in their own intuitions, subjective judgments committing cognitive and emotional errors become what is known as overconfidence bias. Overconfidence is one recurring, powerful psychological bias that often motivates investors to react differently to the investment pattern. More often than not one must note that overconfidence is a natural and normal human tendency that can cause huge errors in judgments causing incalculable risks with the result.

Self-Control Bias
Self-Control bias is a significant category of emotional biases. Some investors hopefully lack self-discipline. Such people fail in perceiving long-term objectives. They are supposed to be victims of self-control bias. There exists an innative conflict between achievement that springs from long-term goals and satisfaction that comes from short-term. Besides other factors, money is notorious for motivating people both in losing self-control and displaying it.

Herd Behavior Bias
Herding or jumping into the bandwagon is a common phenomenon of a larger number of investors. Herding occurs when investors sell and buy securities in the same direction. Herding motivates the investors to turn a blind eye even to hard data they know and follow others' information. Herd behavior happens because this class of investors feel that their own information is somewhat inferior. What they get information from others will play a significant role in the stock exchange market. Bartels (1988) explicates herding using a psychological framework. He claims that investors join the herd as they are convinced that a large group of investors will never make a mistake in the investment decision-making process. Herding kind of behavior arises from irrational considerations such investors seem to believe that others in the group have greater competence in understanding and analyzing data. However, Pompian (2006) finds regret aversion as a process that generates "Herding Behavior".

Mental Accounting Bias
A significant information processing bias is known as Mental Accounting Bias. This bias makes people separate and categorize their assets assigning one particular function to each

category. Thaler (1985) describes mental accounting as a cognitive process in which people tend to separate goals, assess and categorize economic outcomes after grouping their assets into mental accounts that are non-interchangeable. Statman (2002) asserts that the investor regularly considers money categorized, resources and assets are utilized to downside protection of investment and prospective assets utilized towards upside potential in investment activities.

Literature review

In recent times, there has been a significant progress work in behavioral finance. The literature on the field of behavioral finance is voluminous, containing survey and analysis through the secondary data. This section discusses few of the predominant contributions done by the researchers with respect to behavioral biases. The literature includes the emotional behavioral biases such as, Loss Aversion Bias, Overconfidence Bias, Self-control Bias, Mental Accounting Bias and Herd Behavior Bias.

Thaler and Shefrin (1981) in their research paper titled "An Economic Theory of Self-control" examined how intertemporal choice leads to problems in the economic theory of self-control. The study considers self-control in a formal model of intertemporal choice by modelling man as a planner in an organization with many doers. Conflict arises because many doers are myopic (selfish). Bondt and Thaler (1985) conducted research on experimental psychology and indicated that people incline to overreact on unanticipated and dramatic news events. The study indicated on the market efficiency investigated through the involvement of behavioral aspects that affected the stock prices. The result of the study found to be of the view that losers in the market outperform their preceding winners.

Benartzi and Thaler (1995) conducted a study on "Myopic Loss Aversion and Equity Premium Puzzle". The study focused on the equity puzzle, which refers to the empirical element that stocks outperformed bonds during the last century by a remarkably larger extent. The study reveals the explanation of the "loss averse" behavioral concept as they are distinctly more sensitive to losses than to gains. Daniel et al. (1998) in their study on investor psychology in stock market over and under reaction. The study revealed that overconfidence implies negative significance in excess volatility, long-lag autocorrelations, and actions of managerial decisions are correlated with based on public event, mispricing of stock and predictability return. Barberis and Huang (2001) conducted a study on emotional errors like Mental Accounting, Loss Aversion, and Individual stock returns. They examined equilibrium firm's stock level in two economies. Firstly, understanding investors' nature with loss averse over the fluctuations of their stock portfolio and secondly investors are found loss averse on over fluctuations of individual stocks that they owned themselves. From the research study, both the approaches shed light on empirical phenomena, but it revealed that the second approach was more successful. Gervais and Odean (2001) conducted study on learning to be overconfident by the traders. They developed multiperiod market model to examine the traders learning ability and effect of bias in this learning that creates overconfident traders. The study revealed that trader's overconfidence increases in the early stage of his career; once the trader gets experience, he relies on his abilities. The outcome of overconfidence of traders results in trading volume, price volatility, and anticipated profits.

Barber and Odean (2001) analyzed the behavioral biases along with the demographic variables that influence the investor's decision in stock market investment. The theoretical model was an exhibit in accordance with establish the influence of psychological elements of investors. Kent and Nofsinger (2002) analyzed the psychological and behavioral biases of investors. The study focused on the investors' cognitive biases and emotional errors, which bifurcated the investors' feelings and thinking. They examined the common investment mistakes that mainly lead to the cognitive and emotional errors of the investor.

Daniel et al. (2002) conducted research study on investor psychology works in capital markets with reference to policy implications and evidence. The study focused on overconfidence and limited attention influence investor credulity on strategic incentives of market participants. The study revealed the presence of psychological factors through the government policies in individuals.

Brad Barber et al. (2009) examined as to how much do individual investors incurred as loss due to trading. The results of individual investor trading are systematic and economically huge losses. The respondents for the study are individual Taiwanese investors. The study's findings indicated that individual investors incurred losses due to excess trading, costs of trading, losses because of market timings, and investors lack the awareness of strategies involved in investments. Berkelaar and Kouwenberg (2009) conducted a research study on loss aversion influence on asset prices. The study focused on the establishment of heterogeneous loss aversion bias influences on the asset prices. The study examined the states of loss averse investors that are less risk averse when wealth increases on the other hand when wealth decreases state loss averse turn to become risk seekers. The study revealed that loss averse investors do not change the features of price process of equilibrium such as high volatility and high equity premium. Cipriani and Guarino (2009) analyzed the herd behavior in financial markets through an experimental design among financial market professionals. The study disclosed two treatments: one in which herding does not arise due to price adjustment to the order flow and the existence of herding through the presence of event uncertainty. The study revealed that the second treatment increases the herd behavior in the financial market professionals. Hwang and Satchell (2010) investigated loss aversion biased investors in financial markets. The study used the typical asset allocation problem in order to examine the loss aversion. The study used both the theoretical and empirical analysis to examine the presence of emotional biases among investors. The results of the empirical and the theoretical examination exhibits the presence of loss aversion bias among financial market investors. Mishra and Metilda (2015) conducted research on the influence of investment experience, the level of education, and gender on the emotional biases like self-attribution and overconfidence biases. The study revealed the higher significant presence of overconfidence bias in investment experience and education attributes of investors. Self-attribution existed in the educational framework of investors. The outcome of the study shows the significant association of emotional biases such as overconfidence and self-attribution biases among investors. Jain and Mandot (2012) in their research worked on the influence of demographic factors on investment decisions pertaining to India's Rajasthan state. There is a positive correlation between cities, income level, and knowledge of the investors to the risk tolerance level. Jain (2014) conducted research on the preferred investment avenues of investors' especially salaried people. The study considered the demographic factors the crucial elements in the investment decisions. The study revealed the influence of demographic factors in the investment preferences by the investors. Level of education and age influenced greatly at the time of investment avenues selection.

Statement of the problem
The financial decision-making process has been found evident to be influenced by emotions errors, sentimental aspects, psychological factors, and behavioral biases. Research evidence has proved that from individual investors to financial institutions to corporate managers, professional analysts, and portfolio managers are influenced by behavioral biases. The study of the market draws more considerable conclusions on psychological factors; they throw light on the way investors buy or sell stocks and the way they sometimes do not buy or sell at all. In this scenario, the study that has been selected for the research is to know the impact of demographic factors on emotional behavioral biases of individual investors and their investment decisions. Basically, this study aims to know the effect of demographic variables on emotional behavioral biases on the individual investors of Bengaluru region.

Objectives for the study
- ➢ To study the demographics variables of individual investors on investment.
- ➢ To understand the effect of demographic variables on emotional behavioral biases of individual investors

Scope of the study
The present study dealing with the two aspects of the variables such as demographic factors and behavioral biases. Demographic variables include age, gender, marital status, educational qualification, occupation, income, and experience in investment. With respect to behavioral biases, the study focuses on the selective emotional behavioral biases such as, Loss Aversion Bias, Overconfidence Bias, Self-control Bias, Mental Accounting Bias and Herd Behavior Bias. The respondents are retail investors situated in Bengaluru city for the study.

Methodology
The study conducted with the data collection from the source of Primary data used for the study (Survey based). Research design used in the study is descriptive research design in nature which is inculcated based on survey based. The stratified snowball sampling method is adopted for this study. Around 460 individual investors approached for data collection survey. 445 responses were collected from the investors, of which few responses were incomplete information in some way or other, making the final number of responses to be 393 as sample size of the study.

The target respondents are the people from investment background in financial products i.e., the people having financial savings and intend to invest in various financial products. Further, the respondents of the Bengaluru city region were selected for the study. The present study developed a structured questionnaire to examine the demographic variables effects on emotional behavioral biases of individual investors. The present study incorporated Nominal, Ordinal, and Interval scales are used. A nominal scale is used for attributes such as age, gender, marital status, and experience in investment. Ordinal scale and Likert's five-point scale is used for the emotional behavioral biases.

Statistical test used in the study: Descriptive statistics used to examine the demographic variables for the study. ANOVA & t-test is used to study the effect of demographic variables on emotional behavioral biases of individual investors.

Hypotheses for the present study:
H_0: There is no dependence between demographic variables and emotional behavioral biases
H_1: There is a dependence between demographic variables and emotional behavioral biases

Reliability Test
The Cronbach's Alpha Coefficient for Research variables is as follows.

Table 1.1: Cronbach's Alpha Coefficient for Research Variables

Sl. No	Variables	Cronbach's Alpha Coefficient
1	Loss Aversion Bias	0.78
2	Overconfidence Bias	0.83
3	Self-Control Bias	0.79
4	Mental Accounting Bias	0.92

5	Herd Behavior	0.88

The reliability or internal consistency for each emotional behavioral bias is tested individually. Outcome of the reliability test revealed that is more than the benchmark value of 0.70, which makes them a preferable scale. Mental accounting bias found highest value of 0.92, followed by herd behavior bias and overconfidence bias with 0.88 and 0.83 respectively. After that self-control bias with 0.79 and loss aversion bias with 0.78.

Limitations of the study

As with any methodology, the present study is also having limitations. The study is confined to sample of Bengaluru city individual investors only due to time and resource constraint. Further limitation, as the study limited to Bengaluru city, the results may vary from other cities as well. With respect to biases, the selective biases are considering only emotional behavioral biases in nature.

Results and Interpretation

The results are depending on the options that individual investors chose with respect to different situations. These choices subsequently unveil the underlying emotional behavioral biases of respondents. A summary of demographic variables and emotional behavioral biases corresponding to each item is presented below.

Table 1.2: Summary of Demographic Variables

		Frequency	Percentage	Cumulative Percentage
Gender	Male	212	54	54
	Female	181	46	100
Age	Less than 25 Yrs.	53	13	13
	26 to 45 Yrs.	213	55	68
	More than 45 Yrs.	127	32	100
Marital Status	Single	214	54	54
	Married	179	46	100
Educational Qualification	Graduation and below	134	34	34
	Post-Graduation and above	259	66	100
Occupation	Professional	19	5	5
	Self-employed	28	7	12
	Salaried	346	88	100
Experience in Investment	0 to 5 years	152	39	39
	6 to 10 years	181	46	85
	11 to 15 years	60	15	100

It was evident from the above analysis table with reference to Gender, 212 respondents are found to be Male, and 181 respondents are Female. With respect to the age of respondents, it is found that 53 respondents belong to the age group of less than 25 years, 213 respondents are of the age group between 26 to 45 years, and 127 respondents are 45 years and above. With regard to Marital Status, 214 respondents are found to be married, and 179 respondents are single. In educational qualification, it is found that 134 respondents' educational qualification is graduation and below. 259 respondents hold post-graduation and above qualifications. With respect to occupation, 346 respondents are found to be salaried people, 28 respondents are self-employed category, and 19 respondents are professionals like doctor, charted accountant, lawyer etc. With respect to experience in investment made by the respondents, it is found that 181 respondents have experienced between 6 to 10 years, 152 respondents have experienced less than or up to 5 years, 60 respondents constitute the experience from 11 to 15 years.

Impact of demographic variables on emotional behavioral biases
The dependence between the emotional behavioral biases and demographic variables of individual investors is detected with the help of the t-test and ANOVA (F-Test). The study considers the several variables, where the factors like gender, marital status and educational qualifications used t-test values to determine the effect on emotional behavioral biases. The other demographic factors like age, occupation, and investment experience considers the ANOVA test to know the existence of emotional behavioral biases of an individual investor.

The present study considers the demographic variables such as, gender, age, marital status, educational qualification, occupation, and investment experience. The study considers the selective emotional behavioral biases are Loss Aversion Bias, Overconfidence Bias, Self-control Bias, Mental Accounting Bias and Herd Behavior Bias. The present study to know the impact of demographic factors/variables on the selected emotional behavioral biases of an individual investors. The detailed analysis of this association for each variable is discussed in the below table.

Results of sample t-test
This test gives a more lucid view as to the investors' specific demographic characteristics corresponding to each emotional behavioral bias. It helps in determining the equality between means of two independent groups.

Table 1.3: Influence of Gender on research variables

Group Statistics						
	Gender	N	Mean	SD	t value	Sig value
Mental Accounting Bias	Female	181	3.18	0.57	0.77	0.44
	Male	212	3.13	0.59		
Loss Aversion Bias	Female	181	3.23	0.55	-1.19	0.24
	Male	212	3.30	0.57		
Overconfidence Bias	Female	181	3.18	0.57	-0.31	0.75
	Male	212	3.20	0.55		
Self-Control Bias	Female	181	3.04	0.65	-1.20	0.23
	Male	212	3.12	0.64		
Herd Behavior Bias	Female	181	3.05	0.65	0.36	0.72
	Male	212	3.03	0.64		

Mental Accounting Bias The respondents of Female found the score 3.18 while respondents Male obtained the score 3.13. It was found from the data analysis that 't' value is 0.77 and Sig value to be 0.44.

Loss Aversion Bias The respondents of Female found the score 3.23 while respondents of Male obtained the score 3.30. It was found from the data analysis that 't' value is -1.19 and Sig value to be 0.24.

Overconfidence Bias The respondents of Female found the score 3.18 while respondents of Male obtained the score 3.20. It was found from the data analysis that 't' value is -0.31 and Sig value to be 0.75.

Self-Control Bias The respondents of Female found the score 3.04 while respondents of Male obtained the score 3.12. It was found from the data analysis that 't' value is -1.20 and Sig value to be 0.23.

Herd Behavior Bias The respondents of Female found the score 3.05 while respondents of Male obtained the score 3.03. It was found from the data analysis that 't' value is 0.36 and Sig value to be 0.72.

Table 1.4: Influence of Marital Status on research variables

Group Statistics						
	Marital Status	**N**	**Mean**	**SD**	**t value**	**Sig value**
Mental Accounting Bias	Married	179	2.97	0.57	-5.88	< .001
	Single	214	3.30	0.54		
Loss Aversion Bias	Married	179	3.11	0.53	-5.17	< .001
	Single	214	3.39	0.55		
Overconfidence Bias	Married	179	3.03	0.56	-5.36	< .001
	Single	214	3.32	0.53		
Self-Control Bias	Married	179	2.87	0.64	-6.25	< .001
	Single	214	3.26	0.6		
Herd Behavior Bias	Married	179	2.86	0.67	-5.27	< .001
	Single	214	3.19	0.58		

Mental Accounting Bias The respondent of Married found the score 2.97 while respondents of Single found the value 3.30. It was evident from the above data analysis that 't' value is -5.88 and Sig value is found to be <0.001.

Loss Aversion Bias The respondent of Married found the score 3.11 while respondent of Single found the value 3.39. It was evident from the above data analysis that 't' value is -5.17 and Sig value is found to be <0.001.

Overconfidence Bias The respondent of Married found the score 3.03 while respondents of Single found the value 3.32. It was evident from the above data analysis that 't' value is -5.36 and Sig value is found to be <0.001.

Self-Control Bias The respondent of Married found the score 2.87 while respondent of Single found the value 3.26. It was evident from the above data analysis that 't' value is -6.25 and Sig value is found to be <0.001.

Herd Behavior Bias The respondent of Married found the score 2.86 while respondent of Single found the value 3.19. It was evident from the above data analysis that 't' value is -5.27 and Sig value is found to be <0.001.

Table 1.5: Influence of Educational Qualification on research variables

Group Statistics						
Educational Qualification		**N**	**Mean**	**SD**	**t value**	**Sig value**
Mental Accounting Bias	Graduation and below	134	3.04	0.61	-2.87	0.00
	Post-Graduation and above	259	3.21	0.55		
Loss Aversion Bias	Graduation and below	134	3.16	0.59	-2.82	0.01
	Post-Graduation and above	259	3.32	0.53		
Overconfidence Bias	Graduation and below	134	3.09	0.58	-2.51	0.01
	Post-Graduation and above	259	3.24	0.55		
Self-Control Bias	Graduation and below	134	2.91	0.65	-3.87	< 0.001
	Post-Graduation and above	259	3.17	0.63		
Herd Behavior Bias	Graduation and below	134	2.90	0.68	-3.06	0.00
	Post-Graduation and above	259	3.11	0.61		

Mental Accounting Bias The Graduation and below respondents obtained the score of 3.04 while Post Graduation and above respondents obtained the score of 3.21. It was found evident from the above data analysis that 't' value is -2.87 and Sig. value is found to be 0.00.

Loss Aversion Bias The Graduation and below respondents obtained the score of 3.16 while Post Graduation and above respondents obtained the score of 3.32. It was found evident from the above data analysis that 't' value is -2.82 and Sig. value is found to be 0.01.

Overconfidence Bias The Graduation and below respondents obtained the score of 3.09 while Post Graduation and above respondents obtained the score of 3.24. It was found evident from the above data analysis that 't' value is -2.51 and Sig. value is found to be 0.01.

Self-Control Bias The Graduation and below respondents obtained the score of 2.91 while Post Graduation and above respondents obtained the score of 3.17. It was found evident from the above data analysis that 't' value is -3.87 and Sig. value is found to be <0.001.

Herd Behavior Bias The Graduation and below respondents obtained the score of 2.90 while Post Graduation and above respondents obtained the score of 3.11. It was found evident from the above data analysis that 't' value is -3.06 and Sig. value is found to be 0.00.

Table 1.6: Influence of Age on research variables

Group Statistics						
	Age	**N**	**Mean**	**SD**	**F value**	**Sig value**
Mental Accounting Bias	Less than 25 Yrs.	53	3.2	0.6	0.25	0.781
	25 to 45 Yrs.	213	3.14	0.6		

	More than 45 Yrs.	127	3.14	0.6		
Loss Aversion Bias	Less than 25 Yrs.	53	3.27	0.6	0.13	0.881
	25 to 45 Yrs.	213	3.25	0.6		
	More than 45 Yrs.	127	3.28	0.5		
Overconfidence Bias	Less than 25 Yrs.	53	3.12	0.5	2.24	0.108
	25 to 45 Yrs.	213	3.24	0.5		
	More than 45 Yrs.	127	3.13	0.6		
Self-control Bias	Less than 25 Yrs.	53	3.06	0.7	0.34	0.712
	25 to 45 Yrs.	213	3.11	0.6		
	More than 45 Yrs.	127	3.06	0.7		
Herd Behavior Bias	Less than 25 Yrs.	53	2.95	0.7	0.61	0.544
	25 to 45 Yrs.	213	3.05	0.6		
	More than 45 Yrs.	127	3.05	0.7		

Mental Accounting Bias The 25 to 45yrs respondents obtained the score of 3.14. Less than 25 yrs. respondents achieved the 3.20 and more than 45 yrs. respondents obtained the score of 3.14. It was found evident from the above data of the study that the 'F' value is 0.25 and Sig. value is found to be 0.781.

Loss Aversion Bias The 25 to 45yrs respondents obtained the score of 3.25. Less than 25 yrs. respondents achieved the 3.27 and more than 45 yrs. respondents obtained the score of 3.28. It was found evident from the above data of the study that the 'F' value is 0.13 and Sig. value is found to be 0.881.

Overconfidence Bias The 25 to 45yrs respondents obtained the score of 3.24. Less than 25 yrs. respondents achieved the 3.12 and more than 45 yrs. respondents obtained the score of 3.13. It was found evident from the above data of the study that the 'F' value is 2.24 and Sig. value is found to be 0.108.

Self-Control Bias The 25 to 45yrs respondents obtained the score of 3.11. Less than 25 yrs. respondents achieved the 3.06 and more than 45 yrs. respondents obtained the score of 3.06. It was found evident from the above data of the study that the 'F' value is 0.34 and Sig. value is found to be 0.712.

Herd Behavior Bias The 25 to 45yrs respondents obtained the score of 3.05. Less than 25 yrs. respondents achieved the 2.95 and more than 45 yrs. respondents obtained the score of 3.05. It was found evident from the above data of the study that the 'F' value is 0.61 and Sig. value is found to be 0.544.

Table 1.7: Influence of Occupation on research variables

Group Statistics						
	Occupation	N	Mean	SD	F value	Sig value
Mental Accounting Bias	Prof-Others	19	2.79	0.53	5.19	0.00
	Salaried	346	3.18	0.58		
	Self-employed	28	2.98	0.56		

Loss Aversion Bias	Prof-Others	19	3.12	0.51	4.46	0.01
	Salaried	346	3.29	0.56		
	Self-employed	28	2.96	0.56		
Overconfidence Bias	Prof-Others	19	2.80	0.49	6.88	0.00
	Salaried	346	3.22	0.56		
	Self-employed	28	2.98	0.43		
Self-control Bias	Prof-Others	19	2.79	0.58	2.67	0.07
	Salaried	346	3.11	0.65		
	Self-employed	28	2.96	0.65		
Herd Behavior Bias	Prof-Others	19	2.41	0.62	12.06	<.001
	Salaried	346	3.08	0.62		
	Self-employed	28	2.81	0.57		

Mental Accounting Bias The Salaried respondents obtained the score of 3.18. Self-employed respondents obtained the 2.98 and professional and other respondents obtained the lowest score of 2.79. It was found evident from the above data that the 'F' value is 5.19 and Sig. value is found to be 0.00.

Loss Aversion Bias The Salaried respondents obtained the score of 3.29. Self-employed respondents obtained the 2.96 and professional and other respondents obtained the lowest score of 3.12. It was found evident from the above data that the 'F' value is 4.46 and Sig. value is found to be 0.01.

Overconfidence Bias The Salaried respondents obtained the score of 3.22. Self-employed respondents obtained the 2.98 and professional and other respondents obtained the lowest score of 2.80. It was found evident from the above data that the 'F' value is 6.88 and Sig. value is found to be 0.00.

Self-Control Bias The Salaried respondents obtained the score of 3.11. Self-employed respondents obtained the 2.96 and professional and other respondents obtained the lowest score of 2.79. It was found evident from the above data that the 'F' value is 2.67 and Sig. value is found to be 0.07.

Herd Behavior Bias The Salaried respondents obtained the score of 3.08. Self-employed respondents obtained the 2.81 and professional and other respondents obtained the lowest score of 2.41. It was found evident from the above data that the 'F' value is 12.06 and Sig. value is found to be <0.001

Table 1.8: Influence Investment Experience in Capital Market on research variables

Group Statistics						
Investment Experience in Capital Market		**N**	**Mean**	**SD**	**F value**	**Sig value**
Mental Accounting Bias	0-5yrs	152	3.3	0.52	11.61	< .001
	11-15yrs	60	2.92	0.58		
	6-10yrs	181	3.1	0.59		
Loss Aversion Bias	0-5yrs	152	3.39	0.52	6.78	0.001

	11-15yrs	60	3.12	0.52		
	6-10yrs	181	3.21	0.58		
Overconfidence Bias	0-5yrs	152	3.29	0.5	12.37	<.001
	11-15yrs	60	2.88	0.57		
	6-10yrs	181	3.2	0.57		
Self-control Bias	0-5yrs	152	3.22	0.58	19.42	<.001
	11-15yrs	60	2.64	0.61		
	6-10yrs	181	3.11	0.65		
Herd Behavior Bias	0-5yrs	152	3.17	0.55	17.34	<.001
	11-15yrs	60	2.62	0.66		
	6-10yrs	181	3.07	0.65		

Mental Accounting Bias The less than or equal to 5 yrs. respondents obtained the score of 3.30. 6 to 10 yrs. of respondents obtained the 3.10 and 11 to 15 yrs. of respondents obtained the score of 2.92. It was found evident from the above data analysis that the 'F' value is 11.61 and Sig value is found to be <0.001.

Loss Aversion Bias The less than or equal to 5 yrs. respondents obtained the score of 3.39. 6 to 10 yrs. of respondents obtained the 3.21 and 11 to 15 yrs. of respondents obtained the score of 3.12. It was found evident from the above data analysis that the 'F' value is 6.78 and Sig value is found to be 0.001.

Overconfidence Bias The less than or equal to 5 yrs. respondents obtained the score of 3.29. 6 to 10 yrs. of respondents obtained the 3.20 and 11 to 15 yrs. of respondents obtained the score of 2.88. It was found evident from the above data analysis that the 'F' value is 12.37 and Sig value is found to be <0.001.

Self-Control Bias The less than or equal to 5 yrs. respondents obtained the score of 3.22. 6 to 10 yrs. of respondents obtained the 3.11 and 11 to 15 yrs. of respondents obtained the lowest score of 2.64. It was found evident from the above data analysis that the 'F' value is 19.42 and Sig value is found to be <0.001.

Herd Behavior Bias The less than or equal to 5 yrs. respondents obtained the score of 3.17. 6 to 10 yrs. of respondents obtained the 3.07 and 11 to 15 yrs. of respondents obtained the lowest score of 2.62. It was found evident from the above data analysis that the 'F' value is 17.34 and Sig value is found to be <0.001.

Findings of the study

Gender: The test results show that the mean values of men and women do not vary significantly in emotional behavioral biases. The null hypothesis got accepted in respect to all the emotional behavioral biases. It is seen that men and women do not vary significantly by accepting null hypotheses and rejecting alternative hypotheses with respect to emotional behavioral biases.

Marital Status: The test reveals that the respondents with respect to marital status are highly vulnerable as they are prone to all the emotional biases. It is seen that this category is rejected the null hypotheses with regard to all the emotional behavioral biases by accepting the alternative hypotheses. It shows the existence of significant difference between the marital status and emotional behavioral biases.

Educational Qualification: The test results shows that the mean values of educational qualifications do vary significantly with emotional behavioral biases. The null hypotheses is rejected and alternative hypotheses got accepted in this demographic variable. In this category shows there is a significant difference between educational qualification and emotional behavioral biases.

Age: The test results show that the mean value with age of respondents do not vary significantly in emotional behavioral biases. The null hypothesis got accepted in respect to all the emotional behavioral biases. It is seen that age of respondents do not vary significantly by accepting null hypotheses, it means mean values of age do not vary significantly with loss aversion bias, overconfidence bias, self-control bias, mental accounting bias and herd behavior bias. With this rejecting alternative hypotheses with respect to emotional behavioral biases.

Occupation: The test reveals that the respondents with respect to occupations are exposed to emotional behavioral biases. It is seen that this category is rejected the null hypotheses with regard to four emotional behavioral biases. Only self-control bias, got accepted the null hypotheses. It is found that existence of significant difference between occupation and emotional biases namely, namely loss aversion bias, overconfidence bias, mental accounting bias and herd behavior bias.

Investment Experience: The test reveals that the respondents with respect to investment experience are highly vulnerable as they are exposed to all the five emotional biases. It is seen that this category is rejected the null hypotheses with regard to all the emotional behavioral biases by accepting the alternative hypotheses. It shows the existence of significant difference between the investment experience and emotional behavioral biases namely, loss aversion bias, overconfidence bias, self-control bias, mental accounting bias and herd behavior bias.

Conclusion:
The behavioral biases are an integral part of investors' behavior towards the investment decision making. Investors' emotional behavioral biases determines the investor's success or failure of their investments. The study exhibits the demographic variables has impact on emotional behavioral biases. This paper examines the impact of demographic factors influence on emotional behavioral biases of individual investors. In line with the hypotheses, the finding indicates that existence of impact of demographic variables on the selected emotional behavioral biases. Marital status, educational qualification and investment experience demographic variables has impact on all emotional behavioral biases such as, loss aversion bias, overconfidence bias, self-control bias, mental accounting bias and herd behavior bias. Occupation has impact on the four emotional behavioral biases except self-control bias. Whereas gender and age demographic factors does not impact on any of the emotional biases in the present study. The study finds the limited evidence that has impact of demographic variables on emotional behavioral biases. The marital status, educational qualification and investment experience is found to be highly vulnerable to the emotional behavioral bias as these demographic factors have impact on all the selected emotional behavioral biases.

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