

Behavioural Biases and Investor Perception in Retail Equity Investment Decisions: A Study Among Individual Investors in Bengaluru

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Abstract – Classical finance theory assumes investors process information rationally and act to maximize expected utility, yet a substantial behavioral-finance literature shows that psychological biases systematically shape real investment decisions. This study examines the influence of common behavioral biases, namely overconfidence, herding, loss aversion and the disposition effect, on the investment decisions and self-reported satisfaction of individual retail investors in Bengaluru. A structured five-point Likert questionnaire covering demographic, investment-behavior and bias-related statements was administered to 150 individual equity and mutual-fund investors. A one-sample t-test confirms that the composite bias-influence score ($M = 3.71$, $SD = 0.34$) is significantly above the neutral midpoint ($t = 25.86$, $p < 0.001$), indicating that respondents recognize behavioral biases as a material influence on their own investment decisions. One-way ANOVA found a significant difference in bias-influence scores across income groups ($F = 3.128$, $p = 0.016$) but not across investing-experience bands ($F = 1.104$, $p = 0.351$). Pearson correlation found a significant positive relationship between self-reported overconfidence and trading frequency ($r = 0.34$, $p < 0.001$), and a significant negative relationship between risk tolerance and portfolio diversification ($r = -0.21$, $p = 0.010$), while a supplementary multiple regression of investment satisfaction on four bias dimensions was significant overall ($R^2 = 0.187$, $F(4,145) = 8.34$, $p < 0.001$), with loss aversion and herding emerging as the strongest individual predictors. No significant gender difference was found ($t = 1.12$, $p = 0.264$). The findings indicate that behavioral biases are a recognized and measurable influence on retail investment behavior in this sample, vary systematically with income, and are more closely tied to trading and diversification patterns than to demographic profile alone. The study recommends structured investor-education interventions targeted at high-income, high-turnover investor segments and closer integration of behavioral coaching into financial-advisory practice.

Keywords: Behavioral Finance, Investor Perception, Overconfidence, Herding, Loss Aversion, Disposition Effect, Retail Investors.

1. INTRODUCTION

Traditional investment theory rests on the assumption that investors are rational actors who process available information efficiently and construct portfolios that optimize the trade-off between risk and return. Since the late twentieth century, however, a growing body of behavioral-finance research has documented systematic, predictable deviations from this rational-agent model, deviations rooted not in a lack of

information but in the cognitive and emotional shortcuts investors use to simplify complex decisions under uncertainty. Biases such as overconfidence, herd behavior, loss aversion and the disposition effect, the tendency to sell winning investments too early and hold losing investments too long, have each been shown to shape trading frequency, portfolio composition and realized returns in ways that a purely rational model cannot explain.

India's retail investor base has expanded rapidly over the past decade, driven by rising financial-market participation, digital broking platforms and mutual-fund systematic investment plans, bringing a large and increasingly diverse population of individual investors into direct contact with equity markets, often with limited formal training in portfolio theory or risk management. This study examines how far behavioral biases are recognized by, and associated with, the investment decisions of individual retail investors in Bengaluru, and tests, using inferential statistics, whether the influence of these biases varies systematically with income, experience and demographic profile, and whether it is measurably associated with trading behavior, diversification and investment satisfaction.

A. Need for the Study

Regulators, mutual-fund distributors and investment advisers in India increasingly emphasize investor education, yet most awareness campaigns focus on product knowledge and disclosure rather than on the psychological biases that shape how that information is actually used. Understanding which biases retail investors themselves recognize, and how these are associated with observable behaviors such as trading frequency and diversification, is useful both to advisers designing behavioral-coaching interventions and to the wider literature on retail investment behavior in emerging markets.

B. Objectives of the Study

- To study the demographic and investment-profile characteristics of individual retail investors surveyed.
- To assess the extent to which investors perceive behavioral biases as influencing their own investment decisions.
- To examine the relationship between overconfidence and trading frequency, and between risk tolerance and portfolio diversification.
- To test whether bias-influence perception differs significantly across income groups, experience levels and gender.
- To evaluate the combined influence of behavioral bias dimensions on investors' self-reported investment satisfaction.
- To recommend measures for improving investor education and behavioral-advisory practice.

2. LITERATURE REVIEW

The behavioral-finance literature traces its conceptual foundation to prospect theory, which showed that individuals evaluate outcomes as gains or losses relative to a reference point and weight losses more heavily than equivalent gains, a pattern termed loss aversion [1]. Building on this foundation, subsequent work identified the disposition effect, investors' systematic tendency to realize gains too early and defer the realization of losses, using large discount-brokerage trading records [2]. Overconfidence has been shown to increase trading frequency while simultaneously lowering net returns, since excessive trading raises transaction costs without a corresponding improvement in stock-selection ability [3], and related work links overconfidence specifically to under-diversification and excessive concentration in familiar securities [4].

Herding behavior, the tendency of investors to mimic the observed trading decisions of others rather than act on independent analysis, has been documented in both developed and emerging equity markets, with several studies finding herding intensity to be more pronounced during periods of high market volatility [5], [6]. In the Indian context, studies of retail investor behavior report widespread awareness of mutual funds and systematic investment plans alongside continued reliance on informal advice and social information in decision-making [7], and regulatory investor-survey data point to persistent gaps in financial literacy even as market participation grows [8], [9]. Industry data on mutual-fund flows and systematic investment plan contributions provide further indirect evidence of behavioral patterns, including pro-cyclical flow behavior consistent with herding [10].

Research Gap

Existing literature robustly establishes the theoretical mechanisms of loss aversion, the disposition effect, overconfidence and herding, and confirms their presence in both developed and Indian equity markets using trading-record and survey-based evidence. However, comparatively few studies combine self-reported bias-recognition with objective behavioral indicators such as trading frequency and diversification within a single regional retail-investor sample, or test whether such associations differ systematically by income and experience. This study addresses that gap using primary survey data from 150 individual investors in Bengaluru.

3. RESEARCH METHODOLOGY

A. Research Design

The study adopts a descriptive and analytical research design based on a quantitative approach. It is descriptive in profiling the demographic and investment-behaviour characteristics of respondents, and analytical in applying inferential statistical tests, one-sample and independent-samples t-tests, one-way ANOVA, Pearson correlation and multiple linear regression, to the primary survey data in order to test the stated hypotheses.

B. Population and Sample

The population comprises individual retail investors in Bengaluru who actively invest in listed equity shares and/or

mutual funds. A sample of 150 investors was surveyed using non-probability convenience and snowball sampling, whereby a structured questionnaire administered as a Google Form was circulated among individual investors accessible to the researcher, spanning a range of income levels, investing-experience bands and investment-avenue preferences.

C. Instrument and Data Analysis

Primary data were collected using a two-part structured questionnaire: Section A captured demographic and investment-profile variables (age, gender, income, years of investing experience and preferred investment avenue), and Section B comprised statements measuring perceived overconfidence, herding, loss aversion, disposition effect and overall investment satisfaction, each rated on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), alongside two behaviorally revealing items on trading frequency and portfolio diversification. All 150 responses were complete, with no missing values. Data were analyzed using Python's pandas, NumPy and SciPy libraries, computing frequency and percentage distributions, descriptive statistics, Pearson correlation, multiple linear regression, and formal hypothesis tests at $\alpha = 0.05$.

D. Hypotheses

- H1: The mean composite bias-influence score does not significantly differ from the neutral midpoint (3.0).
- H2: There is no significant difference in mean bias-influence scores across income groups.
- H3: There is no significant difference in mean bias-influence scores across investing-experience bands.
- H4: There is no significant correlation between perceived overconfidence and trading frequency.
- H5: There is no significant correlation between risk tolerance and portfolio diversification.
- H6: There is no significant difference in mean bias-influence scores between male and female respondents.

E. Limitations

The 150-respondent sample was drawn through non-probability convenience and snowball sampling confined to Bengaluru, limiting generalizability to the wider Indian retail-investor population; the cross-sectional design captures perception and self-reported behavior at a single point in time; and trading frequency and diversification were measured through self-report rather than verified brokerage records, which may be subject to recall or social-desirability bias.

4. RESULTS AND DISCUSSION

A. Respondent Profile

The 150-respondent sample skews toward younger, salaried investors with moderate investing experience, and mutual funds and direct equity are the two most preferred investment avenues (Table 1).

Table 1. Respondent Profile (N = 150)

Category	Dominant Group	Share
Age	26–35 years	41.3%
Gender	Male	58.7%

Annual Income	₹5–10 lakh	33.3%
Investing Experience	1–5 years	44.0%
Preferred Avenue	Mutual Funds / SIP	38.7%

Source: Primary data compiled by the researcher (n = 150).

B. Perception of Behavioural Bias Influence

Table 2 summarises the key bias-perception indicators from the survey. All measured bias dimensions recorded means above the scale midpoint, with loss aversion and herding rated as the most strongly recognised influences, while overconfidence, though still above midpoint, was rated comparatively lower.

Table 2. Key Primary-Data Bias-Perception Indicators (N = 150)

Indicator	Value
Composite bias-influence score (of 5)	3.71
Highest-rated dimension — Loss Aversion	3.94
Lowest-rated dimension — Overconfidence	3.42
Report trading "often" or "very often" based on tips/trends	41.3%
Report portfolio concentrated in 1–3 securities/funds	29.3%
Investment satisfaction mean (of 5)	3.58

Source: Computed by the researcher from primary survey data (n = 150).

C. Hypothesis Testing Results

The six hypotheses specified in Section 3 were tested at $\alpha = 0.05$ using one-sample and independent-samples t-tests, one-way ANOVA, and Pearson correlation (Table 3).

Table 3. Summary of Hypothesis Testing Results

Hypothesis	Statistic	p	Result
H1: Score vs. Midpoint	t = 25.860	<0.001	Rejected
H2: Score × Income	F = 3.128	0.016	Rejected
H3: Score × Experience	F = 1.104	0.351	Not rejected
H4: Overconfidence × Trading	r = 0.340	<0.001	Rejected
H5: Risk Tolerance × Diversification	r = -0.210	0.010	Rejected
H6: Score × Gender	t = 1.120	0.264	Not rejected

The composite bias-influence score is statistically significantly above the neutral midpoint (H1 rejected), confirming that respondents, on average, recognise behavioural biases as materially shaping their own investment decisions. Bias-

influence perception differs significantly by income group (H2 rejected), with higher-income respondents reporting higher scores, but not by investing-experience band (H3 not rejected), suggesting years of exposure to markets alone does not reduce self-recognised bias. Overconfidence is significantly positively correlated with trading frequency (H4 rejected), consistent with the established finding that confidence in one's own judgement drives more frequent trading, and risk tolerance is significantly negatively correlated with portfolio diversification (H5 rejected), indicating that more risk-tolerant respondents in this sample hold more concentrated, less diversified portfolios. A supplementary multiple regression of investment satisfaction on the four bias dimensions was significant overall ($R^2 = 0.187$, $F(4,145) = 8.34$, $p < 0.001$), with loss aversion ($\beta = -0.29$, $p = 0.001$) and herding ($\beta = -0.21$, $p = 0.009$) emerging as significant negative predictors of satisfaction, while overconfidence and disposition effect were not individually significant. The gender difference (H6) was not significant.

D. Discussion

- Respondents clearly recognise behavioural biases, particularly loss aversion and herding, as influencing their own investment decisions, with the composite score significantly above the neutral midpoint.
- Bias-influence perception is not uniform across the sample: it rises significantly with income, suggesting higher-income investors either take more active, opinion-driven positions or are more self-aware of the biases shaping them.
- The significant overconfidence–trading-frequency and risk-tolerance–diversification correlations show that self-recognised biases are not merely stated beliefs but are measurably associated with observable investment behaviour.
- Loss aversion and herding are the strongest negative predictors of investment satisfaction, indicating these two biases in particular may be the most productive targets for behavioural-coaching interventions.

E. Implications

Academic: The study extends the behavioural-finance literature by linking self-reported bias recognition to observable behavioural indicators, trading frequency and diversification, within a single Indian retail-investor sample, and by testing income and experience as moderating variables.

Managerial: For financial advisers and wealth-management practitioners, the findings suggest that behavioural coaching addressing loss aversion and herding specifically, rather than generic risk-profiling alone, may do more to improve client satisfaction and portfolio outcomes.

Policy: For regulators and industry bodies designing investor-education programmes, the significant income-linked difference in bias-influence perception suggests that targeted, segment-specific behavioural-education content may be more effective than uniform, one-size-fits-all awareness campaigns.

5. CONCLUSION AND RECOMMENDATIONS

This study examined the influence of behavioural biases on the investment decisions of 150 individual retail investors in Bengaluru. Respondents clearly and significantly recognise behavioural biases, particularly loss aversion and herding, as

shaping their own investment decisions, and this recognition is measurably associated with real behavioural indicators such as trading frequency and portfolio diversification rather than being confined to stated belief. Bias-influence perception varies significantly with income but not with years of investing experience, and loss aversion and herding emerge as the two dimensions most strongly and negatively associated with investment satisfaction.

Based on these findings, the study recommends: (a) incorporating structured behavioural-coaching modules, focused specifically on loss aversion and herding, into financial-advisory and investor-education programmes; (b) designing income-segment-specific investor-education content rather than uniform campaigns; (c) encouraging systematic, rules-based investment approaches such as systematic investment plans to counter overconfidence-driven excessive trading; (d) promoting diversification-focused advisory tools for risk-tolerant investors identified as holding concentrated portfolios; and (e) extending this study with verified brokerage-level trading data to validate the self-reported behavioural indicators used here. Longitudinal tracking of the same investors across market cycles is suggested as a direction for further study.

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