



## The Role of Behaviour Biases in Individual Investment Decision-Making.

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### Abstract

Investor decision-making is often influenced by psychological and cognitive biases, leading to deviations from rational behavior as predicted by traditional financial theories. This study examines the impact of behavioral biases on financial decision-making, focusing on key biases such as overconfidence, loss aversion, herd mentality, and mental accounting. By analyzing their effects on investment choices, asset pricing, and market efficiency, this research highlights how these biases contribute to anomalies in financial markets. The paper also explores the implications of behavioral finance in portfolio management and risk assessment, emphasizing strategies to mitigate these biases. Through a review of existing literature and empirical analysis, this study aims to provide insights into improving investor rationality and decision-making processes. The findings underscore the importance of awareness and corrective measures in behavioral finance, ultimately contributing to more efficient and informed investment strategies.

**Keywords:** Behavioral Finance, Investor Psychology, Cognitive Biases, Overconfidence, Loss Aversion, Herd Behavior, Market Efficiency, Investment Decision-Making, Risk Assessment.

### Introduction

Investment decisions are a fundamental aspect of financial planning, influencing wealth accumulation and long-term financial security. Traditional financial theories, such as the Efficient Market Hypothesis (EMH) and Modern Portfolio Theory (MPT), assume that investors act rationally, process all available information efficiently, and make logical decisions to maximize returns. These theories suggest that markets are efficient, meaning that asset prices fully reflect all available information, leaving little room for individual judgment errors. However, in reality, investors often exhibit irrational behavior, deviating from these theoretical predictions due to psychological and emotional influences. This has led to the rise of behavioral finance, a field that integrates psychology and economics to understand how cognitive and emotional biases impact financial decision-making.

The complexity of investment decision-making arises from a combination of economic, psychological, and situational factors. Individual investors, unlike institutional investors, often lack professional expertise and access to extensive market data. Consequently, their decisions are frequently guided by intuition, emotions, past experiences, and external influences, rather than purely rational analysis. This tendency makes them susceptible to behavioral biases, which can lead to suboptimal investment choices, such as excessive risk-taking, irrational trading, or failure to diversify portfolios. Some of the most common behavioral biases affecting individual investors include:

1. **Overconfidence Bias** – Investors tend to overestimate their knowledge, skills, or ability to predict market movements, leading to excessive trading and increased exposure to risk.
2. **Loss Aversion** – Investors experience the pain of losses more intensely than the pleasure of equivalent gains, making them reluctant to sell loss-making investments or take necessary risks.
3. **Herd Mentality** – Many investors follow market trends or the decisions of others without conducting their own analysis, often resulting in speculative bubbles or panic-driven sell-offs.
4. **Anchoring Bias** – Investors rely heavily on an initial reference point (such as a past stock price) when making decisions, even when new information suggests otherwise.
5. **Mental Accounting** – Investors treat money differently based on its source or intended use, leading to inefficient allocation of financial resources.
6. **Regret Aversion** – Fear of making a wrong decision and experiencing regret can cause investors to avoid necessary risk-taking or hold onto poor investments for too long.

These biases can have significant consequences, leading to irrational trading behavior, financial losses, and inefficient portfolio management. For example, during market downturns, loss-averse investors may panic and sell their assets at a low price, only to re-enter the market later at a higher price, thereby locking in their losses. Similarly, overconfidence can lead to excessive trading, resulting in higher transaction costs and lower overall returns.

Understanding the role of behavioral biases in investment decisions is essential for improving financial literacy and investment outcomes. By recognizing these biases, investors can develop more rational decision-making strategies, reduce emotional interference, and implement disciplined investment approaches. Financial advisors, policymakers, and educators can also leverage behavioral finance insights to design better financial education programs, risk assessment tools, and investment products that align with investor psychology.

This research aims to explore the impact of behavioral biases on individual investment decisions, analyzing how psychological factors influence financial choices and market outcomes. By bridging the gap between traditional finance theories and real-world investor behavior, this study seeks to contribute valuable insights into the challenges and opportunities faced by individual investors. The findings will not only help investors make more informed and rational decisions but also assist financial institutions in tailoring their strategies to accommodate behavioral patterns in investment behavior.

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## Literature Review

The evolution of behavioral finance from traditional finance theories is a central theme, as highlighted by Prosad et al. (2015), who emphasize the insufficiency of standard finance theories in explaining market anomalies and advocate for the integration of behavioral theories like prospect theory to bridge the gap between theoretical frameworks and actual market conditions. This shift underscores the recognition that investors are not always rational, and their decisions are significantly influenced by psychological factors. Madaan and Singh (2019) further delve into this by exploring the impact of specific biases—overconfidence, anchoring, disposition effect, and herding—on investment decisions within the National Stock Exchange, revealing that overconfidence and herding have a substantial positive impact, thus confirming the prevalence of psychological errors among individual investors. Similarly, Sattar et al. (2019) examine a broader spectrum of behavioral biases, including heuristics, prospects, personality characteristics, feelings, moods, and ecological factors, finding that heuristic behaviors, in particular, significantly influence investment decisions under uncertainty.

The Influence of psychological and emotional factors on financial decisions is consistently documented across various studies. Singh (2014) highlights how past experiences, herd behavior, personal judgment, overconfidence, regret aversion, expert advice, and the disposition effect shape investor behavior. Jain (2022) extends this by quantifying the impact of behavioral biases on investors' decision-making and risk tolerance, demonstrating a significant influence. Riaz and Iqbal (2015) focus on optimism, overconfidence, illusion of control, and self-control, revealing their significant positive impact on investment decisions in the Karachi Stock Exchange. Poudel et al. (2024) further explore overconfidence, disposition effect, herding, and risk aversion, indicating that overconfidence, disposition effect, and risk aversion significantly affect investment decisions, while financial literacy moderates these effects. Dhungana et al. (2018) examine demographic influences, finding associations between age, investment duration, and herding, while Harene and Julie (2024) focus on the impact of overconfidence, group behavior, fear of missing out (FOMO), and loss aversion on IPO investments.

Studies also explore the specific mechanisms through which behavioral biases affect investment decisions. Sharma and Sharma (2019) develop a conceptual framework identifying overconfidence, risk tolerance, social influence, representativeness, availability, and herding as key antecedents. Agarwal (2021) finds that mood, emotional factors, heuristics, personality, and overconfidence significantly influence investment choices. Sajeev et al. (2021) examine Gen Z investors, revealing that financial literacy, risk attitude, and information search positively impact decision-making, while herding has a weak negative relationship. Armansyah (2021) focuses on overconfidence and mental accounting, demonstrating their significant impact on Indonesian investors. Adil et al. further examine the impact of overconfidence, risk aversion, herding and disposition on investment decisions among gender, and the moderating effect of financial literacy. Nareswari et al. examine the impact of sentiment investors, overconfidence, salience, overreaction, and herd behavior on investment decision making. O. and Ilaboya O. J. (2019) investigate whether behavioral biases rather than rationalism shape investment decisions in Nigeria, finding no significant relationship with representativeness, overconfidence, loss aversion, or regret aversion. Alsedrah and Ahmad (2014) review the impact of heuristics bias, calling for more quantitative studies.

Madhuri et al. (2024) provide a comprehensive overview of behavioral finance, emphasizing the importance of recognizing and mitigating biases to enhance financial decision-making and market efficiency. Manani et al. (2023) find that overconfidence, representativeness, emotional, herd mentality and confirmation biases significantly influence investment behavior. Nkukpomu et al. (2020) reveal that overconfidence, regret, belief, and the "snakebite" effect significantly influence investment decisions in developing countries. Joshi and Badola (2022) highlight the impact of loss aversion, status quo bias, and optimism bias on individual investors in Indian stock exchanges. Kamoune and Ibenrissoul (2022) contrast traditional finance's assumption of rational behavior with behavioral finance's evidence of psychological biases. Sapkota (2022) explores the influence of herding, loss aversion, overconfidence, and risk propensity on stock investment decisions among master-level students. Finally, Sharma and Siddiqui (2025) and Parkash and Parkash (2024) summarize the profound impact of behavioral biases on investment decisions and market dynamics, stressing the need to recognize and mitigate these biases to improve market efficiency and investor outcomes.

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## Research Methodology

This research methodology outlines a study designed to investigate the role of behavioral biases in individual investment decision-making, addressing the problem of suboptimal investment choices that result from these biases. The primary objectives are to understand customer investment decisions,

analyze the impact of specific biases (herding, home bias, overconfidence, and disposition effects) on investment outcomes, and explore the broader range of biases affecting investment choices. The theoretical framework emphasizes that behavioral biases cause deviations from rational decision-making, leading to poor financial outcomes, and aims to improve decision quality and mitigate risks associated with trend-chasing and impulsive behavior.

The study employs a descriptive research design, utilizing surveys and fact-finding inquiries to accurately describe the investment behaviors and biases present within the target population. This approach allows for the collection of detailed information regarding “who, what, when, where, and how” investors make decisions, though it does not aim to establish causal relationships. Primary data will be collected through questionnaires, enabling direct gathering of original data from respondents. This method is chosen to capture the specific experiences and perceptions of individual investors within the study’s scope.

The data collection instrument is a structured questionnaire, designed to elicit quantifiable responses that can be statistically analyzed. The sampling frame is the Surat District, and a simple random sampling technique will be used to select 100 respondents, ensuring a representative sample within the given geographic area. The tools and techniques employed for data analysis include U tests, H tests, and frequency analysis, which will help in identifying patterns and significant relationships within the collected data.

The study acknowledges several limitations, including the potential for self-reporting bias, the limited sample size and demographic scope, the lack of real-world application, time constraints, and the influence of market conditions, as well as cultural and psychological variability among respondents. These limitations are crucial considerations when interpreting the findings and suggest areas for future research to expand upon and validate the results.

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## Data Interpretation

### *Investment Behavior Analysis Based on Demographics and Psychological Factors*

The investment behavior analysis reveals significant trends across various demographic and psychological factors. The data suggests that younger to middle-aged individuals (18-45) form the largest investor base, while engagement declines in older demographics (46+). Gender-wise, male investors outnumber females, indicating either a higher interest in investment markets or greater financial risk tolerance among men. Additionally, educational background plays a crucial role in investment patterns, with a higher proportion of investors holding bachelor's and postgraduate degrees, suggesting that financial literacy and education influence investment decisions.

Income levels also significantly affect investment behavior. Investors earning more than ₹5,00,000 annually form the highest investing group, followed by those in the ₹1,00,000-₹5,00,000 range. Meanwhile, lower-income groups (<₹50,000 and ₹50,000-₹1,00,000) contribute equally but less significantly. The majority of investors are salaried employees, followed closely by business professionals, while retirees form the smallest investing group.

Marital status doesn't appear to significantly impact investment behavior, as both married and single individuals invest at similar rates. In terms of decision-making, 31% rely on their own research or financial advisors, 26% seek guidance from friends or family, and 12% make decisions based on intuition. Investment preferences show that 38% invest in stocks, 32% in mutual funds, and 19% in savings accounts, while bonds and real estate remain the least preferred options (3%).

Behavioral factors significantly influence investment decisions. About 25% of investors take financial experts' advice, while 22% consider risk levels and current market trends. Additionally, 18% evaluate past performance, and 13% analyze economic outlooks before investing. A majority (38%) diversify globally, indicating low home bias, whereas 31% admit to home bias, preferring domestic markets. Overconfidence is another dominant bias affecting investor decisions, followed by herding behavior and the disposition effect.

Regarding risk tolerance, most investors hold onto losing investments, hoping for recovery, while only a small proportion decisively cut losses. Similarly, investors generally exhibit patience in holding winning investments rather than selling prematurely due to market fears. Confidence levels among investors are high, with a majority feeling "strongly confident" or "confident" in their decisions, though a minority remain uncertain.

Most investors prefer long-term strategies over frequent portfolio changes based on short-term market movements. While 47% are neutral about investing more during market upswings, 21% actively increase investments in bullish conditions. Additionally, 54% find it difficult to accept losses during strong markets, highlighting loss aversion. The belief that more information enhances decision-making is prevalent (53%), reinforcing the importance of financial education.

### *Statistical Insights*

#### Mann-Whitney U Test Results:

Investors significantly differ in following others' investment choices ( $p = 0.003$ ) and relying on gut feelings ( $p = 0.021$ ).

No significant difference exists in behaviors like investing more when the market is up, adjusting portfolios quickly, and accepting losses ( $p > 0.05$ ).

**Chi-Square Test Results:**

Education level significantly affects investment behavior.

The belief that more information improves decision-making ( $p = 0.040$ ), the tendency to hold onto losing investments ( $p = 0.000$ ), and quick portfolio adjustments after underperformance ( $p = 0.014$ ) show strong educational influences.

Relying on gut feelings has a borderline significance ( $p = 0.057$ ), indicating a potential link with education level.

Test Statistics					
	[Do you invest more when the market is up?]	[Are your decisions influenced by short-term market trends?]	[Do you follow others' investment choices?]	[Is it hard to accept losses during a strong market?]	[Do you believe more information improves your decisions?]
Mann-Whitney U	711.000	562.500	440.500	685.500	657.500
Wilcoxon W	901.000	752.500	630.500	875.500	3978.500
Z	-.547	-1.895	-2.995	-.809	-1.074
Asymp. Sig. (2-tailed)	.584	.058	.003	.419	.283

Test Statistics				
	[Are you comfortable relying on gut feelings to invest?]	[Do you sell investments immediately when they lose value?]	[Do you hold onto losing investments, hoping they recover?]	[Do you adjust your portfolio quickly after underperformance?]
Mann-Whitney U	514.000	600.500	695.000	678.500
Wilcoxon W	704.000	790.500	4016.000	849.500
Z	-2.307	-1.544	-.323	-.480
Asymp. Sig. (2-tailed)	.021	.123	.747	.631

The Mann-Whitney U test results indicate that there are significant differences in how investors follow others' investment choices ( $p = 0.003$ ) and rely on gut feelings ( $p = 0.021$ ), suggesting that some investors are more influenced by external opinions and intuition than others. However, other factors such as investing more when the market is up, being influenced by short-term trends, accepting losses, and adjusting portfolios quickly have  $p$ -values greater than 0.05, indicating no statistically significant differences between groups. Additionally, the tendency to hold onto losing investments ( $p = 0.747$ ) does not vary significantly among respondents, meaning most investors behave similarly in this aspect. Overall, while intuition and herd mentality differ among investors, other decision-making behaviors appear to be relatively consistent across the groups analyzed.

Test Statistics					
	[Do you invest more when the market is up?]	[Are your decisions influenced by short-term market trends?]	[Do you follow other's investment choices?]	[Is it hard to accept losses during a strong market?]	[Do you believe more information improves your decisions?]
Chi-Square	1.711	1.384	3.891	2.904	8.296
df	3	3	3	3	3
Asymp. Sig.	.635	.709	.273	.407	.040

Test Statistics				
	[Are you comfortable relying on gut feelings to invest?]	[Do you sell investments immediately when they lose value?]	[Do you hold onto losing investments, hoping they recover?]	[Do you adjust your portfolio quickly after underperformance?]
Chi-Square	7.541	3.983	20.631	10.567
df	3	3	3	3
Asymp. Sig.	.057	.263	.000	.014

The chi-square test results indicate that education level significantly impacts certain investment behaviours. The belief that more information improves decisions ( $p = 0.040$ ), the tendency to hold onto losing investments ( $p = 0.000$ ), and adjusting portfolios quickly after underperformance ( $p = 0.014$ ) show significant differences across education levels. However, behaviours like investing more when the market is up, being influenced by short-term trends, following others' choices, and selling after losses have  $p$ -values  $> 0.05$ , indicating no strong association with education level. The borderline significance for relying on gut feelings ( $p = 0.057$ ) suggests a possible difference that might be more evident with a larger sample. Overall, higher education levels seem to correlate with more strategic and data-driven investment decisions.

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## Conclusion

Behavioural biases have a substantial impact on investment decisions, frequently causing individuals to make irrational choices by relying on psychological shortcuts instead of logical analysis. Common biases such as overconfidence, herding, home bias, and the disposition effect are prevalent among investors. These biases lead to behaviours like overestimating one's knowledge, following the crowd, favouring domestic investments, and holding onto losing investments too long or selling winning ones too early.

Despite many investors acknowledging the influence of biases on their decisions, they often still exhibit bias-driven behaviours that negatively affect their financial outcomes. Emotional factors, including fear, greed, and anxiety, further contribute to impulsive actions, and short-term market trends and external opinions frequently shape investor choices. Consequently, many investors express a preference for professional financial advice over making independent decisions.

To mitigate the adverse effects of biases, financial literacy, self-awareness, risk assessment, and professional guidance are crucial. Strategies such as awareness campaigns, investor education programs, developing critical thinking skills, diversification, and risk management can aid in fostering rational decision-making and achieving sustainable investment growth. Ultimately, recognizing and managing behavioural biases enables investors to make more informed, objective financial decisions.

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