

Impact Of Behavioral Biases On Investment Decision-Making Among Retail Investors In Bengaluru

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ABSTRACT

Behavioral biases play an important role in shaping retail investors' investment decisions, particularly in technology-driven financial markets. This study examines behavioural biases, financial literacy, investor psychology and technology-related factors among retail investors in Bengaluru. A descriptive quantitative design was adopted and primary data were collected from 251 retail investors through convenience sampling using a structured questionnaire. The study focuses on overconfidence, loss aversion, herding and anchoring, along with financial literacy, digital investment platforms, market information and emotional responses. Data were analysed using descriptive statistics, Cronbach's Alpha, Bayesian correlation, regression analysis and One-Way ANOVA. Cronbach's Alpha was 0.708 for 31 items. The Bayesian correlation showed a weak positive relationship between financial literacy and the ability to mitigate behavioural biases (posterior mean = 0.245; 95% credible interval = 0.128–0.358). The regression model was statistically significant ($F = 4.426$, $p = 0.005$), while emotional stability during market volatility was a significant predictor ($p = 0.024$). Digital sources and psychological factors were not individually significant. ANOVA showed no significant age-group differences. The findings highlight the need to combine financial literacy with behavioural awareness and emotional discipline to support rational investment decisions.

Keywords: Behavioural Finance, Behavioural Biases, Retail Investors, Investment Decision-Making, Financial Literacy, Investor Psychology, Technology-Driven Markets.

INTRODUCTION

Investment decisions are influenced not only by financial information but also by psychological and behavioural factors. The rapid growth of digital trading platforms has made investing faster and more accessible, especially among young retail investors. However, easy access to information and instant execution can also increase emotionally driven decisions.

Behavioural finance explains deviations from purely rational decision-making. Overconfidence, loss aversion, herding and anchoring can affect how investors interpret information, assess risk and respond to market movements. Financial literacy may help investors understand risk and control some behavioural errors.

Bengaluru provides a relevant setting because of its technology-oriented population and widespread use

of digital investment applications. This study therefore examines behavioural, financial, psychological and technology-related influences on retail investment decisions.

OBJECTIVES OF THE STUDY

To examine how behavioural biases affect retail investors' investment decision-making in modern technology-driven financial markets in Bengaluru.

To investigate the relationship between behavioural biases, investor awareness, financial literacy and investment decision-making among retail investors in Bengaluru.

To develop and empirically test a framework analysing the combined influence of financial literacy, investor psychology and behavioural biases on investment decision-making.

Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

To examine whether demographic characteristics influence investment-related perceptions and behaviour.

REVIEW OF LITERATURE

Barber & Odean (2001): Overconfidence can lead individual investors to trade excessively and reduce investment performance.

Kahneman & Tversky (1979): Prospect Theory explains loss aversion and investors' stronger response to losses than equivalent gains.

Boda & Sunitha (2018): Emotions, overconfidence and herd behaviour significantly influence retail investment decisions.

Van Rooij, Lusardi & Alessie (2011): Higher financial literacy is associated with stock-market participation, diversification and better financial decisions.

Lusardi & Mitchell (2014): Financial knowledge supports rational investment choices, long-term wealth accumulation and risk management.

Divanoğlu & Bağcı (2018): Psychological biases and emotional reactions influence portfolio choices.

Kulshrestha & Gupta (2025): Digital investment applications increased retail participation while also amplifying emotional trading and herding.

Verma & Sharma (2026): Real-time digital updates and notifications can encourage faster trading and overconfidence.

RESEARCH GAP

Limited research links behavioural biases with investor awareness and financial literacy among modern retail investors.

Existing studies often examine behavioural biases, financial literacy and technology factors separately rather than in an integrated framework.

Limited evidence exists on how behavioural biases operate among retail investors in technology-driven financial markets in Bengaluru.

THEORETICAL FOUNDATION

Theory	Author(s)	Application
Behavioural Finance Theory	Shefrin; Barber & Odean	Explains overconfidence, herding, loss aversion and anchoring in investment decisions.
Prospect Theory	Kahneman & Tversky	Explains asymmetric responses to gains and losses and loss aversion.
Heuristic Theory	Behavioural finance literature	Explains mental shortcuts and reference points used in processing market information.
Modern Portfolio Theory	Markowitz (1952)	Supports diversification, risk assessment and portfolio allocation.

RESEARCH METHODOLOGY

Component	Details
Design	Descriptive, quantitative

Data	Primary data
Population	Retail investors residing and investing in Bengaluru
Sampling	Convenience sampling
Sample size	251 respondents
Instrument	Structured questionnaire with five-point response scales
Statistical tools	Descriptive statistics, Cronbach's Alpha, Bayesian correlation, regression and One-Way ANOVA
Software	IBM SPSS Statistics

DATA ANALYSIS AND KEY RESULTS

Respondent profile: 51% of respondents were below 25 years and 31% were aged 25–35 years; thus 82%

were below 35. Students formed 43% and salaried employees 34%. Investors with less than three years of experience represented 73% of the sample.

Factor	Agree + Strongly Agree	Main implication
Overconfidence	79%	May encourage excessive trading and overestimation of market prediction ability.
Loss aversion	67%	Loss avoidance is an important influence on investment decisions.
Herding	71%	Many investors follow popular market trends and collective actions.
Anchoring	72%	Observed prices/reference points influence investment evaluation.

Financial literacy and awareness: About 78% agreed or strongly agreed that financial literacy is important for controlling biases. Around 70% reported understanding risk diversification and 73% reported awareness of behavioural biases.

Technology: 68% agreed or strongly agreed that technology-based investment applications increase confidence. Groww was the most preferred platform (38%), followed by Zerodha (29%) and Angel One (22%). About 75% agreed or strongly agreed that digital platforms make trading more convenient.

Social media was the main digital source for investment research (41%).

Investor psychology: 67% agreed or strongly agreed that short-term market changes create emotional stress. Confidence and greed were the most frequently reported emotions, each around 30%, while fear accounted for 25%.

RELIABILITY TEST

Measure	Value
Cronbach's Alpha	0.708
Number of items	31
Interpretation	Acceptable internal consistency

CORRELATION ANALYSIS

Measure	Result
Posterior mean correlation	0.245
95% credible interval	0.128 to 0.358
Interpretation	Weak positive relationship

The result indicates that respondents with higher financial literacy tend to have somewhat better ability to manage behavioural biases, but the relationship is

weak. Financial literacy alone is therefore not sufficient to eliminate behavioural biases.

REGRESSION ANALYSIS

Statistic / Predictor	Result
R	0.226
R Square	0.051
Adjusted R Square	0.040
F-value	4.426
Model significance	p = 0.005
Emotional stability during market volatility	B = 0.147; p = 0.024 (Significant)
Digital sources influencing investment decisions	B = 0.096; p = 0.141 (Not significant)
Psychological factors over market fundamentals	B = 0.063; p = 0.268 (Not significant)

The overall regression model is statistically significant. Emotional stability during market volatility is the only individually significant predictor. Digital information sources and psychological factors were not individually significant. The R^2 of 0.051 indicates that the selected predictors explain a limited

proportion of variation, suggesting that other factors also influence behavioural biases.

ONE-WAY ANOVA

Variable	p-value	Result
Understanding of portfolio diversification	0.819	No significant age-group difference
Frequently used investment platform	0.379	No significant age-group difference
Behavioural biases despite financial knowledge	0.380	No significant age-group difference

The ANOVA results indicate that age does not significantly influence the selected investment-related perceptions and behaviours.

HYPOTHESIS TESTING – SUMMARY

Hypothesis	p-value	Decision
H01: Emotional stability significantly influences behavioural biases affecting investment decision-making.	0.024	Rejected – significant relationship
H02: Digital sources significantly influence behavioural biases affecting investment decision-making.	0.141	Accepted – no significant relationship
H03: Psychological factors significantly influence behavioural biases affecting investment decision-making.	0.268	Accepted – no significant relationship
Overall regression model	0.005	Statistically significant
Age-group differences in selected variables	> 0.05	No significant difference

OVERALL FINDINGS

Overconfidence, loss aversion, herding and anchoring are prevalent among surveyed retail investors.

Young and relatively less-experienced investors form the majority of the sample.

Financial literacy is positively associated with the ability to mitigate behavioural biases, but the relationship is weak.

Emotional stability during market volatility significantly influences behavioural bias-related investment decision-making.

Technology-based platforms improve convenience and confidence, but digital information sources alone do not significantly explain behavioural biases in the regression model.

Social media and peer influence are important practical sources of investment information and may contribute to herding and emotionally driven decisions.

Age does not significantly differentiate the selected investment perceptions and behaviours examined in the ANOVA.

CONCLUSION

The study concludes that retail investment decisions in Bengaluru are substantially influenced by behavioural and emotional factors even in a technology-enabled investment environment. Overconfidence, loss aversion, herding and anchoring are evident among respondents, while financial literacy provides some support for controlling these biases. However, financial knowledge alone is not sufficient to eliminate behavioural effects.

The regression results emphasise the importance of emotional stability during market volatility. Although digital investment platforms have increased accessibility and convenience, investor education should go beyond technical financial knowledge and include behavioural awareness, emotional discipline and practical risk-management skills.

IMPLICATIONS

- Financial literacy programmes should include behavioural-finance education on overconfidence, loss aversion, herding and anchoring.
- Fintech platforms can provide risk alerts, diversification reminders and educational content that discourage impulsive trading.
- Investment advisors should help investors identify emotional reactions during market volatility and develop disciplined investment plans.
- Regulators and financial institutions can promote investor-awareness programmes combining financial knowledge with behavioural awareness.

LIMITATIONS

- The study is limited to 251 retail investors in Bengaluru.
- Convenience sampling may introduce sampling bias.

- The study relies on self-reported questionnaire responses.
- The cross-sectional design does not capture changes in behaviour over time.
- Only selected behavioural, financial, psychological and technology-related variables were examined.

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HOW TO CITE: Abhishek T. S.*, Rinku Modoor S., Impact Of Behavioral Biases On Investment Decision-Making Among Retail Investors In Bengaluru, *Int. J. Sci. R. Tech.*, 2026, 3 (8), 490-495. <https://doi.org/10.5281/zenodo.21914925>