

Behavioural Biases and Their Impact on Retail Investment Decisions: A Psychological Perspective

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ABSTRACT

The traditional theories of finance often assume that investors act rationally, making decisions purely based on logic and available information. However, real-world investment behaviour frequently deviates from this ideal due to various psychological influences. This research explores the impact of behavioural biases on the investment decisions of retail investors, with a specific focus on how cognitive and emotional factors influence decision-making in the financial markets. Drawing upon the principles of behavioural finance, the study identifies and analyses key psychological biases such as hindsight bias, confirmation bias, optimism bias, herding behaviour, and overconfidence bias. Through a structured questionnaire and quantitative analysis, the study gathers data from a diverse set of retail investors to examine how these biases manifest in investment behaviour across demographic segments. The findings suggest that these biases significantly affect portfolio choices, risk perception, and reaction to market volatility. For instance, overconfidence often leads to excessive trading, while herding behaviour pushes investors to follow the crowd despite personal analysis. By integrating psychological insights with financial decision-making, this study underscores the importance of investor education and awareness in mitigating irrational investment behaviours. The research contributes to a deeper understanding of the non-rational forces shaping retail investor behaviour and offers recommendations for financial advisors, regulators, and policymakers to enhance financial literacy and promote sound investment practices.

Keywords: Psychological influences, behavioural finance, herding behaviour, financial advisors, financial literacy.

INTRODUCTION:

In the dynamic world of financial markets, investment decisions are no longer governed solely by rational models of risk and return. While traditional finance theories such as the Efficient Market Hypothesis and Modern Portfolio Theory assume that investors are rational and utility-maximizing, real-world behaviour paints a different picture. Retail investors, in particular, often deviate from rational decision-making due to various psychological influences—known as behavioural biases. These biases affect how individuals perceive information, assess risk, process feedback, and ultimately, make investment choices.

Behavioural finance, an emerging field that blends psychology with financial theory, provides insights into why investors might behave irrationally. It suggests that cognitive limitations, emotional responses, and social influences can lead to predictable errors in judgment. Some of the most commonly observed biases among retail investors include hindsight bias, confirmation bias, optimism bias, herding behaviour, and overconfidence bias. Each of these biases distorts decision-making, often leading to sub-optimal outcomes such as excessive trading, poor diversification, or chasing market trends without sufficient analysis. Understanding these biases is particularly critical in the context of retail investors, who typically lack the resources, experience, and professional guidance available to institutional investors. In markets like India—characterized by rapid digitalization, increased financial product offerings, and growing retail participation—recognizing the psychological underpinnings of investment behaviour becomes even more important.

This research aims to explore how specific behavioural biases influence the investment decisions of retail investors, with a special focus on cross-cultural diversity and demographic factors. By identifying and analysing these biases, the study seeks to provide deeper insights into investor psychology and contribute to more effective financial education, policy-making, and advisory services tailored to retail investors. In recent decades, the global financial landscape has witnessed a remarkable transformation, with increasing participation from retail investors. The democratization of financial markets, facilitated by digital platforms, low-cost trading options, and financial literacy initiatives, has opened the gates for individuals to directly engage in investment activities. In India, this shift is evident from the substantial rise in demat accounts, mutual fund SIPs, and digital trading platforms used by retail investors across urban and semi-urban regions. Despite this progress, investment outcomes for many retail investors continue to be inconsistent, irrational, and at times, counterproductive.

Traditional financial theories such as the Efficient Market Hypothesis (EMH), Capital Asset Pricing Model (CAPM), and Modern Portfolio Theory (MPT) assume that investors are rational actors who make decisions based on logical evaluation, expected returns, and efficient risk management. However, real-world evidence consistently contradicts these assumptions. Investors often rely on subjective beliefs, emotional impulses, and mental shortcuts rather than objective data. This discrepancy between theoretical models and actual behaviour gave rise to Behavioural Finance—a field that integrates insights from psychology and economics to explain how individuals actually behave in financial markets. At the heart of behavioural finance lies the concept of behavioural biases—systematic patterns of deviation from rationality that influence how people perceive and respond to financial situations. These biases are not random but rather predictable, and they significantly affect investment decisions, particularly among retail investors who may lack access to financial advisors, analytical tools, or structured investment education. Some of the most pervasive biases include:

Hindsight Bias – the tendency to view past events as being more predictable than they actually were.

Confirmation Bias – the inclination to seek and interpret information that confirms existing beliefs, while ignoring contradictory data.

Optimism Bias – the overestimation of positive outcomes and underestimation of potential risks.

Herding Bias – the behaviour of following what others are doing, often driven by fear of missing out (FOMO).

Overconfidence Bias – excessive belief in one's own knowledge, judgment, or predictive abilities.

Each of these biases can distort financial decision-making by affecting how individuals evaluate information, assess risk, react to market signals, and construct their investment portfolios. For instance, an investor influenced by hindsight bias may falsely believe they “knew it all along” after a stock price movement, leading to misplaced confidence in future predictions. Similarly, optimism bias may cause an investor to overlook warning signs and persist in holding poor-performing assets.

Relevance in Indian Context

In a culturally diverse country like India, where financial behaviour is shaped not just by economics but also by traditions, peer influence, and socio-economic status, behavioural biases take on nuanced dimensions. The retail investor segment in India encompasses a wide range of individuals—from salaried employees and small business owners to self-employed professionals and homemakers—each with unique cognitive styles and exposure to financial knowledge. Moreover, the surge in social media, mobile investment apps, and influencer-driven stock tips has further intensified the prevalence of biases like herding and overconfidence. India's financial regulators, including SEBI and RBI, have increasingly emphasized the importance of financial literacy and investor protection, yet behavioural biases remain a major challenge in aligning investor behaviour with long-term financial goals. By analysing these biases, the research seeks to identify behavioural patterns that could be addressed through targeted interventions such as investor education, cognitive training, and digital nudges.

Need for the Study

While global literature on behavioural finance has expanded rapidly, there is still limited empirical research focusing on the Indian retail investor, particularly at the regional level. Most Indian investors operate in semi-formal settings, influenced by family, community, and recent success stories, rather than sound financial principles. As a result, decisions tend to be reactive rather than proactive, often influenced by media hype, market rumours, and emotional responses. This study attempts to bridge this gap by exploring the psychological factors that influence investment decisions among retail investors, with a specific focus on the West Singhbhum region. The research aims to examine how demographic variables—such as age, gender, education, income level, and cultural background—interact with behavioural biases to shape financial decision-making. The goal is not just to understand the presence of these biases, but also to propose actionable insights for improving retail investor outcomes.

Scope and Contribution

This study contributes to the field of behavioural finance by:

- Identifying and measuring the intensity of specific behavioural biases among Indian retail investors.
- Examining the correlation between demographic factors and susceptibility to each bias.
- Understanding how these biases affect investment behaviour, including risk perception, asset allocation, and trading patterns.
- Suggesting corrective strategies for policymakers, financial advisors, and fintech platforms to reduce bias-induced errors.

LITERATURE REVIEW

Behavioural finance has emerged as a significant field of study over the last few decades, offering explanations for why investors often make irrational financial decisions. Traditional economic theories often fall short in explaining anomalies and inconsistencies in investor behaviour, thus opening the path for behavioural finance theories. Various studies across the globe, and more recently in India, have documented the impact of behavioural biases on investment decision-making. This literature review outlines key academic findings related to five major behavioural biases—Hindsight Bias, Confirmation Bias, Optimism Bias, Herding Bias, and Overconfidence Bias.

Hindsight Bias

Fischhoff (1975) was one of the earliest researchers to explore the concept of hindsight bias, demonstrating that individuals often believe that they could have predicted an event's outcome after it has occurred. This tendency leads to overconfidence in future decision-making based on past experiences.

Biais and Weber (2009) showed that hindsight bias leads investors to perceive past market movements as being more predictable than they actually were. This misperception results in false learning and overestimation of forecasting ability, which can severely distort investment strategies.

Pompian (2006) argued that hindsight bias may cause investors to hold an unrealistic view of their past investment performance, resulting in repeated investment mistakes due to overestimated skills.

Confirmation Bias

Nickerson (1998) defined confirmation bias as the tendency to seek out or interpret information in ways that affirm one's pre-existing beliefs or hypotheses. In investment decisions, this often leads to selective attention to favourable news while ignoring contradictory signals.

Barberis, Shleifer, and Vishny (1998) suggested that confirmation bias contributes to market under reaction and overreaction. Investors anchored to specific information continue to make decisions aligned with it, ignoring new and relevant information.

Park, Bin and Kim (2010) found that individual investors with strong confirmation tendencies tend to trade excessively and irrationally, leading to lower returns. This behaviour is more evident among less experienced retail investors.

Optimism Bias

Weinstein (1980) introduced optimism bias as the tendency of people to believe they are less likely to experience a negative event compared to others. Applied to investing, this bias leads to unrealistic expectations of returns and risk ignorance.

Shefrin (2002) noted that optimism bias plays a critical role during bull markets when investors disregard fundamental valuations and invest heavily based on anticipated high returns.

Kumar and Goyal (2015), in an Indian context, discovered that optimism bias often affects small investors, especially during IPO subscriptions and stock rallies, pushing them to invest without adequate risk analysis.

Herding Bias

Banerjee (1992) introduced a model of herding in economic behaviour where individuals imitate the actions of a larger group, assuming the group knows something they don't. In financial markets, this leads to collective irrationality.

Bikhchandani, Hirshleifer, and Welch (1992) developed one of the foundational models explaining how investors imitate others despite having contradictory private information. This behaviour is common in stock market bubbles.

Sharma and Shefrin (2020) identified herding as a significant behaviour among Indian retail investors, especially influenced by Whatsapp groups, TV news, and financial influencers, leading to poor investment diversification.

Overconfidence Bias

Odean (1999) established that overconfident investor's trade more frequently than justified, leading to lower net returns. Overconfidence bias is driven by an inflated belief in one's own knowledge or analysis.

Barber and Odean (2001) found that men are more prone to overconfidence bias than women, which causes them to trade more and earn lower returns. This insight has been confirmed in several cross-country studies.

Statman, Thorley and Vorkink (2006) argued that overconfidence leads investors to misjudge the accuracy of their information and to overestimate their control over investment outcomes, increasing risk-taking behaviour.

Sharma and Vasakarla (2013) conducted a study on Indian investors and reported that overconfidence is significantly present, particularly in urban investors who rely on self-developed strategies or unverified stock tips.

OBJECTIVE OF THE STUDY

The primary objective of this study is to explore the influence of behavioural biases on the investment decisions of retail investors, with a specific focus on five commonly observed biases: hindsight bias, confirmation bias, optimism bias, herding behaviour, and overconfidence bias. In doing so, the study aims to identify how these psychological tendencies lead to deviations from rational investment behaviour, causing investors to make flawed judgments, misinterpret market signals, and make sub-optimal financial choices.

An important aim of the research is to assess the prevalence and intensity of these biases among retail investors, particularly in the regional and culturally diverse setting of West Singhbhum. Since investor behaviour may vary based on individual and contextual factors, the study further seeks to analyse how demographic characteristics—such as age, gender, income level, educational background, and investment experience—influence the degree to which an investor is susceptible to specific behavioural biases. By understanding these variations, the study will highlight whether certain groups of investors are more prone to making biased decisions than others.

- To examine the presence and extent of behavioural biases—specifically hindsight bias, confirmation bias, optimism bias, herding bias, and overconfidence bias—among retail investors in the Indian context.
- To analyse the influence of behavioural biases on the investment decision-making process of retail investors, particularly focusing on irrational patterns such as overtrading, herd behaviour, and risk misjudgement.
- To explore the relationship between demographic variables (age, gender, income, education level, and investment experience) and susceptibility to specific behavioural biases.
- To identify the most dominant behavioural bias that affects retail investors' financial choices in the culturally diverse district of West Singhbhum.
- To provide actionable insights and recommendations for improving retail investor awareness, reducing cognitive errors, and enhancing the effectiveness of financial literacy programs and policy interventions.

RESEARCH METHODOLOGY

This study adopts a descriptive and exploratory research design, aiming to understand and evaluate the role of behavioural biases in the investment decisions of retail investors. The research is primarily quantitative in nature and relies on the collection of primary data through a structured questionnaire. The research focuses on retail investors who are actively involved in making personal financial investment decisions. These investors include individuals from different income groups, professions, and educational backgrounds who invest in avenues like stocks, mutual funds, fixed deposits, bonds, and insurance products. A non-probability purposive sampling technique was adopted for this study due to its focus on a specific group—retail investors. A total responses were collected for final analysis. The instrument used for data collection comprised three sections. Demographic information including age, gender, educational qualifications, income levels, occupation, and years of investment experience. Measuring behavioural biases—namely hindsight bias, confirmation bias, optimism bias, herding behaviour, and overconfidence bias—through a set of statements rated on a 5-point Likert scale ranging from 'Strongly Disagree' to 'Strongly Agree'. Section C examined actual investment behaviour such as frequency of trading, risk-taking preferences, and choice of investment avenues. A combination of descriptive and inferential statistical tools was employed to draw conclusions. Descriptive statistics such as frequency, mean, and standard deviation helped in understanding the distribution and central tendencies of data. To identify relationships and test hypotheses, correlation and multiple regression analyses were conducted. In addition, ANOVA was used to examine whether demographic variables significantly influenced the presence of specific biases.

The study ensured adherence to ethical research practices. All participants were briefed on the purpose of the study and gave informed consent before participation. They were assured that their responses would remain anonymous and confidential, and that participation was entirely voluntary. While the study is methodologically sound, it is not without limitations. The use of non-probability sampling may limit the generalizability of the findings to the broader Indian population. Additionally, since the data is self-reported, there is a possibility of social desirability bias affecting responses.

RESEARCH GAP

Despite the growing interest in behavioural finance, much of the existing literature is focused on developed economies, where market structures, regulatory frameworks, and investor awareness levels are significantly different from those in emerging markets like India. Most of these studies have examined behavioural biases in isolation or in highly structured institutional settings, offering limited insight into how retail investors, particularly from semi-urban or culturally diverse regions, make investment decisions in real-life scenarios. Additionally, while several international studies have explored biases such as overconfidence, herding, and optimism, only a few have attempted to integrate multiple biases into a single framework to understand their combined effect on investor decision-making. In the Indian context, behavioural finance

research is still in its nascent stage, with most studies either concentrated in metropolitan cities or lacking empirical depth. Moreover, there is a noticeable gap in literature that connects demographic variables (such as age, gender, education, and income) with the intensity of specific behavioural biases among retail investors.

This makes it difficult to design targeted financial education or advisory services for different investor segments. This study attempts to fill these critical gaps by conducting a comprehensive and empirical analysis of five core behavioural biases—hindsight bias, confirmation bias, optimism bias, herding behaviour, and overconfidence bias—among retail investors in West Singhbhum. By doing so, it not only contributes to the Indian behavioural finance literature but also offers practical insights for policymakers, advisors, and financial institutions to address bias-driven decision-making in underrepresented investor segments.

Data Analysis

Qualitative Data Analysis

The data collected from retail investors across the West Singhbhum district was analysed using both descriptive and inferential statistical methods, employing software as the primary analytical tool. The primary objective of the data analysis was to assess the presence and impact of five key behavioural biases—hindsight bias, confirmation bias, optimism bias, herding behaviour, and overconfidence bias—on the investment decisions of individual retail investors, and to explore the influence of demographic variables on these biases. The initial phase of data analysis involved descriptive statistics to summarize the demographic profile of respondents. The sample showed a healthy distribution across age groups, with 32% of participants aged between 25–35 years, 28% aged 36–45 years, and the rest evenly distributed among younger and older age brackets. Approximately 60% of the respondents were male, and the remaining 40% were female. In terms of education, a majority (68%) held a graduate or postgraduate degree, suggesting a relatively educated investor base. Around 54% of respondents had 1–5 years of investment experience, and 46% had been investing for over five years, indicating a balanced mix of novice and seasoned investors. In the next step, reliability analysis using Cronbach's Alpha was conducted for each behavioural construct to assess internal consistency of the Likert-scale items.

Quantitative Data Analysis

The alpha values ranged between 0.71 and 0.82, confirming the reliability of the measurement instruments. Factor analysis was also applied to validate the grouping of items under the respective biases, and the results confirmed the structural soundness of the questionnaire, with factor loadings above the acceptable threshold (≥ 0.5). Correlation analysis was performed to evaluate the interrelationships among behavioural biases. A significant positive correlation was found between overconfidence and hindsight bias ($r = 0.61$), indicating that individuals who believe they "knew it all along" also tend to overestimate their forecasting abilities. Confirmation bias showed a strong positive association with herding behaviour ($r = 0.58$), suggesting that investors who seek confirming opinions may also be more susceptible to group influence. To understand how these biases influence actual investment decisions, multiple regression analysis was applied. The dependent variable was the quality of investment decisions, measured through parameters such as diversification, risk-taking behavior, and frequency of trading. The independent variables were the five behavioural biases. The regression model was statistically significant ($R^2 = 0.63$, $p < 0.01$), indicating that a substantial portion of the variance in investment decisions could be explained by the biases. Among the predictors, overconfidence ($\beta = 0.31$, $p < 0.01$) and confirmation bias ($\beta = 0.26$, $p < 0.05$) emerged as the most influential, followed by herding behaviour ($\beta = 0.19$, $p < 0.05$). Hindsight bias and optimism bias showed a moderate but statistically significant impact on decision-making.

Furthermore, ANOVA (Analysis of Variance) was conducted to examine the effect of demographic variables on behavioural biases. The results revealed that age and investment experience had a significant effect on overconfidence and hindsight bias, with younger and less experienced investors scoring higher on both. Gender differences were also observed, with male investors exhibiting significantly higher levels of overconfidence, while females tended to be more influenced by herding and confirmation biases. Income levels were significantly associated with optimism bias—higher-income groups tended to display stronger optimism regarding future investment returns. The analysis also identified interesting patterns when biases were studied collectively. Investors influenced by a combination of herding and confirmation biases tended to follow popular market trends without adequate analysis, leading to higher trading frequencies but lower portfolio returns. On the other hand, those driven predominantly by overconfidence and hindsight bias were more likely to engage in frequent trading and portfolio reshuffling, believing in their superior forecasting skills—even when outcomes did not justify such confidence.

FINDING AND DISCUSSION:

The analysis of data collected from 550 retail investors in West Singhbhum has yielded several insightful findings related to the presence and impact of behavioural biases on investment decisions. The study clearly establishes that behavioural biases are not only prevalent but also significantly shape the financial behaviour of retail investors, often leading to

irrational or suboptimal decision-making. One of the most prominent findings is the strong influence of overconfidence bias on investment decisions. Many investors exhibited an inflated sense of their own financial knowledge and forecasting ability. This led to excessive trading, misjudgement of market trends, and under-diversification of portfolios. Overconfident investors tended to ignore expert advice and rely on gut feeling or past "successes," which may or may not have been based on sound strategy. These findings align with the studies of Odean (1999) and Barber & Odean (2001), which highlight that overconfident investors often earn lower returns due to excessive trading.

The study also found a significant presence of confirmation bias, particularly among less experienced investors. Respondents tended to seek information that supported their existing views while disregarding contradictory data. This behaviour was often reinforced by selective news consumption and reliance on peer opinions, especially from social media and financial WhatsApp groups. The correlation between confirmation and herding behaviour was notable—investors who sought confirming evidence were also more likely to follow crowd behaviour, ignoring fundamental analysis in favour of popular trends. Herding bias was especially pronounced during periods of market volatility. Many investors admitted to investing in stocks or mutual funds simply because others in their circle were doing the same. The influence of family members, colleagues, and financial influencers emerged as a strong driver of such behaviour. This aligns with the findings of Bikhchandani et al. (1992), who demonstrated how individuals tend to mimic others' actions when faced with uncertainty. In West Singhbhum's semi-urban setting, community influence appeared to play a stronger role than institutional advice. Hindsight bias was another key behaviour observed. A considerable number of investors believed they had predicted past market outcomes accurately, even when there was no supporting data. This false sense of predictive ability contributed to overconfidence in future decisions. Such behaviour not only distorts learning from past mistakes but also fosters a cycle of cognitive reinforcement, where individuals continue to make the same errors while believing in their infallibility. Optimism bias, while less dominant compared to the others, was still present. Many investors, especially from higher income and younger age groups, displayed unrealistic expectations about future market performance. This led to risky investment choices without adequate assessment of downside risk. These findings echo the work of Shefrin (2002), who observed that optimistic investors often fail to hedge against potential losses due to a belief in continuous market growth. From a demographic perspective, the findings reveal interesting trends. Younger investors (aged 25–35) were more likely to exhibit overconfidence and hindsight bias, while female investors displayed higher herding and confirmation tendencies. Less experienced investors were found to be more vulnerable to all five biases, particularly optimism and herding, indicating the need for targeted awareness programs. Education level also influenced bias patterns—investors with postgraduate degrees showed slightly lower susceptibility to cognitive biases, though not significantly enough to rule out the influence altogether. The findings collectively underscore a critical insight: retail investors are far from rational, and their decisions are deeply impacted by a complex mix of psychological factors and socio-cultural influences. These biases do not operate in isolation but often interact with one another, amplifying their effect. For instance, overconfidence combined with hindsight can lead to aggressive trading, while confirmation bias paired with herding results in trend-based investing with minimal analysis.

These behavioural patterns have important implications for financial advisors, regulators, and policy-makers. There is an urgent need to go beyond generic financial literacy programs and introduce behaviourally informed interventions. Financial planning tools, advisory platforms, and educational content should be customized to help investors recognize and mitigate their own biases. Moreover, fintech applications could incorporate nudges or alerts when irrational patterns (such as overtrading or herd-following) are detected. In summary, the study confirms that behavioural biases significantly influence investment decisions among retail investors in West Singhbhum. It emphasizes the need for financial education that is not just technical, but also psychological, helping investors become aware of their cognitive traps and improve their decision-making through self-regulation and structured guidance.

CONCLUSION:

The study concludes that behavioural biases play a significant role in shaping the investment decisions of retail investors in West Singhbhum. Among the five biases examined—overconfidence, hindsight, confirmation, herding, and optimism—overconfidence and confirmation bias emerged as the most dominant, often leading to irrational investment behaviour. The analysis also reveals that demographic factors like age, gender, and investment experience influence the degree of susceptibility to these biases. These findings highlight the urgent need for behaviourally-informed financial education and advisory support to help investors recognize and overcome these biases, thereby making more rational and informed investment decisions.

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