

Understanding Investment Behaviour: A Review of Cognitive, Emotional, and Social Biases

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Abstract:

Behavioural finance has emerged as an important field of inquiry, offering deeper insights into the ways psychological factors influence investment decisions beyond traditional financial theories. This study seeks to develop a comprehensive understanding of behavioural biases by systematically reviewing existing literature on cognitive, emotional, and social influences shaping investor behaviour. Adopting a structured review methodology, the paper synthesizes key empirical findings, identifies recurring patterns and inconsistencies, and highlights critical gaps within the current body of research. The review further outlines potential directions for future studies aimed at strengthening theoretical and practical understanding in this domain. By enriching the discourse on investor psychology, the findings of this study provide meaningful implications for academics, financial practitioners, and policymakers seeking to design more informed investment strategies and regulatory frameworks. (Rewritten for better academic presentation)

Key Words: Behavioural Finance, Behavioural Biases, Investment Decisions, Financial Literacy, Investment design, Investor's Psychology. (more relevant and sync between research title, abstract and core of research)

Introduction:

Traditional financial theories have long been grounded in the assumption that investors act rationally, consistently seeking to maximize returns while efficiently processing available information. Models such as the Efficient Market Hypothesis and expected utility theory rest on this premise of rational decision-making. However, growing empirical evidence has challenged these assumptions, revealing that investor behaviour is often influenced by psychological, emotional, and social factors. These deviations from rationality have contributed to market anomalies that cannot be adequately explained by conventional financial frameworks. (enthusiastic, positive and encouraging paragraph added to meet submission standards)

Behavioural biases affect individual investors' investment decisions, which often lead to undesirable results. Investment behaviour has long been studied through rational economic theories, such as the Efficient market hypothesis (1970), which assumes investors act rationally and the market reflects all available information. However, financial decision-making in the real world often

differs from these assumptions due to psychological influences. Behaviour finance was pioneered by Kahneman and Tversky (1979) and challenged traditional financial theory by showing that investors are vulnerable to systematic biases that affect their decisions. These biases can be classified into cognitive, emotional and social biases, each of which has different effects on investment behaviour (Kahneman & Tversky, 1979). Understanding these biases can help investors recognize their own tendencies and make more rational and objective investment decisions. This research aims to gain a comprehensive understanding of these behavioural biases and their impact on individual investment decisions. The topic is particularly relevant in today's dynamic financial landscape, where behavioural factors are increasingly influencing market trends. Recognizing these biases is essential for individuals and financial professionals to develop strategies to mitigate their negative effects and improve decision-making processes.

This review paper aims to synthesize existing literature on cognitive, emotional, and social biases influencing investment behaviour. Through a systematic examination of prior research, the study

seeks to identify key findings, highlight gaps within the existing body of knowledge, and propose meaningful directions for future research. In particular, the review explores various types of behavioural biases and examines how these biases shape and influence investors' decision-making processes. (Added to meet submission standards)

The findings of this study will provide valuable insights into behavioural finance, contributing to the broader understanding of investor psychology. Additionally, the research will help investors, financial advisors, and policymakers design interventions that promote rational decision-making and financial well-being. By bridging the gap between traditional finance and behavioural economics, this study seeks to offer a more holistic view of investment behaviour in modern financial markets.

Behavioural finance emerged as a response to the limitations generating insights from psychology, sociology, and economics to better understand real-world investment behaviour. The field emphasizes that investors are not always fully rational; instead, their decisions are frequently shaped by cognitive shortcuts, emotional responses, and social influences. Biases such as overconfidence, loss aversion, herd behaviour, and anchoring have been shown to significantly affect investment choices, portfolio construction, and market outcomes. As financial markets grow increasingly complex and accessible, understanding these behavioural influences has become both academically significant and practically relevant. (added to meet submission standards)

Conceptual Framework of Behavioural Biases in Investment Decision-Making:

This conceptual framework presents a structured classification of behavioural biases that influence investment decision-making. Drawing from established behavioural finance literature, the biases are grouped into cognitive, emotional, and social categories to reflect distinct psychological and social mechanisms. Each category highlights commonly researched biases that lead investors to deviate from rational financial behaviour. This framework provides a systematic basis for understanding how these biases shape investment choices and market

outcomes. These are: (Adjusted for logical coherence)

1. **Cognitive Biases (Errors in Thinking and Information Processing) (additional)**
 - a. Overconfidence bias: Overconfidence bias in investment decisions arises when investors overestimate their knowledge, analytical abilities, or capacity to forecast market trends. This bias frequently results in excessive risk-taking, higher trading activity, and inadequate portfolio diversification, which collectively reduce overall returns. Moreover, overconfident investors often underestimate risks, disregard professional advice, and rely disproportionately on their own judgments, assuming that their insights are superior to those of the market. (Edited to meet submission standards)
 - b. Anchoring bias: It refers to a tendency of human beings to rely heavily on the first information encountered when making decisions. This initial information serves as a reference point that influences subsequent judgments and decisions. such as a stock's past price or an analyst's forecast. This reliance can result in irrational valuation decisions, causing individuals to hold onto losing stocks in the hope of a rebound rather than making objective assessments based on market conditions (Slovic, 1972).
 - c. Confirmation bias: It is a tendency to seek, interpret, support, and remember information in a way that confirms or supports its beliefs and previous values. The confirmation bias occurs when investors seek information that supports existing beliefs while ignoring contradictory evidence. This leads to biased decision-making and investors cannot critically analyse market risks and trend(Nickerson, 1998). For example, a bullish investor can only read an optimistic report about a stock without disregarding warning signs of a potential recession.
 - d. The framing effect: The framing effect affects investment decisions based on the presentation of information. Investors tend to react differently depending on whether an investment opportunity is framed from the perspective of profits or losses. Studies have shown that when decisions are framed as avoiding losses rather than achieving profits, people are more likely to

take risks, which can affect risk behaviour in financial markets.

2. Emotional Biases (Influence of Feelings and Psychological States)

- a. Loss Aversion: Loss aversion refers to the cognitive bias wherein individuals exhibit a stronger preference for avoiding losses than for obtaining equivalent gains. This tendency results in the psychological impact of losses being perceived as more significant than the satisfaction derived from comparable gains, thereby fostering risk-averse behaviour in decision-making processes.
- b. Regret aversion: Regret aversion is the fear of making decisions that could lead to future regret, causing individuals to avoid taking action or to choose options that minimize potential regret, even if they are not optimal.
- c. The disposition effect: The disposition effect describes investors' tendency to prematurely sell profitable assets to realize gains while retaining underperforming investments in anticipation of a rebound. First introduced by Shefrin and Statma (Shefrin & Statman, 1985), this behavioural bias reduces overall portfolio returns by curtailing the growth of successful investments and prolonging exposure to financial losses.
- d. Endowment Effect: The endowment effect refers to the tendency of individuals to allot higher value to assets they own compared to identical assets they do not own. This bias, identified by Thaler, causes investors to hold onto underperforming stocks due to emotional attachment, even when selling would be the more rational decision (Thaler, 1980). The reluctance to part with investments can result in poor portfolio management and lower returns.

3. Social Biases (Influence of Society and Group Behaviour)

- a. Herd Behaviour: Herding bias refers to individuals' tendency to imitate the actions of a larger group, even when such behaviour conflicts with their own beliefs or available information. This collective conformity can contribute to market distortions, including the formation of asset bubbles and the occurrence of financial crashes.
- b. Social Evidence: Social Evidence refers to the tendency of individuals to rely on other people's

actions or opinions to make investment decisions, especially in uncertain situations. This bias can lead investors to blindly follow market trends or recommendations from influencers and financial gurus without conducting their own research. It often results in overvalued asset prices and investment bubbles.

- c. The Bandwagon Effect: The Bandwagon Effect is the tendency to adopt investment decisions simply because many others are doing the same. This bias is closely related to herd behaviour but specifically emphasizes the psychological comfort of conforming to popular trends (Welch, 2000). Investors influenced by the bandwagon effect often jump into trending stocks, IPOs, or speculative assets without evaluating their true financial potential.
- d. Cultural Bias: It refers to the tendency of investors to make financial decisions based on societal norms, traditions, or beliefs rather than rational economic analysis. For example, in some cultures, real estate investment is preferred over stock market investment due to deeply ingrained beliefs about financial security. Cultural bias can limit diversification and result in missed investment opportunities (Guiso et al., 2008).

Literature Review:

Zahera and Bansal's (2018) thorough review of behavioural biases in investment decisions identified 17 key biases, including overconfidence, loss aversion, herding, and mental accounting. They argue these biases cause investors to stray from rational choices, leading to poor portfolio performance and market inefficiencies. The review stresses the importance of further research into how demographics and culture affect the strength of these biases.

Tanuatmodjo et al. (2024) in their review paper aim to explore the influence of behavioural biases on individual retirement planning, focusing on cognitive biases (e.g., overconfidence, representativeness) and emotional biases (e.g., self-control, regret aversion). Using a Systematic Literature Review (SLR) approach, the research revealed a low awareness among Indonesians regarding investment decision-making.

A review by Singh, Bharti, and Maurya (2025) analyzed 134 articles from 2007 to 2025 to examine factors influencing retail investors' decisions. They found that common biases like overconfidence, anchoring, herding, and loss aversion play a significant role, often causing investors to have poorly diversified portfolios and trade too frequently. The authors noted that these biases interact with other factors, such as an investor's financial literacy, their perception of risk, and broader economic conditions. They particularly emphasized the role of financial education and digital financial services in helping to reduce irrational investment behaviours. This research offers a current perspective on investor psychology, especially in emerging markets and technology-focused trading environments.

Badola et al (2024) systematically reviewed 71 studies and identified 24 behavioural biases affecting investment decisions, including overconfidence, herd behaviour, loss aversion, and anchoring. These biases contribute to irrational financial choices and market inefficiencies. The study categorizes biases into a structured framework, emphasizing their impact on risk perception and investment performance. It concludes that financial literacy and awareness can help mitigate these biases, improving investor decision-making.

Almansour et al. (2023) examined the influence of behavioural finance factors on risk perception and investment decision-making, focusing specifically on herding behaviour, the disposition effect, blue-chip bias, and overconfidence. The results revealed that herding behaviour, the disposition effect, and blue-chip bias exert a significant positive impact on risk perception, whereas overconfidence significantly affects only investment decision-making. Moreover, the study highlighted that all four behavioural finance factors indirectly and positively influence investment decision-making through their effect on risk perception.

Bhanushali & Rani (2023) investigates the impact of behavioural finance on decision-making processes and investments. Their study investigates how psychological factors, such as cognitive biases and emotional influences, shape investor behaviour and investment outcomes. By examining these dynamics, researcher contributes to understanding

how behavioural finance principles can inform more effective investment strategies and decision-making frameworks, highlighting the importance of integrating psychological insights into financial analysis and planning.

Wang (2023) in his study explored the impact of behavioural biases on investment decisions, focusing on loss aversion, endowment, framing, and overconfidence biases. These biases can lead to irrational choices and poor financial outcomes. The study recommends using diverse information sources, objectively assessing knowledge, seeking professional advice, and regularly reviewing portfolios. Visualizing potential outcomes helps investors better assess risk and reward. The study underscores the importance of recognizing and mitigating biases to improve investment decisions.

In a 2022 systematic literature review, Rosyidah and Pratikto (2022) analysed 51 publications to propose future research directions on behavioural biases in financial decision-making. Their review showed that while biases like overconfidence and herding are still the most researched, there's growing interest in how culture, financial literacy, and digital trading platforms influence investor behaviour. The authors pointed out research gaps related to how gender and generational cohorts affect biases and how financial education might help reduce them. This work provides a valuable guide for researchers to explore new areas and create strategies for more rational decision-making.

Kartini & Nahda (2021) in their study examines cognitive and emotional biases in Indonesian investors, focusing on anchoring, representativeness, loss aversion, overconfidence, optimism, and herding behaviour. Using a quantitative survey of 165 investors in Yogyakarta and one-sample t-tests for analysis, the study finds that all biases significantly influence investment decisions. The conclusion emphasizes the need for awareness of these biases to improve decision-making and reduce their negative impact.

Rasool & Ullah (2020) investigated the relationship between financial literacy and behavioural biases among individual investors in the Pakistan Stock Exchange. Their study provides empirical evidence on how cognitive biases, such as overconfidence and herding behaviour, influence investor decisions. By

analysing these dynamics, the research highlights the role of financial literacy in mitigating biases and improving investor outcomes, contributing valuable insights to the field of behavioural finance and investor behaviour studies.

Atif Sattar et al. (2020) in their study investigates how various behavioural biases influence investment decisions under uncertainty. The authors focus on biases such as overconfidence, representativeness, anchoring, regret aversion, hindsight, herding effect, and home bias. The study's empirical analysis reveals that heuristic-driven behaviours, such as overconfidence and representativeness, have a more pronounced effect on investment decisions compared to biases rooted in prospect theory or personality traits. This suggests that investors often rely on mental shortcuts, which can lead to systematic errors in judgment.

Jain et al. (2019) in their study employed the Fuzzy Analytic Hierarchy Process (FAHP) to evaluate and rank behavioural biases influencing individual equity investors in Punjab, India. They identified eight key biases: overconfidence, representativeness, anchoring, availability, regret aversion, loss aversion, mental accounting, and herding. The FAHP methodology revealed that overconfidence and loss aversion were the most influential biases affecting investment decisions. These findings underscore the significant role of psychological factors in investment behaviour, suggesting that increased awareness and mitigation of such biases could lead to more rational decision-making among investors.

Asandimitra and Novianggie (2019) investigated the influence of behavioural, cognitive, and emotional biases on investment decisions among college students, with financial literacy considered as a moderating variable. The findings revealed that herding bias, risk perception, overconfidence, representativeness, and financial literacy significantly affect investment decisions, whereas the disposition effect and regret aversion showed no significant impact. The study concluded that behavioural biases may lead to irrational and suboptimal investment choices. It further emphasized the critical role of financial education in enabling students to make more rational and informed investment decisions, thereby enhancing their financial outcomes.

Ady (2018) examined cognitive and psychological biases affecting Indonesian investors in this study. Key biases like overconfidence, loss aversion, and herd behaviour significantly influence investment decisions. Overconfidence leads to excessive risk-taking, while loss aversion results in overly conservative strategies. Herd behaviour can cause market inefficiencies. The study emphasizes the need to recognize these biases and suggests tailored educational programs to improve investment outcomes. It contributes to understanding how cognitive biases shape financial behaviour in specific cultural and economic contexts.

Isidore and P (2018) investigated the relationship between income levels and behavioural biases among 436 secondary equity investors in Chennai. They find that higher-income investors are less prone to biases like mental accounting, anchoring, and availability, but exhibit greater overconfidence. Lower-income investors are more susceptible to biases, including loss aversion and representativeness. The study suggests that lower-income investors need tailored financial advice to mitigate these biases, as limited access to expert advice and financial literacy contribute to higher bias susceptibility.

Charles and Kasilingam (2016) examined how various behavioural biases influence the investment decisions of equity investors in Tamil Nadu, India. The authors identify six key biases mood, emotions, heuristics, framing, gambling, and personality and analyze their impact on investment behaviour. The findings reveal that mood and emotions play a crucial role in shaping investment preferences, while heuristics and framing effects result in suboptimal decision making. Gambling tendencies and personality traits further contribute to risky investment patterns. The study concludes that behavioural biases lead to systematic deviations from rational investment strategies, emphasizing the need for investor awareness and financial literacy programs to mitigate their adverse effects.

Mishra and Metilda (2015) examined the impact of investment experience, gender, and education level on overconfidence and self-attribution bias among 309 mutual fund investors. Findings indicate that overconfidence is more prevalent in men and tends to increase with investment experience and education. Self-attribution bias also rises with

education but shows no significant correlation with gender or investment experience. Additionally, the study reveals a significant association between self-attribution and overconfidence, highlighting their interconnected influence on investment behaviour.

Benartzi and Thaler (2007) in their article explores how cognitive biases like loss aversion and overconfidence, along with heuristics such as mental accounting, significantly influence retirement savings decisions. Investors often exhibit naïve diversification, framing effects, and a strong status quo bias, leading to suboptimal outcomes. The research emphasizes the need for financial education and policy interventions to mitigate these biases and improve retirement savings behaviour.

Gap Identification: (Improved to enhance coherence and relevance)

- Most existing studies examine cognitive and emotional biases in isolation, with limited integration of social biases and insufficient analysis of their combined or interactive effects on investment decision-making.
- The majority of behavioural finance research is concentrated in developed economies, resulting in inadequate understanding of how behavioural biases operate in emerging and culturally diverse markets, particularly in the Indian context.
- Although financial literacy is often discussed as a mitigating factor, there is limited empirical evidence evaluating the effectiveness of specific educational or behavioural interventions in reducing biased investment behaviour.
- Existing literature predominantly focuses on equity market participants, with comparatively less attention given to other asset classes such as cryptocurrencies, real estate, and alternative investments, where behavioural biases may manifest differently.
- There is a lack of longitudinal studies that examine how behavioural biases evolve over time in response to market cycles, economic shocks, or changes in investor experience.
- Many studies rely on self-reported data and survey-based methods, which may be subject to response bias, highlighting the need for

behaviour-based and experimental research approaches.

Findings: (again for sync, link and to make it more meaningful)

The findings indicate that cognitive, emotional, and social biases play a significant role in shaping investment behaviour, often leading to irrational decision-making. Cognitive biases distort how investors process information, while emotional biases affect their perception of risk. Social biases further contribute to market inefficiencies, sometimes resulting in speculative bubbles and financial crises. Common biases such as overconfidence, loss aversion, herding behaviour, and anchoring frequently impact investment decisions. Additionally, demographic factors like age, income, and gender influence the prevalence of these biases among investors. While financial literacy and awareness can help mitigate their effects, the extent of their effectiveness depends on an individual's experience and background. Research suggests that behavioural training, structured decision-making frameworks, and diversified investment strategies can help reduce the adverse effects of these biases, leading to more rational investment choices.

Conclusion:

Behavioural biases significantly influence investment decisions, often resulting in suboptimal financial outcomes. While cognitive and emotional biases have been widely studied, social biases remain relatively underexplored. Investors' psychological tendencies frequently contradict traditional finance theories, highlighting the need for a more integrated approach to understanding investor behaviour. Future research should examine behavioural biases in emerging markets, explore effective intervention strategies, and analyse their impact across different asset classes. Addressing these biases is crucial for improving financial decision-making and enhancing market efficiency.

Recommendations: (Updated for better clarity and accuracy, opening new doors for further research and making research more preferred for future references)

To enhance investment decision-making and reduce the adverse effects of behavioural biases, targeted

strategies and interventions are necessary. The following recommendations focus on investor education, policy measures, and financial planning approaches:

- **Investor Awareness Programs:** Develop targeted financial education initiatives to increase awareness of behavioural biases and equip investors with practical bias-mitigation strategies.
- **Decision Support Tools:** Implement technology-driven decision support systems that provide data-based, unbiased investment recommendations and reduce emotional influence.
- **Diversification Strategies:** Encourage portfolio diversification to limit the impact of behavioural biases, particularly the endowment effect and over-concentration risk.
- **Behavioural Finance Integration:** Integrate behavioural finance principles into financial planning and advisory services to improve decision quality and investor outcomes.
- **Future Research:** Expand research on behavioural biases in emerging markets, with specific focus on alternative asset classes such as cryptocurrencies and real estate.
- **Policy Interventions:** Introduce regulatory frameworks and market safeguards to curb herd behaviour and discourage excessive speculative investment practices.
- **Customized Financial Literacy Programs:** Design demographic-specific financial literacy initiatives to address varying levels of bias susceptibility among different investor groups.
- **Structured Investment Strategies:** Promote disciplined investment approaches, including regular portfolio reviews and systematic planning, to support rational decision-making.

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