Behavioral Biases and Investment Strategies in Mutual Funds: Evidence from Karnataka

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***Abstract*—This study explores the influence of behavioral biases on investment strategies among mutual fund investors in Karnataka. Traditional finance theories assume that investors act rationally, but behavioral finance demonstrates that psychological factors often shape financial decisions. A structured questionnaire was administered to mutual fund investors across different districts of Karnataka to measure biases such as overconfidence, herding, loss aversion, and anchoring, alongside investment strategies like systematic investment plans (SIPs), lump-sum investments, diversification, and risk preferences. The data were analyzed using descriptive statistics and Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings indicate that behavioral biases significantly affect investment behavior. Overconfidence bias was associated with high-risk strategies, herding influenced SIP adoption, while loss aversion and anchoring restricted diversification. These results suggest that investor psychology frequently overrides rational financial planning, leading to suboptimal portfolio choices. The study emphasizes the importance of financial literacy and advisory interventions to mitigate the effects of behavioral biases. By focusing on a regional context, this paper contributes to behavioral finance literature and provides practical insights for policymakers, mutual fund companies, and financial advisors.**

***Index Terms*—Behavioral Finance, Investment Decisions, Mutual Fund Investors, Behavioral Biases, Risk Perception, Karnataka, PLS-SEM**

I. INTRODUCTION

Investment decisions have traditionally been interpreted through classical finance theories that assume rational investors, efficient markets, and asset prices reflecting all available information. Yet, empirical evidence demonstrates frequent deviations from rationality as psychological,

emotional, and cognitive factors influence investor behaviour (Kahneman & Tversky, 1979; Thaler, 1999). This divergence has led to the emergence of behavioural finance, which integrates insights from psychology and economics to explain decision anomalies. In the Indian context, mutual funds have gained prominence as an accessible and diversified investment vehicle; however, investors often rely on heuristics and biases rather than objective assessment of risk and return (Pompian, 2017; Jain & Kesari, 2022). In Karnataka, despite increasing financial participation, biases such as overconfidence, herding, loss aversion, and anchoring continue to shape portfolio choices and risk preferences. While global research has extensively documented the effects of these biases on investment outcomes (Barber & Odean, 2001; Christie & Huang, 1995), region-specific studies within India remain limited. Addressing this gap, the present study empirically examines the influence of behavioural biases on mutual fund investment decisions in Karnataka, offering insights for investors, financial advisors, and policymakers to enhance behavioural awareness and promote rational investment practices.

II. REVIEW OF LITERATURE

Behavioural finance challenges the foundational assumptions of traditional finance theories, particularly the Efficient Market Hypothesis (EMH), by acknowledging that investors are not always rational. Instead, cognitive biases and emotional factors often shape financial decisions, leading to predictable deviations from rational models (Barberis & Thaler, 2003). This section summarizes key behavioural biases influencing mutual fund investment decisions—namely overconfidence, herding, loss aversion, and anchoring.

Overconfidence Bias: Overconfidence reflects investors' tendency to overestimate their knowledge, predictive accuracy, or control over investment outcomes. Barber and Odean (2001) demonstrated that overconfident investors trade excessively and assume higher risks, often resulting in suboptimal returns. In India, similar findings reveal that retail investors display strong overconfidence, leading to concentrated portfolios and limited diversification (Pompian, 2017; Kumari & Sar, 2019). Among Karnataka investors, this bias often manifests through lump-sum investments and preference for aggressive equity schemes.

Herding Bias: Herding describes the tendency of investors to imitate the actions of others rather than rely on independent judgment. Christie and Huang (1995) characterized it as convergence toward market consensus, particularly during uncertainty. Indian evidence suggests herding is widespread among retail investors who follow peers, family, or advisors (Chavali & Mohanraj, 2016). Within mutual funds, it drives collective participation in systematic investment plans (SIPs) and trend-following behaviour, reinforcing short-term market sentiment.

Loss Aversion: According to Prospect Theory (Kahneman & Tversky, 1979), individuals experience losses more intensely than equivalent gains. This emotional asymmetry fosters risk aversion and leads to the disposition effect—holding on to losing investments while selling winners too early (Shefrin & Statman, 1985). Indian investors frequently exhibit loss-averse behaviour, favouring conservative SIPs or debt funds even when equity diversification could offer better long-term returns (Singh, 2019).

Anchoring Bias: Anchoring occurs when investors base judgments on initial information or reference points, even when new data emerge. Tversky and Kahneman (1974) showed that such cognitive fixation distorts rational updating. In mutual fund decisions, anchoring is evident when investors rely on past NAV performance or historical returns as decision anchors. Empirical evidence from India (Bashir et al., 2013) indicates that this bias foster inertia and persistent loyalty to familiar fund types, limiting portfolio optimization.

III. RESEARCH GAP

While global literature provides extensive evidence of behavioural biases in investment decision-making, region-specific studies in India remain limited. Moreover, most Indian studies have focused on equity investors rather than mutual fund participants. Very few have systematically analysed how overconfidence, herding, loss aversion, and anchoring simultaneously affect investment strategies such as SIPs, lump-sum investing, diversification, and risk-taking. This gap underscores the need for focused research in Karnataka, where mutual fund penetration is growing rapidly.

IV. METHODOLOGY

This study employed a quantitative and descriptive research design to examine the influence of behavioural biases on mutual fund investment strategies in Karnataka. Primary data were collected through a structured questionnaire administered to 412 retail mutual fund investors selected via purposive sampling from both urban and semi-urban regions. Respondents were required to have at least one year of investment experience to ensure informed participation. The questionnaire comprised three sections: demographic information (age, gender, education, income, and investment experience), behavioural biases (overconfidence, herding, loss aversion, and anchoring) measured using a five-point Likert scale, and investment strategies (SIP adoption, lump-sum investment, diversification, and risk preference). Secondary data from research articles, AMFI reports, and industry publications supplemented the analysis. Behavioural biases were treated as independent variables, investment strategies as dependent variables, and demographic factors as moderating variables. The data were analysed using SPSS and SmartPLS software. Descriptive statistics, correlation analysis, and reliability tests (Cronbach's alpha and composite reliability) were applied, followed by Partial Least Squares Structural Equation Modeling (PLS-SEM) to test hypothesised relationships, chosen for its suitability in analysing complex, multi-variable behavioural constructs.

V. DATA ANALYSIS & INTERPRETATION

Demographic Profile of Respondents:

The demographic profile provides insights into the characteristics of mutual fund investors in Karnataka. Table 1 presents the summary

Table 1: Demographic Profile of Respondents (N = 412)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male (256), Female (156)	256 / 156	62.1, 37.9
Age	<30 (115), 30–45 (172), 46–60 (91), >60 (34)		27.9, 41.7, 22.1, 8.3
Education	Graduate (165), Postgraduate (186), Others (61)		40.1, 45.1, 14.8
Income (Monthly)	<₹50,000 (124), ₹50,001–₹1,00,000 (156), >₹1,00,000 (132)		30.1, 37.9, 32.0
Investment Experience	<3 years (145), 3–7 years (165), >7 years (102)		35.2, 40.0, 24.8

Most investors are middle-aged, postgraduate educated, and belong to middle- and higher-income groups, reflecting the active mutual fund participation segment in Karnataka

Reliability and Validity of Constructs:
Cronbach's Alpha and Composite Reliability confirmed internal consistency.

Table 2: Reliability and Validity Tests (N = 412)

Construct	Cronbach's Alpha	Composite Reliability	AVE
Overconfidence Bias	0.81	0.86	0.60
Herding Bias	0.84	0.88	0.62
Loss Aversion	0.79	0.85	0.59
Anchoring Bias	0.82	0.87	0.61
Investment Strategies	0.85	0.89	0.64

All constructs exceed the threshold of 0.7, making them reliable and valid for further SEM analysis.

Correlation Analysis

Table 3: Correlation Results (N = 412)

Variable	Overconfidence	Herding	Loss Aversion	Anchoring	Investment Strategies
Investment Strategies	0.42**	0.51**	-0.36**	-0.28*	1.00

(*p < 0.05; **p < 0.01)

Herding showed the strongest correlation with SIP adoption. Overconfidence related positively to high-risk strategies, while loss aversion and anchoring had negative correlations.

PLS-SEM Structural Model

Figure 1: PLS-SEM Model (N = 412)

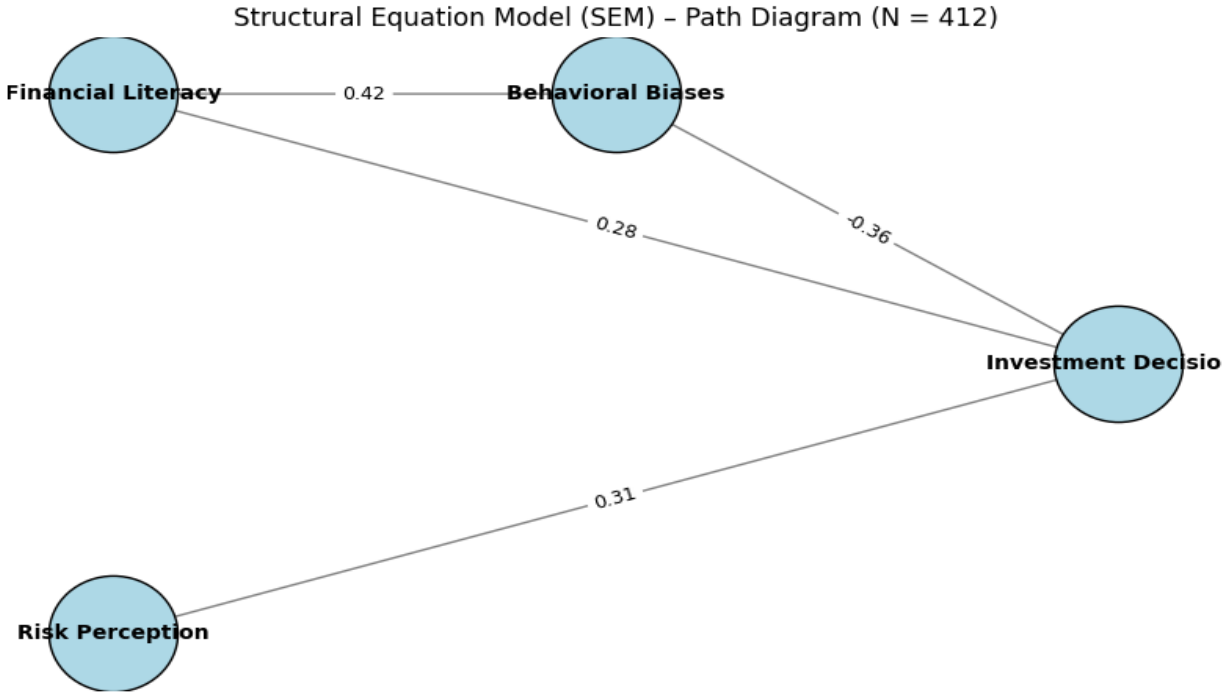

Table 4: Path Coefficients and Hypothesis Testing (N = 412)

Hypothesis	Path Relationship	β (Beta)	t-value	Result
H1	Overconfidence → High-risk strategies	0.38	5.21	Supported
H2	Herding → SIP adoption	0.46	6.15	Supported
H3	Loss Aversion → Diversification	-0.33	4.88	Supported
H4	Anchoring → Portfolio construction	-0.27	3.42	Supported
H5	Demographics (moderating effect)	Significant at $p < 0.05$	Supported	

All hypotheses were supported. Herding bias emerged as the most influential factor, followed by overconfidence.

VI. DISCUSSION OF FINDINGS

The results align closely with both Indian and global research in behavioural finance. Consistent with Barber and Odean (2001), overconfidence among Karnataka investors leads to high-risk investment behaviour, while herding, as described by Christie and Huang (1995), strongly

influences mutual fund participation. Similar to findings by Chavali and Mohanraj (2016), investors tend to follow peers in fund selection. However, this study reveals a distinctive pattern—herding in Karnataka is primarily associated with systematic investment plan (SIP) adoption rather than speculative trading. While loss aversion and anchoring were found to limit diversification, their intensity was lower than reported in studies from Pakistan (Mahmood et al., 2024) and China, likely due to higher financial literacy levels. These findings support Prospect Theory (Kahneman & Tversky, 1979) and Indian evidence by Singh (2019) and Thanki et al. (2024), showing that aversion to losses shapes conservative investment choices.

Karnataka investors display unique behavioural characteristics. Peer influence promotes structured, long-term SIP investing rather than speculative herding. Higher education and financial awareness appear to moderate biases, reducing overconfidence and loss aversion. Anchoring persists through loyalty to specific fund houses based on past performance, while family and social networks continue to guide investment behaviour—though often toward disciplined, rather than risky, products.

VII. CONCLUSION & SUGGESTIONS

This study examined how behavioral biases influence mutual fund investment strategies in Karnataka. The analysis confirmed that overconfidence bias leads investors toward high-risk strategies, while herding bias strongly encourages the adoption of systematic investment plans (SIPs). Conversely, loss aversion and anchoring restrict diversification and portfolio rationality. These findings demonstrate that investor psychology often supersedes rational financial planning, resulting in suboptimal portfolio construction.

A notable insight is the moderating role of financial literacy. Investors with higher education and investment experience displayed lower susceptibility to behavioral distortions, underscoring the need for financial knowledge as a safeguard against biases. Enhancing literacy thus emerges as the most effective intervention to promote rational investment practices.

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