Financial Literacy as a Moderator in Behavioral Biases and Investor Decisions

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Abstract

Purpose : The first objective of this research paper was to examine the impact of behavioral biases on investment decisions. Additionally, the second objective was to analyze the moderating role of financial literacy in the relationship between behavioral biases and investment decisions in a developing country like India.

Design/Methodology/Approach : The conceptual framework was based on prospect theory and regret theory. The author considered six independent variables (herding bias, overconfidence bias, endowment bias, loss aversion bias, regret bias, and mental accounting bias), one dependent variable (investment decision), and one moderating variable (financial literacy). Data for the survey was collected using a structured questionnaire from 326 investors in Delhi and Noida.

Findings : The findings of this study revealed that behavioral biases influenced investors' decisions. Another key finding was that financial literacy moderated the relationship between biases and investment decisions. In summary, higher financial literacy made investors more capable of identifying and overcoming biases. This insight enabled investors to make more logical and well-informed investment decisions.

Practical Implications : The research findings are significant for policymakers, managers, investors, and shareholders. Policymakers could design financial education programs and initiatives to improve financial literacy, fostering a more knowledgeable investor base. This will contribute to greater market stability.

Originality/Value : Previous research frequently examined individual biases but did not explore the potential influence of financial literacy on these biases in conjunction with demographic factors in the Indian context.

Keywords : **financial literacy, behavioral biases, investor decision-making, retail investor, moderating effect**

JEL Classification Codes : G11, G41, G53

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Last several years, the worldwide market has experienced significant volatility and fluctuations. This instability has led to unnecessary swings in asset prices, which traditional financial theories fail to adequately explain. Numerous studies have shown that stock markets have performed exceptionally well,

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often delivering returns exceeding 15%. However, most investors still perceive stock market returns as uncertain and volatile. Even knowledgeable and seasoned investors often struggle to secure above-average returns (Manzoor et al., 2023). Global research on investor behavior has revealed that decision-makers frequently act irrationally, and their choices are affected by various other factors. This is the reason researchers and academics examine their psychology to identify the reasons behind their irrational behavior (Gupta & Kohli, 2021). A new dimension has been developed called behavioral finance (Aziz et al., 2024). Behavioral finance is a technique for understanding the psychology of financial market players (Annapurna & Basri, 2024). The conventional financial theory defines that individuals formulate their investment choices based on rational behavior. According to the efficient market hypothesis (EMH), individuals make rational investment choices free from biases (Dhungana et al., 2022). It assumes that investors are well-informed and operate in a world of complete certainty, where biases do not affect their buying and selling decisions. However, in reality, this assumption does not hold. Over the years, investors have increasingly relied on professional opinions and modern financial theories to guide their investments and optimize profits over various time horizons.

In terms of research problems, despite extensive research on behavioral biases, existing studies have largely focused on limited biases or specific regions, neglecting the impact of financial literacy in shaping these relationships. In addition, several research studies attempted to shed light on investor behavior from a variety of angles (Hoffmann et al., 2010). Prior studies have been conducted on Pokhara Valley in Nepal, Kenya, Nigeria, Rwanda, China, and Pakistan (Dhungana et al., 2022; Rehman et al., 2024). Previous literature has not addressed the developing country India with the moderating effect of financial literacy. Keeping in view the research gaps identified, the study emphasizes inferences to add to the existing literature.

The present study aims to examine the connection between biases and investment decisions. Six variables include herding bias (HB), overconfidence bias (OB), endowment bias (EB), loss aversion bias (LB), regret bias, and mental accounting bias. One more important aspect that the authors have attempted to find out is whether financial literacy acts as a moderator in the investment decisions of retail investors. The moderating effect of financial literacy is evident in how it affects the strength and direction between cognitive biases and investment choices. The research will assist investors in understanding the causes of irrational decision-making. It will help researchers understand how these behavioral biases differ in individualist cultures and their impact on the mental health of developing nations like India. By filling this gap, the research will provide insights into how financial literacy can help investors make more informed and rational financial decisions, ultimately aiding policymakers and investment advisors in designing better financial education programs.

Literature Review

Theoretical Literature Review

Behavioral finance, pioneered by Kahneman and Tversky (1979), explores how psychological factors influence investment decisions. Kahneman was awarded the Nobel Prize in Economics for prospect theory, which demonstrates that investors react irrationally to financial information. Prospect theory explains decision-making under uncertainty (Dzung et al., 2021), highlighting biases like loss aversion, where losses impact individuals more than equivalent gains (Kahneman & Tversky, 1979). Investors assess profits and losses in comparison to a reference point rather than considering their absolute value. Regret theory further examines decision-making, suggesting that investors aim to minimize regret by comparing actual outcomes with potential alternatives (Hayes & Wedell, 2021). Behavioral finance encompasses several theories, providing insights into cognitive biases affecting market behavior (Nkukpornu et al., 2020). Empirical evidence supports that biases drive irrational

investment patterns, influencing financial markets (Thaler, 2016). By understanding these biases, behavioral finance helps explain why investors deviate from rational investment choices.

Behavioral Biases and Investment Decisions

Recent research has extensively explored the influences of behavioral influence on decision-making, highlighting their influence on investor psychology and investment market inefficiencies. HB, as defined by Bikhchandani and Sharma (2000), manifests when investors follow the majority, often disregarding rational analysis, a trend also confirmed by Ramadan (2015) and Yuwono and Elmadiani (2021), who found that herd behavior substantially influenced stock market investments (Gupta & Kohli, 2021). Numerous studies have been carried out on herd behavior by Arif et al. (2022), Choijil et al. (2022), and Ramadan (2015). Güngör et al. (2022) and Mavruk (2022) further indicated that herding stems from social influence and fear of missing out, making investors prone to irrational decision-making. Overconfidence bias, as noted by Barber and Odean (2001), causes investors to overestimate their knowledge, often leading to excessive trading and market inefficiencies while linked to poor firm performance. Yuwono and Elmadiani (2021) suggested that overconfidence does not always distort decision-making, particularly in crises like COVID-19. The EB, introduced by Thaler, causes investors to overvalue assets they own, leading to suboptimal trading behavior. Recent articles have been conducted on EB, such as Aziz et al. (2024), Kumar and Chaurasia (2024), and Rehman et al. (2024).

Daniel Kahneman and Amos Tversky are two psychologists who first introduced the idea of loss aversion in 1979. Wang and Zhang (2015) suggested that investors tend to be more sensitive to losses than to gains of the same magnitude. Pratiwi and Hariyanto (2024) found strong correlations between loss aversion and decision-making. Regret bias leads investors to avoid actions that might trigger regret, resulting in conservative investment strategies. Nurdinda et al. (2020) demonstrated that regret bias influences young investors' decisions by limiting risk-taking behavior. Nkukpornu et al. (2020) argued that regret-averse investors prefer lower-risk assets like short-term bonds to mitigate emotional distress. Mental accounting bias refers to the tendency of investors to categorize money irrationally, affecting their spending and investment choices. Seiler and Seiler (2010) observed that investors engage in mental accounting to justify holding onto losses, while Santi et al. (2019) described how individuals classify funds differently based on their mental allocation system. Recent studies by Febriana and Armansyah (2024) and Santi et al. (2019) further illustrated how mental accounting bias distorts financial judgment. Collectively, these behavioral biases create significant distortions in decision-making (Annapurna & Basri, 2024), reinforcing the need for investor education to mitigate their adverse effects.

Behavioral Biases, Financial Literacy, and Investment Decisions

Researchers have widely acknowledged that investors with lower financial literacy tend to rely more on heuristics and biases, which often result in suboptimal investment decisions (van Rooij et al., 2011). FL significantly shapes how HB impacts investment choices, as individuals with higher financial literacy are less likely to follow the investment choices of others blindly, thereby reducing the negative effects of herding (Febriana & Armansyah, 2024). Similarly, OB causes investors to overrate their knowledge and decision-making abilities, which has been shown to diminish with higher FL (Vaghela et al., 2023), as more knowledgeable investors are better equipped to assess risks objectively and avoid excessive trading (Adil et al., 2022). Furthermore, FL moderates the relationship between EB and investment decisions by enabling investors to make rational choices rather than overvaluing their assets, thus mitigating irrational decision-making patterns (Rahawarin, 2023). Mental accounting bias, which leads investors to categorize money irrationally and make suboptimal financial decisions,

is less pronounced among individuals with higher FL, as they exhibit better financial planning skills and allocation strategies. Moreover, regret bias, which affects investors by making them overly cautious or leading to poor decision-making due to past experiences, has been shown to weaken when investors have strong financial literacy, as they are more likely to learn from past mistakes and make more informed choices (Bai, 2023). The moderating role of FL in these biases is crucial, as it helps investors make more rational decisions, improves financial well-being, and enhances market stability.

Numerous studies have investigated the direct influence of behavioral biases on investment choice, but fewer have explored FL as a moderating factor, particularly across multiple biases simultaneously. The existing literature suggests that FL can help reduce the adverse effects of biases by enhancing investors' ability to process financial information effectively, reduce cognitive distortions, and improve investment decision-making (Muehlbacher & Kirchler, 2019). Additionally, gender, age, and education levels have been found to influence the extent to which FL moderates these biases, with studies indicating that financial literacy affects behavioral biases more significantly among female investors (Youssef et al., 2021). The findings of prior research highlight the need for further empirical studies to examine the comprehensive role of FL in mitigating various behavioral biases, as well as its implications for policy interventions aimed at enhancing investor education and financial awareness. Given the increasing complexity of financial markets, strengthening financial literacy initiatives could serve as a critical strategy for improving investment outcomes (Vaghela et al., 2023), reducing bias-driven errors, and fostering more rational investment behavior among non-institutional investors (Prasetyo et al., 2023; Silva et al., 2023; Sukamulja et al., 2019).

Gaps Identified in the Review of Literature

In the Indian scenario, a significant research gap in the literature is the in-depth exploration of how diverse behavioral biases affect investment decisions differently across demographics, such as age, gender, and monthly income, serving as a moderating factor. Existing research has typically focused on specific biases like OB and HB, but they often fail to integrate the influence of financial literacy alongside these demographic variables. Enhancing financial education for Indian investors can bridge this gap by giving investors the tools they need to evaluate financial data, identify and overcome prejudices, and make logical, well-informed decisions.

Research Methodology

Research Design

Experimental study serves as the foundation for this research. The present study is based on primary data, and its conclusions can be validated through observation or testing. This study employed a research questionnaire methodology, with the survey distributed online to reach a broad audience.

Data Source and Study Design

The data were collected through retail investors with the support of purposive sampling. The first question asked in the questionnaire was, "Are you a retail investor?" Options have been given such as yes and no. A total of 94% of the respondents were retail investors. Another question asked to respondents, "If your share value gives negative returns over some time, what would you prefer to do ?" Options have been given, such as withdrawing money from the investment, waiting till the loss is recovered and then withdrawing the money, opting to invest more since

the market is comparatively cheaper, reinvesting money in other stocks, investing part of it in alternative strategies, or any other. The highest number of investors responded that they would wait till the loss is recovered and then withdraw money. The present study implies that these investors are affected by biases. Purposive sampling has been used in this study. Nowadays, while many retail investors know reporting, some investors still lack financial literacy. The study is based on biases, and biases influenced their decisions. The survey instrument was designed with the guidance from existing literature. A systematic questionnaire was used to collect responses. The responses were gathered by an effective questionnaire whose reliability has been proven with a Cronbach's alpha score of 0.789 (Tavakol & Dennick, 2011).

The questionnaire was distributed between January 2023 and June 2023 to different groups, including friends, family, channels of investment, students at Amity University, and students at IP University, enrolled in certification courses such as the National Institute of Securities Markets and NSE Academy Certification in Financial Markets (Deshpande et al., 2024). Out of the 403 complete questionnaires, 18 respondents did not meet the criteria for becoming retail investors, and 59 respondents had incomplete information. The final sample size is 326 for the analysis after excluding 77 responses. The questionnaire comprised of 36 questions: Seven questions were demographic, six questions were related to background study, and the remaining questions were based on the statements. There are 23 questions, which are measured on a Likert scale. The survey of 326 responses is based on 23 statements, and following the thumb rule suggests at least 10 times the statements. Thus, the sample size needed to be at least 230 for the analysis, as per the rule of thumb (Hair Jr. et al., 2021).

The questionnaire consists of two sections. The first section gathers demographic information from participants. The second section addressed the factors that are utilized for hypothesis testing. The system is a 5-point rating system that goes from *strongly negative* to *strongly positive* (Hair Jr. et al., 2021). For the analysis, the current study has used structural equation modeling and SPSS.

Research Model

Figure 1 depicts the research model, which consists of six predictor variables and one outcome variable. All six predictor variables are connected to behavioral biases. Behavioral biases include HB, OB, EB, LB, RB, and MB. On the other hand, the outcome parameter is decision-making. The study investigates the connection between BB and their impact on decision-making. Moreover, it analyzes how financial literacy moderates this relationship. The component of BB and the moderating role of literacy has been highlighted in this study. FL is recognized as a moderating variable, significantly influencing retail investors' decisions, as discussed by Prasetyo et al. (2023).

Objectives of the Study

This study aims to examine the influence of behavioral biases on investors' investment decisions. Additionally, it seeks to analyze the moderating effect of financial literacy on the relationship between behavioral biases and investment decisions.

Analysis of Data and Findings

Descriptive Statistics

Table 1 provides the comprehensive demographic details of the respondents, outlining key characteristics of participants whose investment decisions were affected by biases. The study looked at several demographic

Figure 1. ***Research Model***

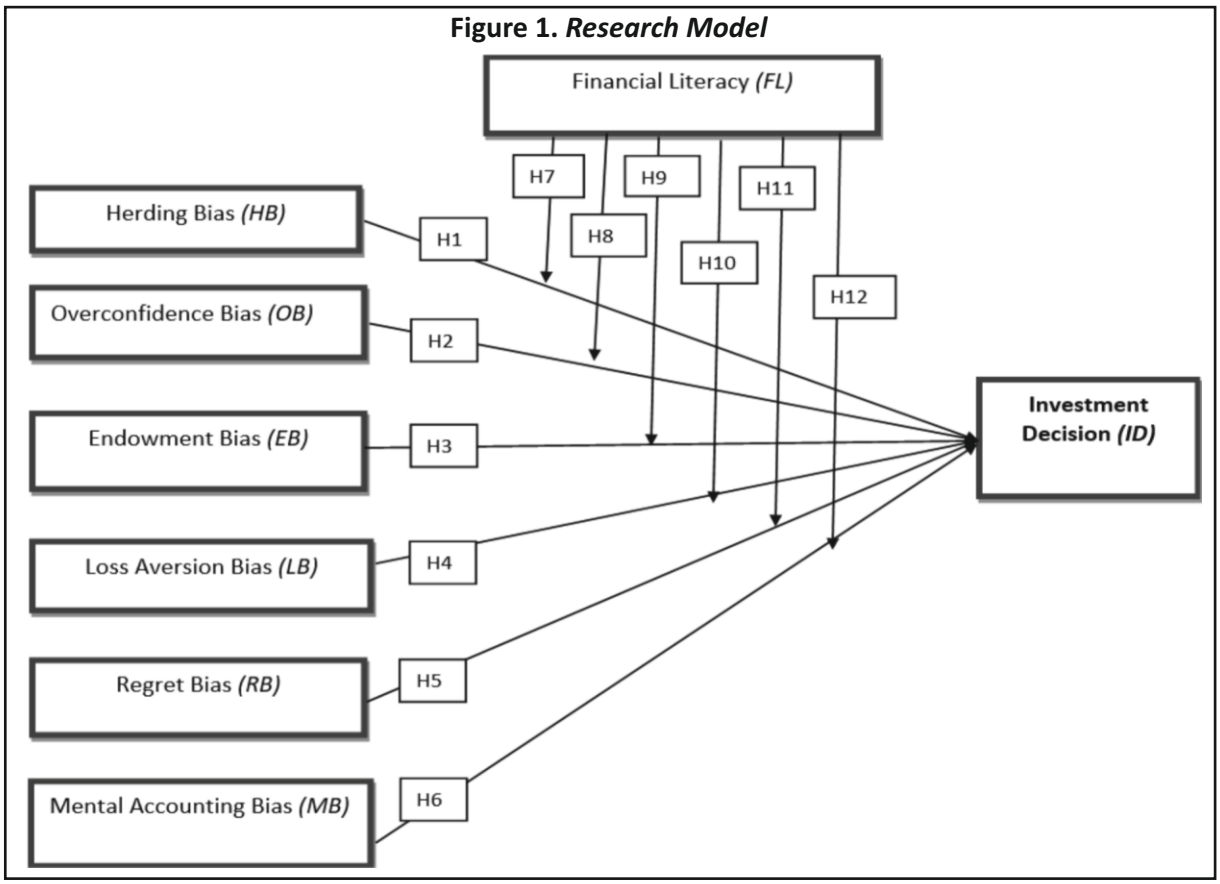


Table 1. ***Descriptive Statistics***

S. No.	Item	Description	Sample	Relative Frequency per Category (%)
1	Retail Investor	Yes	344	94%
		No	18	6%
2	Gender	Male	196	57%
		Female	148	43%
		Others	–	
3	Age	Less than 30 years	234	68%
		30–60 years	78	23%
		Above 60 years	32	9%
4	Education	Matriculate	24	7%
		Intermediate	32	9%
		Graduate	193	56%
		Post-Graduate	78	32%
		Others	17	5%
5	Occupation	Government	7	2%
		Private	19	6%

		Self-Employed	27	8%
		Unemployed	12	4%
		Students	251	73%
		Others	28	7%
6	Monthly- Income	Below ₹ 30,000	237	69%
		₹ 30,000 – ₹ 70,000	69	20%
		₹ 70,000 – ₹ 100,000	31	9%
		Above ₹ 100,000	7	2%
7	Experience	Less than 3 years	216	63%
		3 – 5 years	89	26%
		Above 5 years	39	11%
8.	Average Holding Period	Below 1 year	227	66%
		1 year – 3 years	67	19%
		3 years – 5 years	41	12%
		Above 5 years	9	3%
9.	Expected Rate of Return	Less than 8%	206	60%
		8% – 15%	79	23%
		15% – 20%	36	10%
		Above 20%	23	7%

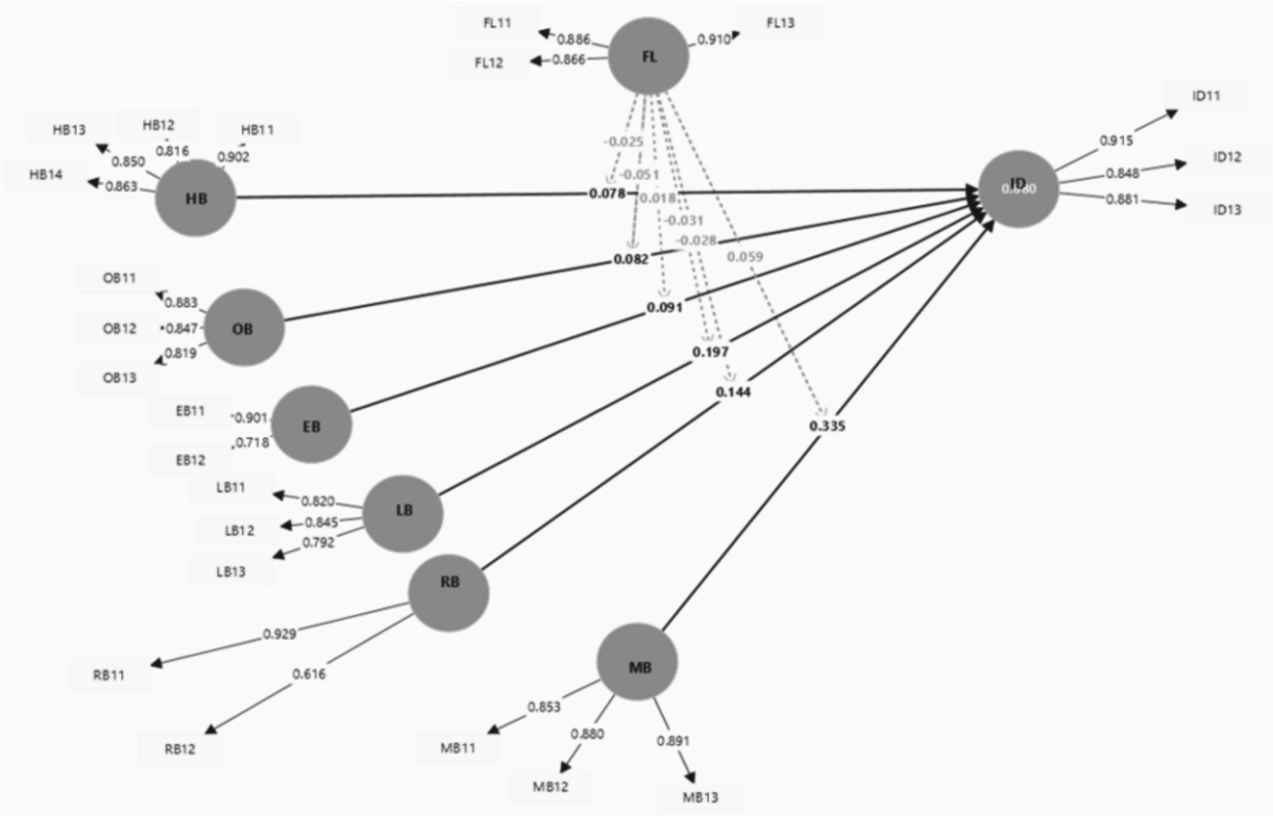
variables, including age, gender, education, occupation, monthly income, experience, average holding period, and expected rate of return. Demographic data was collected through the retail investors. There were 57% males and 43% females, which provides a representative view of the market investor landscape. SPSS analysis showed that more than half of the respondents were less than 30 years old, indicating that they were not mature investors. They did not have an understanding and knowledge of reporting, such as financial reporting and ESG reporting. A significant number of participants were intermediate and graduate students. Most of the participants were students. These students had an interest in learning about the stock market. They had enrolled in certification courses specially focused on stock market education. Nowadays, stock market courses have become a dedicated subject for students, reflecting the growing importance of financial literacy in their academic pursuits. A considerable portion of respondents reported monthly income between ₹ 0 to 30,000. Lower-income investors might take more risks because they feel it is necessary to improve their financial situation.

Regarding experience, 63% of the participants had under three years of experience. Most participants preferred intraday trading or short-term trading, with an investment duration of under one year. Due to their lack of knowledge, their expected rate of return was also less than 8%.

Measurement Model

Figure 2 illustrates the measurement model, depicting how the variables were measured and how they relate to each other. In the measurement model, factor loading, reliability, validity, and model fit are assessed (Agnihotri et al., 2023). A factor loading value greater than 0.5 suggests (Singh et al., 2025) that the variable accounts for over half of the variance in the indicator. For instance, the HB includes four indicators, all with loading values above 0.5, demonstrating their relevance to HB. Similarly, OB, EB, LB, RB, and MB have loading values exceeding 0.5. Financial literacy is a moderating factor and has three indicators, each with a value greater than 0.5. These outer

Figure 2. ***Measurement Model***



Source : Authors' compilations using SmartPLS4 : Showing all factor loadings.

loading values, all above the 0.5 threshold, suggest that each construct adequately explains its corresponding indicators, making the elimination of any statement unnecessary based on these results.

Reliability and Validity

Table 2 demonstrates the results of reliability and convergent validity, which assesses the internal and external consistency of each construct. As a rule, the Cronbach's alpha value ought to be higher than 0.7. Internal reliability

Table 2. ***Reliability and Validity***

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Investment Decision	0.902	0.833	0.676
Financial Literacy	0.795	0.917	0.662
Herding Bias	0.864	0.851	0.692
Overconfidence Bias	0.786	0.884	0.768
Endowment Bias	0.841	0.984	0.832
Loss Aversion Bias	0.784	0.954	0.710
Regret Bias	0.791	0.743	0.791
Mental Accounting Bias	0.712	0.874	0.687

is deemed met when all variable values exceed the predetermined threshold limit. Similarly, composite reliability falls between 0.743 to 0.984 and scores higher than the 0.7 cutoff limit. Hence, this model's reliability is satisfied. AVE falls between 0.662 to 0.832. Each value of average variance extracted (AVE) has a cut-off greater than 0.50; the model is reliable and satisfies the requirements.

Discriminant Validity

Table 3 presents the discriminant validity estimates using the Fornell–Larcker criterion. Discriminant validity ensures that each construct is empirically distinct from the others. It is established when the square root of the AVE for each construct is greater than its correlation with any other construct. In this study, each variable satisfies this condition, demonstrating adequate discriminant validity.

Model Fitness

Table 4 presents the model fit results, indicating the overall goodness of fit. The model is deemed appropriate for hypothesis testing, as the SRMR value is 0.062, which is below the acceptable cutoff of 0.10 (Singh et al., 2024).

Hypotheses Testing

Table 5 presents the results of hypotheses testing, highlighting the moderating effect of financial literacy on the relationship between behavioral biases and investment decisions. Hypotheses testing is divided into two parts:

Table 3. *Discriminant Validity*

Construct	*ID*	*HB*	*OB*	*EB*	*LB*	*RB*	*MB*	*FL*
ID	0.983							
HB	0.740	0.849						
OB	0.514	0.190	0.831					
EB	0.867	0.631	0.389	0.877				
LB	0.856	0.713	0.452	0.826	0.921			
RB	0.832	0.649	0.538	0.850	0.879	0.843		
MB	0.675	0.563	0.291	0.813	0.682	0.529	0.951	
FL	0.456	0.236	0.131	0.711	0.729	0.418	0.719	0.818

Table 4. *Model Fitness*

	Saturated Model	Estimated Model
Standardized Root Mean Square Residual	0.061	0.061
NFI	0.728	0.728

Table 5. *Hypotheses Testing*

Hypotheses	Path	Beta Value	*t*-Statistics	*p*-values	Outcomes
H1	*HB –> ID*	0.012	6.671	0.000	Accepted
H2	*OB –> ID*	0.019	4.261	0.000	Accepted
H3	*EB –> ID*	0.018	4.980	0.000	Accepted

H4	*LB –> ID*	0.027	7.340	0.000	Accepted
H5	*RB –> ID*	0.019	7.582	0.006	Accepted
H6	*MB –> ID*	0.032	10.483	0.000	Accepted
H7 (Moderating)	*FL × HB –> ID*	0.021	2.391	0.014	Accepted
H8 (Moderating)	*FL × OB –> ID*	0.041	4.916	0.018	Accepted
H9 (Moderating)	*FL × EB –> ID*	0.046	3.359	0.000	Accepted
H10 (Moderating)	*FL × LB –> ID*	0.037	3.259	0.001	Accepted
H11 (Moderating)	*FL × RB –> ID*	0.063	6.884	0.038	Accepted
H12 (Moderating)	*FL × MB –> ID*	0.061	3.896	0.013	Accepted

Direct and indirect. Direct hypotheses look at the connection between the input and output variables. Indirect hypotheses use financial literacy as a moderator to test how this variable affects the relationship among the other variables. The present study applies bootstrapping techniques with two-tailed tests. Researchers recommended that the *t*-value should be more than 2, and the *p*-value needs to be lower than 0.05 (Hair Jr. et al., 2021).

↳ **H1 :** HB has a significant influence on investment decisions.

The first hypothesis indicates that HB significantly and positively impacts investment decisions, with a *p*-value of 0.000, β value of 0.012, and *t*-value of 6.671, exceeding the threshold of 1.96 for hypothesis acceptance. Thus, the hypothesis H1 is accepted.

↳ **H2 :** OB has a significant influence on investment decisions.

The finding indicates a significant and positive relationship between overconfidence bias and decision-making. The probability value of 0.000, β value of 0.019, and *t*-value of 4.261 exceed the required 1.96 threshold, leading to the acceptance of H2.

↳ **H3 :** EB has a significant influence on investment decisions.

Empirical results support the claim that EB has a significant impact on decision-making ($t = 4.980$, $\beta = 0.018$, $p < 0.000$). Hence, H3 is accepted.

↳ **H4 :** Loss aversion bias has a significant influence on investment decisions.

And

↳ **H5 :** RB has a significant influence on investment decisions.

The result shows the fourth and fifth hypotheses that LB and RB have meaningful connections with investment choices. So, H4 ($t = 7.340$, $\beta = 0.027$, $p < 0.000$) and H5 ($t = 7.582$, $\beta = 0.019$, $p < 0.000$) have been accepted. Thus, the H4 and H5 are confirmed.

↳ **H6 :** Mental accounting bias has a significant influence on investment decisions.

The final thought of the sixth hypothesis indicates that a *t*-value of 10.483, surpassing the threshold of 2, and a *p*-value under 0.000 confirm that MB significantly impacts decision choices. Thus, H6 is confirmed.

↳ **H7 :** FL moderates the association between HB & investment decisions.

The result reveals that the moderating role of FL between the herding effect and retail investor performance is significant, with a *t*-value of 2.391 and a path coefficient value is less than 5% ($p < 0.014$), respectively. This indicates that investors' education improves, and the influence of HB on ID diminishes.

↳ **H8 :** FL moderates the association between OB and investment decisions.

And

↳ **H9 :** FL moderates the association between EB and investment decisions.

The findings indicate that H8 and H9 show a significant moderating impact of OB and EB on investment decisions. The results show H8 ($t = 4.916, \beta = 0.041, p < 0.018$) and H9 ($t = 3.359, \beta = 0.046, p < 0.000$), supporting H8 and H9 and confirming a meaningful interaction between biases and decisions.

↳ **H10 :** FL moderates the association between loss aversion and investment decisions.

And

↳ **H11 :** FL moderates the association between RB and investment decisions.

The findings indicate a significant moderate association between loss aversion bias and investment decisions as well as RB and investment decisions. H10 ($t = 3.259, \beta = 0.037, p < 0.001$) and H11 ($t = 6.884, \beta = 0.063, p < 0.038$), which support H10 and H11 and confirm a meaningful interaction between biases and decisions. Thus, the H10 and H11 are confirmed.

↳ **H12 :** FL moderates the association between mental accounting bias and investment decisions.

The results reveal that FL significantly moderates the connection between mental accounting bias and investment decisions. When financial education is low, biases have a stronger negative impact on decisions, resulting in irrational choices. Conversely, high FL reduces the impact of these biases, leading to better ID and outcomes as the investors are better equipped to navigate their biases.

Conclusion

The research is based on real-life experiences in developing nations, focusing on the association between biases and decision-making, with financial literacy as a moderating factor. A theoretical framework rooted in behavioral finance literature supports this analysis. Indian investors, particularly young and inexperienced ones, are significantly influenced by biases, often making irrational decisions. The survey reveals that 73% of the respondents were students pursuing graduation or post-graduation degrees. These investors are new to stock market research and frequently rely on rumors, crowd behavior, and trends rather than applying financial knowledge effectively. They tend to avoid losses rather than seek gains. As many are under 30 and have a limited understanding of risk, prioritizing risk management and focusing on short-term investments becomes essential.

The study provides valuable insights into behavioral biases and decision choices. Prior research suggests that investors do not always act rationally and often depend on biases when making financial decisions. Investors typically rely on easily accessible information, exhibit overconfidence, and value their possessions higher than non-possessions. Another key contribution of this study is the influence of financial literacy in regulating the link between biases and decision-making. Individual investors often buy stocks based on recent news, even if unrelated to the company's financial performance. Instead of analyzing financial fundamentals, they may base

decisions on prominent news headlines. The study recommends that investors conduct in-depth financial analysis, diversify investments, and adopt a long-term outlook instead of making impulsive decisions based on short-term market fluctuations.

A notable research gap exists in understanding how behavioral biases influence investment decisions across different demographics, along with the regulatory impact of financial knowledge. Previous studies have examined individual biases but have not extensively explored their interaction with financial literacy and demographic factors in India. Many Indian investors have limited financial education and are influenced by family and social groups. In developing markets, obtaining timely and reliable financial information is challenging, leading to decisions based on outdated or inaccurate data. Students pursuing graduation often lack knowledge of financial concepts such as present value, compounding, inflation's impact on savings, bond valuation, and capital markets. However, interest in stock markets among the youth is growing. Recognizing this, the government has incorporated financial literacy programs into the National Education Policy (NEP). Value-added courses in financial literacy, digital empowerment, and economic awareness are now part of the graduation curricula.

Theoretical, Managerial, and Policy Implications

This theoretical implication expands prospect theory by incorporating behavioral influences while highlighting financial literacy as a moderate factor. It strengthens investor behavior models and fills gaps in behavioral finance with empirical evidence. The implications for managerial personnel based on the study's findings are multifaceted, particularly in the context of managing investor relations, designing financial education programs, and guiding investment strategies. In conclusion, managers are key in reducing the impact of behavioral biases on the decision process through effective communication, education, and guidance. By prioritizing financial literacy and encouraging informed investment strategies, they can contribute to more stable and rational market behavior, particularly among younger and less experienced investors.

The outcome of the research should be significant to policymakers, managers, investors, and shareholders. Policymakers create money management programs and initiatives to enhance literacy and create more knowledgeable investors. This will increase market stability. The research emphasizes the need for investors to recognize behavioral influences and the crucial role of financial awareness in overcoming them. Investors should focus on financial education, long-term strategies, and portfolio diversification. Young and inexperienced investors must prioritize informed decision-making, seek professional advice, and engage in continuous learning.

Limitations of the Study and Scope for Further Research

The complete article has certain drawbacks that warrant acknowledgment. The study has considered a few behavioral biases which influence retail investor decisions. Future research can explore additional behavioral biases and psychological traits that may influence the decisions of investors. The study is based on a specific sample of retail investors, and findings may not be generalizable to institutional investors, professional investors, and other market participants. Future research can explore the moderating effects of additional demographic variables to gain deeper insights into investor behavior across different segments.

Authors' Contribution

Nancy Gupta prepared the manuscript and conducted a statistical analysis using SPSS and SmartPLS.

Dr. Rachita Rana conceptualized the research idea and guided the study. Dr. Deepak Tandon provided critical revisions to enhance the manuscript. All authors approved the final version of the manuscript.

Conflict of Interest

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