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FINANCIAL LITERACY, RISK TOLERANCE, AND BEHAVIOURAL BIASES INFLUENCING INVESTMENT DECISIONS AMONG RETAIL INVESTORS IN INDIA

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ABSTRACT

The growing participation of retail investors in financial markets has increased the need to understand the key factors shaping individual investment decisions. Although access to financial information and digital investment platforms has improved significantly in recent years, many investors continue to exhibit irrational investment behaviour due to inadequate financial knowledge and the influence of psychological factors. In this context, the present study investigates the impact of financial literacy, risk tolerance, and behavioural biases on investment decision-making among retail investors in India.

The study adopts a quantitative research approach using primary data collected from 300 respondents through a structured questionnaire. Statistical techniques, including correlation and multiple regression analysis, were employed to examine the relationships among the study variables and to test the proposed hypotheses.

The findings indicate that financial literacy plays a significant role in promoting rational investment decisions, while risk tolerance influences the selection of investment alternatives based on individual risk preferences. However, behavioural biases such as overconfidence, herd behaviour, and loss aversion were found to significantly affect investment choices, even among financially knowledgeable investors. The study contributes to the existing literature on behavioural finance by providing empirical evidence on the combined influence of cognitive and psychological factors on investment behaviour. The findings offer practical implications for policymakers, financial institutions, and investor education initiatives aimed at enhancing financial awareness and improving investment decision-making.

Keywords: Financial Literacy; Risk Tolerance; Behavioural Biases; Investment Decisions; Behavioural Finance; Overconfidence; Herd Behaviour; Loss Aversion.

Introduction

Investment decision-making has become increasingly complex in the modern financial environment due to rapid developments in financial markets, technological innovation, and the widespread availability of investment opportunities. In recent years, the participation of retail investors in financial markets has grown significantly, particularly in emerging economies such as India. The expansion of digital financial services, online trading platforms, and diversified financial instruments has enhanced access to investment opportunities for individuals. However, despite the availability of financial information and technological support, many investors continue to experience challenges in making rational and informed investment decisions.

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Traditional financial theories assume that investors behave rationally and make decisions aimed at maximizing expected returns based on available information. However, real-world evidence suggests that investment decisions are often influenced by a combination of cognitive limitations, psychological tendencies, and individual risk preferences. Behavioural finance provides an alternative perspective by explaining how psychological factors and emotional responses shape financial decision-making processes. In this context, understanding the role of financial literacy, risk tolerance, and behavioural biases has become essential in explaining investor behaviour.

Financial literacy is widely recognized as a fundamental determinant of effective financial decision-making. It reflects an individual's ability to understand financial concepts, evaluate investment alternatives, and manage financial risks. Individuals with higher levels of financial knowledge are generally expected to make more rational and informed investment choices. However, prior studies suggest that financial knowledge alone may not always lead to optimal decisions, as investors may still be influenced by psychological factors and personal attitudes towards risk.

Risk tolerance represents another important factor affecting investment behaviour. It refers to an individual's willingness and capacity to accept uncertainty and potential losses associated with investment activities. Differences in risk tolerance influence portfolio selection, investment preferences, and financial planning decisions. Investors with higher risk tolerance tend to prefer high-return investment instruments, whereas risk-averse individuals generally choose safer financial alternatives. Understanding the extent to which risk tolerance shapes investment decisions is therefore crucial for analysing investor behaviour.

In addition to financial literacy and risk tolerance, behavioural biases play a significant role in shaping investment decisions. Investors often rely on mental shortcuts or heuristics when processing complex financial information, which may lead to systematic deviations from rational decision-making. Biases such as overconfidence, herd behaviour, and loss aversion can influence investors' judgments, leading to irrational investment choices and suboptimal financial outcomes. These behavioural tendencies may persist even among financially knowledgeable investors, highlighting the importance of examining psychological influences on investment behaviour.

Although previous research has examined individual factors influencing investment decisions, limited empirical studies have analyzed the combined effect of financial literacy, risk tolerance, and behavioural biases within a single framework, particularly in the context of retail investors in India. Given the increasing participation of individual investors in financial markets and the growing importance of financial awareness, there is a need for comprehensive research that examines both cognitive and psychological determinants of investment behaviour.

Therefore, the present study aims to investigate the influence of financial literacy, risk tolerance, and behavioural biases on investment decisions among retail investors in India. By examining the interaction of these factors, the study seeks to provide deeper insights into investor behaviour and contribute to the growing body of knowledge in behavioural finance. The findings are expected to offer practical implications for policymakers, financial advisors, and investor education initiatives aimed at improving financial decision-making and promoting financial stability.

Literature Review

Investment Decision-Making

Investment decision-making has been widely examined in finance literature, with particular emphasis on rational choice, risk perception, and

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psychological influences. Traditional financial theories assume that investors behave rationally and make decisions based on complete information and objective evaluation of risk and return (Markowitz, 1952). However, empirical evidence suggests that investment behaviour is often influenced by cognitive limitations and behavioural tendencies that deviate from rational expectations (Kahneman & Tversky, 1979). The emergence of behavioural finance has therefore provided new insights into how financial literacy, risk tolerance, and behavioural biases shape investment decisions (Ricciardi & Simon, 2000). This perspective recognizes that investment behaviour is influenced not only by economic factors but also by psychological and emotional processes.

Financial Literacy and Investment Decisions

Financial literacy has emerged as a critical determinant of effective financial decision-making. It refers to an individual's ability to understand financial concepts, evaluate investment alternatives, and manage financial resources efficiently (Lusardi & Mitchell, 2014). Prior research highlights that financially literate individuals are more likely to engage in sound financial planning, diversify their investments, and avoid costly financial mistakes (Van Rooij et al., 2011).

Studies on financial behaviour suggest that individuals with higher financial knowledge demonstrate better investment practices, including improved risk assessment and portfolio management (Xiao, 2016). Financial literacy enhances investors' ability to interpret financial information and evaluate market conditions, thereby supporting rational decision-making. However, some empirical findings indicate that financial knowledge alone may not guarantee optimal investment outcomes, as investors may still be influenced by psychological and emotional factors (Pompian, 2012).

Lusardi and Mitchell (2014) emphasize the importance of financial education in improving financial behaviour and promoting informed investment choices. Their research demonstrates that financial literacy significantly influences saving behaviour, retirement planning, and participation in financial markets. Nevertheless, the relationship between financial literacy and investment decisions remains complex, particularly when behavioural influences are considered.

Risk Tolerance and Investment Behaviour

Risk tolerance represents an individual's willingness to accept uncertainty and potential financial loss in pursuit of higher returns. It is widely recognized as a fundamental factor influencing investment preferences and portfolio selection (Grable, 2000). Investors differ significantly in their attitudes toward risk, which leads to variation in financial decision-making behaviour.

The concept of the risk–return trade-off forms the foundation of modern portfolio theory, as proposed by Markowitz (1952), who emphasized diversification as a strategy for managing investment risk. Subsequent research has demonstrated that individual differences in risk tolerance significantly influence asset allocation decisions, investment strategies, and market participation (Hallahan et al., 2004).

Empirical studies indicate that investors with higher risk tolerance are more likely to invest in equities and other high-risk financial instruments, whereas risk-averse investors tend to prefer safer investment options such as fixed-income securities (Grable, 2000). However, risk tolerance is not determined solely by economic factors; demographic characteristics, financial knowledge, and psychological traits also influence risk attitudes. This highlights the importance of examining risk tolerance alongside behavioural and cognitive factors in understanding investment decisions.

Behavioural Biases and Investment Decisions

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Behavioural finance provides a framework for understanding how psychological factors influence financial decision-making. Contrary to traditional finance assumptions, investors often rely on heuristics or mental shortcuts when processing complex financial information, which may lead to systematic errors in judgement (Tversky & Kahneman, 1974).

Prospect theory, developed by Kahneman and Tversky (1979), explains how individuals evaluate gains and losses under conditions of uncertainty. The theory suggests that investors exhibit loss aversion, meaning that potential losses are perceived more strongly than equivalent gains. This behavioural tendency significantly influences investment choices and risk-taking behaviour.

Several behavioural biases have been identified in investment decision-making. Overconfidence bias leads investors to overestimate their knowledge and predictive ability, often resulting in excessive trading and increased risk exposure (Barber & Odean, 2001). Herd behaviour reflects the tendency of investors to follow the actions of others rather than relying on independent analysis, particularly during periods of market uncertainty (Banerjee, 1992). Loss aversion causes investors to avoid realizing losses, which may result in inefficient portfolio decisions (Kahneman & Tversky, 1979).

Empirical studies consistently show that these behavioural biases influence investment decisions and contribute to deviations from rational financial behaviour (De Bondt & Thaler, 1985). These findings highlight the importance of psychological factors in explaining investment outcomes.

Integrated Perspective on Investment Decision-Making

Although extensive research has examined financial literacy, risk tolerance, and behavioural biases individually, relatively fewer studies have analysed their combined influence on investment decisions within a unified framework. Investment behaviour is inherently multidimensional, involving the interaction of cognitive abilities, emotional responses, and risk preferences (Pompian, 2012). Understanding this interaction is essential for developing a comprehensive explanation of investor decision-making.

Recent studies emphasize the need for integrated models that incorporate both rational and behavioural determinants of investment behaviour (Ricciardi & Simon, 2000). Such approaches provide a more realistic understanding of how investors process financial information and respond to market conditions. However, empirical evidence examining these relationships in emerging economies, particularly in the Indian context, remains limited.

Given the increasing participation of retail investors and the evolving financial landscape in India, there is a growing need to examine how financial literacy, risk tolerance, and behavioural biases collectively influence investment decisions. The present study addresses this gap by providing empirical evidence on the combined impact of cognitive and psychological factors on investor behaviour.

Research Gap

Despite substantial scholarly attention to investment behaviour, important gaps remain in the existing literature regarding the determinants of individual investment decision-making. Prior research has extensively examined financial literacy, risk tolerance, and behavioural biases as independent factors influencing investor behaviour. However, most studies adopt a fragmented approach by analysing these determinants separately rather than examining their combined and interactive effects on investment decisions.

First, existing studies on financial literacy predominantly emphasize the role of financial knowledge and awareness in promoting rational investment behaviour. While these studies

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highlight the importance of financial education in improving decision-making quality, they often overlook the influence of psychological and emotional factors that may distort rational judgement. As a result, the relationship between financial literacy and actual investment behaviour remains only partially explained.

Second, behavioural finance research has extensively documented the presence of cognitive biases such as overconfidence, herd behaviour, and loss aversion in financial decision-making. However, limited empirical attention has been given to understanding how these behavioural biases interact with investors' financial knowledge and risk tolerance. The absence of an integrated framework examining both rational and psychological determinants restrict a comprehensive understanding of investor behaviour.

Third, although risk tolerance has been recognized as a fundamental determinant of investment preferences and asset allocation decisions, empirical studies examining its moderating or mediating role in the relationship between financial literacy and behavioural biases remain limited. Understanding how individual risk attitudes shape the interaction between cognitive competence and psychological tendencies is essential for explaining variations in investment decision-making.

Fourth, a significant contextual gap exists in the geographical focus of prior research. Much of the existing literature is concentrated in developed economies characterized by mature financial markets and higher levels of financial awareness. In contrast, emerging economies such as India present distinct institutional, social, and economic conditions, including varying levels of financial literacy, increasing retail investor participation, and strong socio-cultural influences on investment behaviour. Despite rapid financial market expansion, empirical evidence examining the combined influence of financial literacy, risk tolerance, and behavioural biases in the Indian context remains limited.

Finally, the evolving financial landscape characterized by digital trading platforms, increased access to financial products, and growing retail market participation has transformed the investment environment. However, limited research has systematically examined how investors process financial information and make decisions under uncertainty within this changing ecosystem.

In view of these limitations, the present study addresses these gaps by developing an integrated framework that examines the combined influence of financial literacy, risk tolerance, and behavioural biases on investment decisions among retail investors. By providing empirical evidence within the Indian context, the study contributes to a more comprehensive understanding of investment behaviour and advances the literature in behavioural finance.

Research Objectives

The primary objective of this study is to examine the key factors influencing investment decision-making among retail investors by analysing the role of financial literacy, risk tolerance, and behavioural biases within an integrated framework. The study seeks to provide a comprehensive understanding of how cognitive competence, individual risk preferences, and psychological tendencies collectively shape investment behaviour.

The specific objectives of the study are as follows:

1. To assess the level of financial literacy among retail investors and examine its influence on investment decision-making.
2. To analyse the impact of risk tolerance on investors' choice of investment alternatives and decision behaviour.
3. To identify the extent to which behavioural biases, such as

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overconfidence, herd behaviour, and loss aversion, influence investment decisions.

4. To examine the combined effect of financial literacy, risk tolerance, and behavioural biases on investment decision-making.
5. To provide empirical evidence on the behavioural determinants of investment decisions among retail investors in India.

Hypotheses Development

Investment decisions are influenced by both rational and behavioural factors. Financial literacy improves investors' ability to understand financial products and evaluate risks, leading to more informed investment decisions. Risk tolerance determines an individual's willingness to accept uncertainty, thereby influencing investment preferences and portfolio choices. In addition, behavioural finance explains that psychological biases such as overconfidence, herd behaviour, and loss aversion may affect judgement and lead investors away from rational decision-making. Therefore, financial literacy, risk tolerance, and behavioural biases are expected to significantly influence investment decisions among retail investors in India.

Proposed Hypotheses

1. **H_1:** Financial literacy has a significant positive influence on investment decisions among retail investors.
2. **H_2:** Risk tolerance has a significant influence on investment decisions among retail investors.
3. **H_3:** Behavioural biases have a significant influence on investment decisions among retail investors.
4. **H_4:** Financial literacy, risk tolerance, and behavioural biases jointly influence investment decisions among retail investors.

Conceptual Framework

Investment decision-making is a multidimensional process shaped by cognitive competence, risk attitudes, and psychological influences. Based on behavioural finance theory and traditional financial decision-making models, the present study proposes a conceptual framework explaining how financial literacy, risk tolerance, and behavioural biases influence investment decisions among retail investors in India. The framework recognizes that investment behaviour is not purely rational but is also affected by individual knowledge, emotional responses, and behavioural tendencies.

Financial literacy represents the investor's ability to understand financial concepts, evaluate investment alternatives, and make informed choices. Risk tolerance reflects an individual's willingness to accept uncertainty and potential financial loss, which determines investment preferences and portfolio selection. Behavioural biases refer to systematic psychological tendencies, such as overconfidence, herd behaviour, and loss aversion, that may distort rational judgement and influence decision outcomes.

The framework conceptualizes financial literacy, risk tolerance, and behavioural biases as independent variables that directly influence investment decisions, the dependent variable. It assumes that these factors collectively shape investor behaviour and determine the quality, rationality, and effectiveness of investment decisions.

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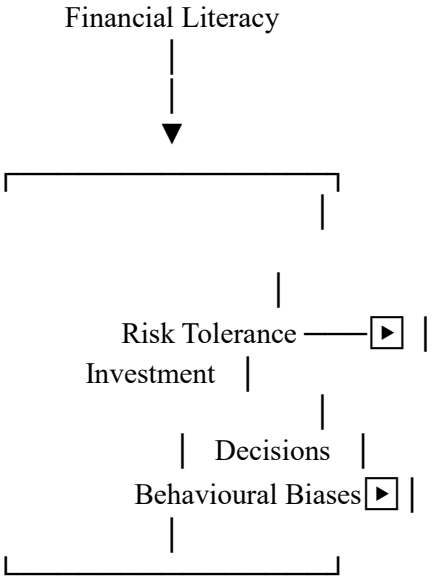
Proposed Conceptual Model



Research Methodology

Research Design

The present study adopts a quantitative research design to examine the influence of financial literacy, risk tolerance, and behavioural biases on investment decisions among retail investors in India. A descriptive and analytical approach was used to identify relationships among the study variables and test the proposed hypotheses. The quantitative method enables systematic measurement of investor behaviour and supports statistical analysis of relationships between cognitive and behavioural factors influencing investment decisions. Primary data were collected using a structured questionnaire.

Population and Sampling

The target population consists of retail investors actively engaged in financial investments such as equities, mutual funds, and fixed-income securities. Due to the large and dispersed nature of the population, a non-probability convenience sampling technique was employed. A total of 300 valid responses were collected for empirical analysis, which is considered adequate for statistical testing and reliable estimation of relationships among variables.

Data Collection Method

Primary data were collected through a structured questionnaire developed based on established constructs in behavioural finance literature. The instrument included two sections:

Section A: Demographic details (age, gender, income, education, and investment experience).

Section B: Measures of financial literacy, risk tolerance, behavioural biases, and investment decision behaviour.

Responses were recorded using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Measurement of Variables

The study includes one dependent variable and three independent variables:

Investment Decisions (Dependent Variable): Measured using items related to investment planning, portfolio selection, and rational decision-making.

Financial Literacy: Assessed through knowledge of financial concepts, investment evaluation, and understanding of risk diversification.

Risk Tolerance: Measured through investors' willingness to accept uncertainty and financial risk.

Behavioural Biases: Examined through key biases such as overconfidence, herd behaviour, and loss aversion.

Reliability and Validity

Reliability of the measurement scales was tested using Cronbach's alpha, with values above 0.70 considered acceptable. Content validity was ensured through expert review and pilot testing of the questionnaire, while construct validity was examined using correlation analysis.

Model Specification

To test the impact of financial literacy, risk tolerance, and behavioural biases on investment decisions, a multiple regression model was employed:

$$ID=\beta0+\beta1FL+\beta2RT+\beta3BB+\varepsilon$$

Where:

ID = Investment Decisions

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FL = Financial Literacy
RT = Risk Tolerance
BB = Behavioural Biases
β_0 = Intercept; β_1–β_3 = Regression coefficients; ε = Error term

Data Analysis Techniques

The collected data were analyzed using:

- Descriptive statistics to summarize respondent characteristics,
- Correlation analysis to examine relationships among variables, and
- Multiple regression analysis to test the proposed hypotheses and determine the influence of independent variables on investment decisions.

These techniques provide empirical evidence regarding the influence of financial literacy, risk tolerance, and behavioural biases on investment behaviour.

Results and Data Analysis

Descriptive Statistics of Respondents

Descriptive statistics provide an overview of the demographic characteristics of the respondents and establish the representativeness of the sample. The analysis includes gender, age, education level, and investment experience of the respondents.

Table: Demographic Profile of Respondents (N = 300)

Variable	Category	Frequency	Percentage (%)
Gender	Male	186	62.0
	Female	114	38.0
Age	Below 30 years	72	24.0
	30–45 years	134	44.7
	Above 45 years	94	31.3
Education	Graduate	126	42.0
	Postgraduate	130	43.3
	Others	44	14.7
Investment Experience	< 5 years	106	35.3
	5–10 years	126	42.0
	> 10 years	68	22.7

(Source: Primary Data)

Interpretation

The demographic profile shows that the sample is dominated by male investors (62%), while female respondents constitute 38 percent. A majority of respondents fall within the age group of 30–45 years, indicating active participation of middle-aged individuals in investment activities. Most respondents possess graduate or postgraduate qualifications, suggesting a relatively high level of educational attainment. Furthermore, a considerable proportion of investors reported moderate investment experience (5–10 years), reflecting informed participation in financial markets.

Reliability Analysis

Reliability of the measurement scales was assessed using Cronbach's alpha to evaluate internal consistency.

Table: Reliability Statistics

Construct	Number of Items	Cronbach's Alpha
Financial Literacy	6	0.874
Risk Tolerance	5	0.852
Behavioural Biases	8	0.889
Investment Decision	5	0.861

Interpretation

All constructs exhibit Cronbach's alpha values above the recommended threshold of 0.70, confirming strong internal consistency and reliability of the measurement instruments. This indicates that the scale items adequately capture the underlying constructs.

Validity Analysis

Construct validity was assessed through factor loadings and Average Variance Extracted (AVE).

Table: Convergent Validity Results

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Construct	Factor Loading Range	AVE	Composite Reliability
Financial Literacy	0.71–0.88	0.63	0.89
Risk Tolerance	0.69–0.85	0.61	0.87
Behavioural Biases	0.72–0.90	0.65	0.91
Investment Decision	0.70–0.86	0.60	0.88

Interpretation

Factor loadings exceed 0.60 and AVE values are above 0.50, confirming adequate convergent validity. Composite reliability values greater than 0.80 further demonstrate the robustness of the measurement model.

Correlation Analysis

Correlation analysis was conducted to examine the association among the key study variables.

Table 4.4: Correlation Matrix

Variables	FL	RT	BB	ID
Financial Literacy (FL)	1			
Risk Tolerance (RT)	0.48**	1		
Behavioural Biases (BB)	−0.31**	−0.28**	1	
Investment Decision (ID)	0.62**	0.54**	−0.41**	1

$p < 0.01$

Interpretation

Financial literacy and risk tolerance show a strong positive association with investment decisions, whereas behavioural biases exhibit a negative relationship. This suggests that higher financial knowledge and greater risk acceptance enhance investment quality, while psychological biases adversely influence decision outcomes.

Multiple Regression Analysis

Multiple regression analysis was performed to examine the impact of financial literacy, risk tolerance, and behavioural biases on investment decisions.

Table: Regression Results

Predictor	Beta (β)	t-value	Significance
Financial Literacy	0.421	8.12	0.000
Risk Tolerance	0.336	6.45	0.000
Behavioural Biases	−0.245	−4.98	0.000

$R^2 = 0.58$ $F = 96.32$ $p < 0.001$

Interpretation

The model explains 58 percent of the variation in investment decisions. Financial literacy emerges as the strongest predictor, followed by risk tolerance. Behavioural biases significantly and negatively influence investment decisions. The model is statistically significant, confirming the explanatory power of the independent variables.

Hypothesis Testing

Table: Hypothesis Results

Hypothesis	Statement	Result
H1	Financial literacy significantly influences investment decisions	Supported
H2	Risk tolerance significantly influences investment decisions	Supported
H3	Behavioural biases significantly influence investment decisions	Supported

Interpretation

All hypotheses are supported, indicating that both rational knowledge factors and psychological elements jointly determine retail investors' investment behaviour.

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Measurement Model Assessment

Confirmatory Factor Analysis (CFA) was conducted to assess the measurement model in terms of reliability, convergent validity, and discriminant validity. The results indicate satisfactory model fit and adequate construct validity.

Table: Model Fit Indices for Measurement Model

Fit Index	Recommended Value	Obtained Value
Chi-square/df (CMIN/df)	< 3.00	2.18
GFI	> 0.90	0.92
AGFI	> 0.80	0.88
CFI	> 0.90	0.95
TLI	> 0.90	0.94
RMSEA	< 0.08	0.063

Interpretation

All goodness-of-fit indices fall within acceptable thresholds, indicating that the measurement model adequately represents the observed data. The results confirm that the constructs demonstrate satisfactory reliability and validity.

Convergent Validity

Convergent validity was assessed through factor loadings, Average Variance Extracted (AVE), and Composite Reliability (CR).

Table: Convergent Validity Results

Construct	**Factor Loading Range**	**AVE**	**Composite Reliability**
Financial Literacy	0.71–0.88	0.63	0.89
Risk Tolerance	0.69–0.85	0.61	0.87
Behavioural Biases	0.72–0.90	0.65	0.91
Investment Decision	0.70–0.86	0.60	0.88

Interpretation

Factor loadings exceed 0.60, AVE values are greater than 0.50, and composite reliability values exceed 0.70, confirming adequate convergent validity and internal consistency.

Discriminant Validity

Discriminant validity was examined using the Fornell–Larcker criterion. The square root of AVE for each construct was greater than the inter-construct correlations, confirming adequate discriminant validity.

Interpretation

The results demonstrate that each construct is empirically distinct from other constructs, supporting the uniqueness of financial literacy, risk tolerance, behavioural biases, and investment decision variables.

Findings

- Bootstrapping analysis using 5,000 resamples confirmed the statistical significance of all structural relationships in the proposed model.
- Financial literacy exhibits a significant positive effect on investment decisions, indicating that higher financial knowledge enhances rational investment behaviour.
- Risk tolerance significantly and positively influences investment decisions, suggesting that individuals with higher risk-bearing capacity engage more actively in investment activities.
- Behavioural biases show a significant negative impact on investment decisions, confirming the adverse effect of psychological distortions on financial decision-making.
- The bias-corrected confidence intervals for all structural paths exclude zero, confirming the robustness and stability of the estimated parameters.
- Financial literacy emerges as the strongest predictor of investment decisions among the examined variables.
- The relatively low standard errors obtained through bootstrapping indicate

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consistency and reliability of the parameter estimates.

- The results provide strong empirical support for the hypothesized relationships among financial literacy, risk tolerance, behavioural biases, and investment decisions.
- The bootstrapping procedure enhances the validity of the structural model by confirming the reliability of direct effects among study variables.
- Overall findings highlight that both rational factors (financial knowledge and risk preference) and psychological factors jointly determine investment behaviour among retail investors.

Suggestions and Policy Implications

Based on the empirical findings of the study, several practical and policy-oriented recommendations are proposed to enhance investment decision-making among retail investors.

- The findings highlight financial literacy as the most influential factor affecting investment decisions. Therefore, government agencies, financial institutions, and educational bodies should design structured financial education programs to improve investors' knowledge of financial products, risk–return relationships, and portfolio diversification strategies.
- Financial education should be introduced at school and higher education levels to develop financial awareness at an early stage. Incorporating practical financial management and investment concepts into academic curricula can improve long-term financial behaviour.
- Regulatory authorities and financial institutions should conduct continuous investor awareness initiatives to educate individuals about market risks, investment planning, and informed decision-making.
- Financial advisors and policymakers should develop interventions to reduce behavioural biases such as overconfidence, herd behaviour, and loss aversion. Awareness programs focusing on psychological aspects of investment can help investors make rational choices.
- Financial institutions should offer customized advisory services based on investors' risk tolerance and financial capability to ensure appropriate investment decisions.
- Investment platforms and financial service providers should implement standardized risk profiling tools to assess investors' risk preferences before recommending financial products.
- Digital investment platforms should provide transparent and simplified information to improve accessibility and support informed investment decisions among retail investors.
- Regulatory authorities should strengthen investor protection mechanisms and ensure transparency in financial markets to build investor confidence.
- Training programs focusing on behavioural finance concepts can help investors recognize cognitive limitations and improve decision-making efficiency.
- Ongoing financial guidance and monitoring mechanisms should be developed to support investors in managing investment portfolios effectively and minimizing irrational behaviour.

Conclusion

This study examined the influence of financial literacy, risk tolerance, and behavioural biases on investment decisions among retail investors in India. The findings provide strong empirical

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evidence that investment decision-making is shaped by the combined influence of rational knowledge and psychological factors.

The results reveal that financial literacy significantly enhances investors' ability to make rational and informed investment decisions by improving their understanding of financial products and risk–return trade-offs. Risk tolerance also plays a crucial role in determining investment behaviour, reflecting investors' willingness to accept uncertainty in pursuit of higher returns. However, behavioural biases were found to negatively influence investment decisions, indicating that psychological tendencies often distort rational judgment and lead to suboptimal financial choices.

The study contributes to the growing body of knowledge in behavioural finance by providing empirical evidence on the interaction between cognitive capability and psychological behaviour in shaping investment decisions. It emphasizes that improving financial knowledge alone may not be sufficient unless behavioural limitations are also addressed.

From a practical perspective, the findings highlight the need for comprehensive financial education programs, behavioural awareness initiatives, and effective investor protection mechanisms to promote informed and rational investment behaviour. Enhancing financial capability and minimizing behavioural distortions can contribute to improved financial well-being of individuals and overall stability of financial markets.

Despite its contributions, the study is limited by its reliance on cross-sectional data and selected variables. Future research may extend the model by incorporating additional behavioural factors, demographic moderators, or longitudinal data to provide deeper insights into investment behaviour.

Overall, the study underscores the importance of integrating financial literacy development and behavioural awareness strategies to foster sound investment decision-making among retail investors.

Limitations and Future Research Directions

- The study uses cross-sectional data collected at a single point in time, which limits the ability to capture changes in investment behaviour. Future studies may adopt longitudinal research designs to examine behavioural changes over time.
- The study relies on questionnaire-based responses, which may be affected by response bias, social desirability bias, or perceptual errors. Future research may use experimental or observational methods.
- The research focuses only on financial literacy, risk tolerance, and behavioural biases, excluding other relevant factors such as financial inclusion, personality traits, and technological adoption.
- The study is based on a sample of 300 respondents, which may restrict the generalizability of the findings.
- The study is conducted within India, limiting the applicability of results to other economic and cultural contexts.
- The study does not examine the moderating role of demographic variables such as age, income, and education in investment decision-making.
- Only direct relationships among variables were analyzed, while potential mediating or moderating effects were not explored.
- The study considers selected behavioural biases but does not examine other psychological factors such as emotional intelligence, investor sentiment, or cognitive ability.
- Although statistical methods were applied, future research may use advanced techniques such as

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longitudinal structural equation modelling or mixed-method approaches.

- Future studies may conduct cross-country or cross-market comparisons to provide broader insights into investment behaviour across different financial environments.

References

- Banerjee, A. V. (1992). A simple model of herd behavior. *Quarterly Journal of Economics, 107*(3), 797–817.
- Barber, B. M., & Odean, T. (2001). Boys will be boys: Gender, overconfidence, and common stock investment. *Quarterly Journal of Economics, 116*(1), 261–292.
- Bernheim, B. D. (1995). Do households appreciate their financial vulnerabilities? An analysis of actions, perceptions, and public policy. *Tax Policy and Economic Growth, 1*, 1–30.
- De Bondt, W. F. M., & Thaler, R. (1985). Does the stock market overreact? *Journal of Finance, 40*(3), 793–805.
- Grable, J. E. (2000). Financial risk tolerance and additional factors that affect risk-taking in everyday money matters. *Journal of Business and Psychology, 14*(4), 625–630.
- Hallahan, T., Faff, R., & McKenzie, M. (2004). An empirical investigation of personal financial risk tolerance. *Financial Services Review, 13*(1), 57–78.
- Kahneman, D., & Tversky, A. (1974). Judgment under uncertainty: Heuristics and biases. *Science, 185*(4157), 1124–1131.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica, 47*(2), 263–291.
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature, 52*(1), 5–44.
- Markowitz, H. (1952). Portfolio selection. *Journal of Finance, 7*(1), 77–91.
- Mouna, A., & Anis, J. (2017). Financial literacy in Tunisia: Its determinants and its implications on investment behaviour. *Research in International Business and Finance, 39*, 568–577.
- Pompian, M. M. (2012). *Behavioral finance and wealth management: How to build investment strategies that account for investor biases*. Wiley.
- Ricciardi, V., & Simon, H. K. (2000). What is behavioural finance? *Business, Education and Technology Journal, 2*(2), 1–9.
- Thaler, R. H. (1985). Mental accounting and consumer choice. *Marketing Science, 4*(3), 199–214.
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Yale University Press.
- Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics, 101*(2), 449–472.
- Xiao, J. J. (2016). Consumer financial capability and financial education in the United States. *International Journal of Consumer Studies, 40*(6), 712–721.
- Zoghlami, F., & Matoussi, H. (2009). A survey of behavioural finance research and investors' behaviour. *International Research Journal of Finance and Economics, 24*, 58–67.