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BEHAVIORAL FINANCE AND INVESTMENT DECISION- MAKING: EVIDENCE FROM RETAIL INVESTORS IN INDIA

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Abstract

The study investigates the influence of behavioral finance factors on investment decision-making among retail investors in India. Grounded in Prospect Theory and bounded rationality, the research examines how cognitive and emotional biases shape financial decisions in an emerging market context. A quantitative approach is adopted using a cross-sectional dataset of 600 retail investors, incorporating behavioral variables such as overconfidence, herding behavior, loss aversion, regret aversion, heuristic bias, mental accounting, and risk perception, along with investor-specific factors including financial literacy, risk tolerance, and investment experience. Multiple regression analysis is employed to assess the relationships between these variables and investment decision-making. The findings reveal that overconfidence positively influences decision-making; while herding, loss aversion, regret aversion, heuristic bias, and mental accounting have significant negative effects. Financial literacy, risk tolerance, and investment experience are found to enhance decision quality. However, social media influence and market sentiment sensitivity do not exhibit significant direct effects. The study contributes to the behavioral finance literature by providing an integrated empirical model in the Indian context and highlights the importance of addressing behavioral biases to improve investment outcomes. The findings offer practical implications for policymakers, financial educators, and market participants in promoting informed and rational investment behavior.

Keywords: Behavioral Finance, Investment Decision-Making, Retail Investors, Overconfidence, Herding Behavior, Loss Aversion, Financial Literacy, India

1. Introduction

The traditional finance theory is based on the premise that investors are rational and markets are

efficient, implying that asset price is a reflection of all the information available. In this model people are required to come up with the best decisions that

aim to maximize returns and minimize the risk. Nonetheless, empirical data has always criticized these assumptions showing that the actual investor behavior does not always tend to be rational. Although it is a fundamental assumption, the Efficient Market Hypothesis does not explain systematic abnormalities that can be caused by human psychology and cognitive constraints (Mikołajek-Gocejna and Urbaś, 2023). To address these shortcomings, behavioral finance has become an important paradigm that incorporates the knowledge of psychology and economics in a bid to understand how people actually make financial decisions.

Behavioral finance implies that the choices made by investors are often affected by cognitive biases, heuristics, and emotions instead of a rational assessment (Kamoune and Ibenrissoul, 2022; Gabhane et al., 2023). Overconfidence, herding behavior, loss aversion, and regrets are some of the biases that may influence investors to make suboptimal decisions, which ultimately impacts on the market. These behavioral patterns are especially applicable in the emerging economies such as India where the financial environment has experienced a lot of quick change in the recent past. Financial technology (fintech) growth, the rise of more accessible mobile trading platforms, and increased financial inclusion have greatly increased the involvement of retail investors in financial markets (Goswami et al., 2022). Consequently, an eclectic mix of individual investors, usually of different financial literacy and experience, is actively getting involved in investment activities.

Although this has grown, behavioral factors have been influencing the decision-making of Indian retail investors in their investments and are not

well explained by conventional financial models. The classical theories, which presuppose fully informed and rational agents, do not focus on the psychological and social aspects that motivate the investor behavior (Sent, 2018). In reality, it is commonplace that retail investors often make investment decisions based on heuristics, social cues and emotional decisions, particularly during turbulent market times. Although previous research has recognized the contributions of behavioral biases, they are usually considered separately, and their overall impacts have not been well studied. It is evident that the relationship between several behavioral constructs as well as their interactions require a detailed structure that can assess the extent to which they affect the decision-making in investment.

The existing literature has been able to make a contribution to the field of psychology of investors, but there are still some gaps in this area. Most empirical research concentrates on isolated biases instead of taking the multifaceted approach where the intricacy of investor behavior is captured (Sharath and Reddy, n.d.; Agarwal and Rao, 2023). Moreover, the Indian context is a setting where research tends to be small in scale and diversity of samples, limiting the extrapolability of the results (Saxena et al., 2025). Despite the recent studies that have started to consider mediating processes like risk perception (Choudhary and Yamuna, 2025), the comprehensive comprehension of how cognitive, emotional, and social drivers of investment decisions interact has not yet been developed. Also, datasets which include both variables of behavior, demographics, and measured outcomes of a decision are few and far between, which complicates the ability to empirically test integrated behavioral models.

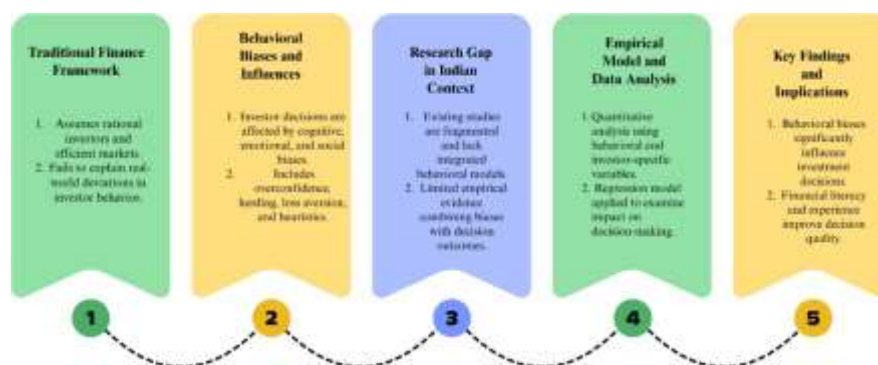


Figure 1: Conceptual Flow of Behavioral Finance Framework Influencing Investment Decision-Making among Retail Investors in India

The current study is based on the developed theoretical views to elucidate the non-rational

decision-making. Prospect Theory offers a perspective on the way humans assess gains and

losses in an unequal manner, and tend to respond more to losses than to equivalent gains (Heutel, 2019). The idea of limited rationality also implies that decision-making is limited due to a lack of information and cognitive functioning (Sent, 2018). The Heuristic Decision Theory describes the application of mental shortcuts in complicated decision-making situations, which may result in systematic errors (Elgendy et al., 2022), and Behavioral Portfolio Theory takes into account psychological preferences when making investment decisions (Akkaya, 2021). Also, the Social Influence Theory identifies the behavior of peers and the use of social media to influence investor decisions by describing their impact on investor decisions via herding and word-of-mouth effects (Li and Wu, 2018).

Combining these theoretical approaches, the current research formulates a cohesive model to investigate how various behavioral biases impact investment choices of retail investors in India. It contributes to the literature by providing context-specific data on the side of an emerging market as well as bridging the gap between the psychological theory and financial practice in an integrated method of analysis.

Research Objectives

1. To examine the impact of behavioral biases on investment decision-making among retail investors in India
2. To evaluate the influence of investor-specific factors on the quality of investment decisions
3. To develop and test an integrated behavioral finance model that explains investment decision-making by combining behavioral, demographic, and social influence factors in the Indian retail investment context

2. Methodology

2.1 Research Design

The study possesses a quantitative, cross-sectional, and explanatory research design to examine the influence of behavioral biases on making investment decisions. It is based on the behavioral finance theory and is meant to establish causal relationship between psychological variables and the results of investment. An analytical framework is used to study the interaction of various behavioral factors in influencing the decision-making process of retail investors.

2.2 Data Source and Sample

The data used in the study is 600 observations indicating Indian retail investors. The dataset will model the realistic investor features, such as demographic features, investment profiles and

behavioral variables. The individual investor is the unit of analysis and the data is plausible in terms of distributions with previous empirical research.

2.3 Variables and Measurement

The dependent variable is the investment decision-making, which is measured by a composite continuous score, which is decision quality. Key behavioral biases are independent variables and they are overconfidence, herding, loss aversion, regret aversion, mental accounting, heuristic bias and risk perception. Others like the sensitivity of the market sentiment and the impact of social media are incorporated. All the behavioral constructs are measured in Likert scale (1-5), whereas the demographics and financial variables are measured in both categorical and numerical data.

2.4 Model Specification

This work is based on the multiple regression model that is used to approximate correlation between the behavioral factors and investment decision-making. The model is founded on behavioral variables and control variables, including the financial literacy, risk tolerance, and investment experience. In such a way, it is possible to determine the relative significance and orientation of the influence of each of these factors. The regression model has a good background on testing and empirical testing.

2.5 Analytical Techniques

Standard statistical methods, such as descriptive statistics, correlation analysis, and multiple regression analysis are used to analyze the data. The alpha of Cronbach is measured to determine the reliability of various behavioral constructs whereas multicollinearity is identified by correlation diagnostics. Factor analysis can be used to justify construct structure where necessary. Statistical software, e.g., SPSS or R, is used to conduct the analysis and ensure rigor and reproducibility.

3. Results and Discussion

3.1 Model Summary and Goodness of Fit

The outcomes of the multiple regression analysis show that the model is powerful in explaining the results. The model as illustrated in Table 3.1 shows that it accounts 68.6 percent of the variance of investment decision-making ($R^2 = 0.686$) with an adjusted $R^2 = 0.679$. The total model is statistically significant ($F = 106.8, p = 0.001$) which points to the fact that the independent variables collectively affect the investment decision-making.

Table 3.1: Model Summary and Goodness of Fit

Statistic	Value
R-squared	0.686
Adjusted R-squared	0.679
F-statistic	106.8
Prob (F-statistic)	< 0.001
Observations	600

3.2 Impact of Behavioral Biases on Investment Decision-Making

Table 3.2 shows that behavioral biases play a crucial role in the investment decisions. There is a positive and significant effect ($\beta = 2.2147$, $p < 0.001$) of overconfidence with the implication that greater confidence enhances decision-making. Herding, loss aversion, regret aversion, heuristic bias and mental accounting, on the other hand, demonstrate negative and significant effects which means the biases make investment choices less good.

Table 3.2: Regression Results – Behavioral Variables

Variable	Coefficient (β)	t-value	p-value
Overconfidence	2.2147	9.723	<0.001
Herding	-1.7735	-6.395	<0.001
Loss Aversion	-1.7617	-7.074	<0.001
Regret Aversion	-1.5375	-6.726	<0.001
Mental Accounting	-0.5399	-2.667	0.008
Heuristic Bias	-1.0209	-4.191	<0.001
Risk Perception	-0.1815	-0.815	0.415

3.3 Influence of Investor-Specific Factors

Table 3.3 also indicates that investor-specific characteristics also have a major impact. The effects of financial literacy ($\beta = 0.3282$, $p = 0.001$), risk tolerance (1.9780, $p = 0.001$), investment experience (0.2027, $p = 0.008$) are all positive and statistically significant, showing that informed and experienced investors make better decisions.

Table 3.3: Regression Results – Investor Characteristics

Variable	Coefficient (β)	t-value	p-value
Financial Literacy	0.3282	10.158	<0.001
Risk Tolerance	1.9780	6.241	<0.001
Investment Experience	0.2027	2.653	0.008

3.4 Influence of Social and Market Factors

Table 3.4 shows the impact of social and market-related variables. The sensitivity of social media influence and sensitivity to market sentiment are not statistically significant, implying that they are not directly related to investment decision-making in the existing model.

Table 3.4: Regression Results – Social and Market Factors

Variable	Coefficient (β)	t-value	p-value
Social Media Influence	0.3444	1.274	0.203
Market Sentiment Sensitivity	0.0196	0.086	0.931

3.5 Diagnostic and Model Validity Checks

The model is reliable as shown by diagnostic statistics. The Durbin, Watson value (1.999) in Table 3.5 shows that there is no autocorrelation. Also, Jarque Bera and Omnibus tests affirm normality of residuals which prove the validity of assumptions on regression.

Table 3.5: Diagnostic Statistics

Test	Value
Durbin-Watson	1.999
Jarque-Bera	0.761
Prob (JB)	0.683
Omnibus	0.694
Prob (Omnibus)	0.707

4. Discussion

The results of this research are highly empirical in the determination of the influence of behavioral variables in the determination of investment decisions by retail investors in India. The outcomes of the regression analysis reveal that both cognitive and emotional biases play a major role in affecting the quality of decision outcomes, and as such, support the major hypotheses of the behavioral finance theory. Specifically, the positive impact of overconfidence, on the one hand, is quite substantial and indicates that more assertive and decisive investment decisions are made by the investors, who believe strongly in their own abilities. The result is consistent with the existing behavioral finance literature, which emphasizes overconfidence as one of the major factors of active investment behavior and perceived decision effectiveness (Hon et al., 2021).

On the other hand, herding behavior, loss aversion and regret aversion have negative and significant consequences that highlight the harmful influence of emotional and social biases on investment choices. One of them, specifically herding behavior, is an indicator of the inclination of investors to imitate the behavior of others, instead of depending on independent analysis. This finding can be explained by the theoretical basis of Social Influence Theory, which highlights the importance of collective behavior and information cascades in making financial decisions (Li and Wu, 2018). Furthermore, the Indian context that is increasingly becoming dependent on digital platforms, social media has increased herding behaviour among retail investors, as pointed out by Singh and Kumar (2024).

Likewise, the great harm of the loss aversion and regret aversion offer a solid argument in favor of the Prospect Theory that states that human beings have imbalanced preferences to gains and losses (Heutel, 2019). When investors have made a decision that is more likely to lead to losses than it would to gains, they are likely to overuse losses more than they would consider gains, resulting in overly cautious or slow decision-making. This tendency in behavior has been extensively reported in the emerging markets, where emotions tend to prevail over the rational consideration (Shah and Malik, 2021; Pandey and Sharma, 2024). This study also supports the evidence that these biases have the potential to greatly decrease the quality of investment decisions.

The adverse effect of the heuristic bias and mental accounting also underscores the impact of simplified process of decision-making in the development of investor behavior. Using heuristics, decisions are cognitively efficient; however, systematic errors can occur and result in suboptimal decisions. The observation aligns with the suggestion of the Heuristic Decision Theory that the use of mental shortcuts can undermine the accuracy of decisions in complex financial situations (Elgendy et al., 2022). Likewise, the notion of mental accounting indicates that investors tend to keep financial resources distinct, which results in divided and even irrational portfolio decisions, which have been highlighted in Behavioral Portfolio Theory (Akkaya, 2021).

Besides behavioral biases, financial literacy, risk tolerance, and investment experience are found to play a big positive role in investment decision-making by investors themselves (John et al., 2025). These results indicate that the negative impact of behavioral biases can be overcome with the help of rational and knowledge-based characteristics. With better information processing and evaluation, financially literate investors are better placed to make decisions about investment opportunities, thus enhancing decision quality. Similarly, increased risk tolerance and investment experience increase the chances of investors to sail through market uncertainties. These results are consistent with the broader literature, which emphasizes the importance of investor education and experience in promoting rational financial behavior (Hon et al., 2021).

Interestingly, the research concludes that there is no statistically significant effect that risk perception, influence of social media, and sensitivity of market sentiment has on investment decision-making. Although earlier research has already implied that social media and digital interaction could potentially affect the investor

behavior (Gathergood et al., 2024), the current results show that these effects might not directly translate into the quantifiable decision outcomes in the context of other behavioral and cognitive factors. This implies that the effects of these variables could be indirect or context-sensitive and therefore should be examined in future studies.

The results of the present research support the applicability of the concept of limited rationality to the sphere of financial choices since investors make decisions under cognitive limitations and incomplete information (Sent, 2018). Using several behavioral constructs under the same empirical framework gives a deeper insight into investor behavior in emerging markets. This study can be relevant to the emerging body of literature that questions the assumptions of traditional finance and advocates the application of behavioral approaches to financial analysis and policy formulation by showing that behavioral biases are important factors in investment decisions.

5. Conclusion

This paper investigates how behavioral biases affect investment decision-making in India by retail investors, and empirically supports it in terms of behavioral finance. The results reveal that cognitive and emotional biases have a strong impact on investment performance, in which overconfidence has a positive impact on decision-making, and herding behavior, loss aversion, regret aversion, heuristic bias, and mental accounting have a negative impact on the quality of decisions. These findings support the applicability of the Prospect Theory and limited rationality, and emphasize the fact that investors are not always completely rational. Moreover, the investor-specific variables, i.e. financial literacy, risk tolerance, and investment experience, also positively influence the efficiency of decision-making, which implies that the negative impact of the behavioral biases can be reduced by knowledge and experience. Nevertheless, influences of variables, including social media influence and market sentiment sensitivity, are not significantly directly impactful, which suggests that external factors are complex in investment behavior. In general, the research ought to add to the behavioral finance literature by creating a comprehensive model that considers a combination of psychological and financial variables in an emerging market environment. The policy implications of the findings are that they can be used by policy-makers, financial educators and investment platforms to formulate policies that can help in improving investor awareness, rational decision making and overall market efficiency.

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