

USE OF COGNITIVE BIASES IN SHARE MARKET INVESTMENT DECISIONS AND ITS CONTRIBUTION IN SATISFYING EXPECTATIONS OF INVESTORS

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ABSTRACT

This study undertakes a comprehensive examination of the influence of cognitive biases on investment decisions in the stock market and their subsequent impact on investor satisfaction. The researcher seeks to elucidate the connection between these biases and the expectations of investors, with a particular focus on identifying common cognitive biases, assessing their role in shaping investment choices, and evaluating their influence on overall satisfaction. A mixed-methods approach was employed, incorporating a survey of a diverse group of investors using Google Forms. This facilitated the collection of valuable primary data regarding their experiences and satisfaction levels when making decisions based on cognitive biases. The findings of this study reveal a significant link between cognitive biases and investor satisfaction. The results underscore the importance of raising awareness about these biases among investors and highlight the need for financial advisors to assist clients in recognizing and managing biases to improve decision-making and satisfaction. This research contributes to the existing body of knowledge on cognitive biases and investment decisions, providing insights for investors, financial advisors, and policy-makers. Future research directions include investigating the long-term impacts of cognitive biases on investment success and exploring strategies for mitigating their effects.

Keywords: Cognitive Biases, Investment Decisions, Financial Advisors, Behavioural Finance.

Introduction

Cognitive biases significantly impact how investors make decisions in the stock market, often leading to irrational behaviours that affect their financial outcomes. For instance, overconfidence can cause investors to overestimate their ability to predict market trends, resulting in excessive trading and risky bets without adequate research. On the other hand, loss aversion makes investors fear losses more than they value gains, leading them to hold onto losing stocks for too long or to sell winning stocks too early to secure quick profits.

Another key bias is the herd mentality, where investors copy the actions of others instead of relying on their analysis. This behaviour can contribute to market crashes when large groups act impulsively. Understanding these biases is crucial for investors who want to make sound financial decisions. By recognizing and addressing these psychological influences, they can enhance their decision-making process and work towards achieving their investment goals more effectively. This study aims to explore how these biases interact and influence stock market decisions, providing insights that can help investors make more informed choices.

Need of the Study

Many investors make poor choices in the stock market because they're influenced by their feelings and beliefs, not just facts and numbers. These biases, like thinking they're too good or fearing losses, can lead to bad decisions. As the stock market gets more complicated, it's important for investors to understand both the numbers and their own feelings. This study aims to explore how these biases affect how people invest. By doing this, we hope to help investors make better decisions and achieve their financial goals.

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Literature Review

Sumit Dhakal and Rajendra Lamsal (April, 2023) conducted study on Nepalese stock market investors reveals widespread cognitive biases. 234 participants showed strong/moderate bias levels. Representativeness, herding, and anchoring biases most influenced investment decisions. Cognitive biases can lead to unfavourable investment outcomes. Recognition and mitigation strategies are recommended.

Fernando Blanco (June, 2017), Cognitive biases deviate individuals from rational decision-making. Conventional perspectives assume individuals act rationally. Biases lead to predictable, systematic errors. Rational individuals weigh costs and benefits. Understanding biases is crucial for better decision-making.

Joyce Ehrlinger et al. (December, 2016), Cognitive schemas (shortcuts) enable quick decisions. Shortcuts can lead to cognitive biases. Biases stem from mental heuristics. Article outlines frequent biases and underlying processes. Understanding biases improves decision-making.

Hershey H. Friedman (July, 2023), Information overload/quick decisions lead to cognitive biases. 200 identified biases cause flawed judgments. Heuristics (mental shortcuts) simplify thought processes. Biases include actor-observer and zero-risk biases. Strategies to mitigate biases enhance decision-making.

Statement of Problem

Cognitive biases can hurt investment decisions in the stock market, leading to irrational behaviours that negatively impact financial outcomes. Issues like overconfidence, loss aversion, and herd mentality can distort how investors see risk and reward, resulting in poor choices and significant losses. These biases not only affect individual investors but also increase market volatility and contribute to negative trends. Despite the urgent need to understand these psychological influences, many investors lack knowledge about how these biases specifically impact their decision-making and overall satisfaction. This gap leaves them vulnerable to costly mistakes and financial struggles.

Objectives

- To study the concept of cognitive biases.
- To analyze the use of cognitive biases in share market investment decisions.
- To examine the contribution of cognitive biases in satisfying expectations of investors.
- To provide suggestions to investors for reducing the effect of cognitive biases.

Statement of Hypotheses

- **Null Hypothesis (H₀):** The investment decisions of share market investors are not affected by cognitive biases.
- **Alternative Hypothesis (H₁):** Share market investors' investment decisions significantly influenced by cognitive bias.

Working Definitions of the Terms Used

- **Cognitive Biases:** These are mistakes in thinking that affect how we make decisions. They can lead us to make choices based on feelings or habits rather than facts.
- **Investment Decisions:** These are choices about where to put your money, like buying stocks or bonds, with the goal of making it grow over time.
- **Investor Satisfaction:** This is how happy or content someone feels about their investments. It's about whether they think their investment choices were good.
- **Behavioural Finance:** This is the study of how people's emotions and biases affect their financial decisions. It looks at why we sometimes make irrational choices with our money.

Data Analysis and Interpretation

- **Analysis of Secondary Data**
 - ¹**Kingfisher Airlines (2012) Loss Aversion:** Investors held onto shares despite worsening finances unwilling to sell at a loss and hoped for turnaround despite unsustainable business. Kingfisher Airlines shut down and stock became worthless leading to Investors facing complete losses.

¹ <https://www.livemint.com/Companies/HETfM8Q1T5Omhmng3yN3EL/Kingfisher-Airlines-slips-to-5th-place-by-market-share.html>

- ¹**Satyam Computers Scam (2009) Availability Heuristic:** Investors relied on media image & reputation ignoring deeper financial analysis. Assumed stability due to public presence. Stock plummeted 75% in days. Investors caught off-guard leading to losses
 - ²**Reliance Communications (2007-2010) Investors' Confirmation Bias:** Investors focused on positive news and optimistic predictions. Ignored debt, competition & management issues. Financial deterioration and unsustainable debt leading to significant investor losses. Eventual bankruptcy filing in 2019.
 - ³**PO Frenzy (2021) Herd Mentality:** Investors followed media hype and social media, ignored financials & business models and believed tech IPOs guaranteed profits. Sharp declines in tech IPOs (e.g., 60%+ drop in Paytm's stock price) leading to significant investors losses.
- **Analysis of Primary Data**

As of January 31, 2024, the National Stock Exchange (NSE) reported that the country had approximately 87 million investors. To explore how cognitive biases influence investors' decision-making, researcher conducted a survey by sending a link to over 250 individuals, resulting in more than 100 responses. This sampling approach provides valuable insights into the trends and patterns among investors, shedding light on the psychological factors that affect their choices in the stock market. The findings from this survey aim to enhance the understanding of investor behaviour and decision-making processes, offering essential information for both individual investors and policymakers.

- **Experience Profile of Respondent Investors**

Table 1: Number of Years of Experience

Years of Experience	No. of Respondents	% of Total Respondents
0 - 1	69	54.8%
2 - 5	41	32.5%
6 - 10	8	6.3%
Above 11	8	6.3%
Total	126	100%

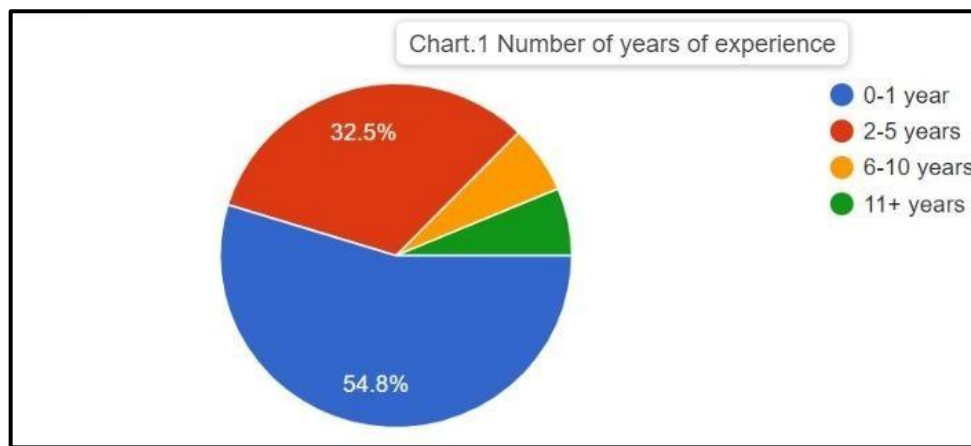


Chart 1: Experience Profile of Respondent Investors

According to the survey conducted by researcher, a notable percentage of participants, specifically 54.8%, reported having only 0-1 years of experience in the stock market. In contrast, 32.5% indicated they possess 2 to 5 years of experience, while a smaller segment, 6.3%, falls within the 6 to 10 years range. Additionally, 6.3% of respondents have more than 11 years of experience in stock trading. The findings reveal that the primary factors influencing the investment decisions of these individuals

¹ <https://www.5paisa.com/blog/satyam-scam>

² <https://www.icmrindia.org/casestudies/catalogue/Business%20Strategy/BSTR599.htm>

³ <https://www.livemint.com/market/stock-market-news/ipo-frenzy-a-bubble-or-the-right-t-strategy-to-enter-a-booming-market-11728302286303.html>

largely revolve around company performance and prevailing market trends. Furthermore, many of these investors exhibit a moderate risk tolerance, suggesting a cautious approach to their investments. Interestingly, their investment experience is notably higher in specific markets, particularly stocks and mutual funds. This indicates that, despite a significant number of investors being relatively new to trading, they are actively influenced by key market indicators and are inclined to engage in investments that align with their risk profiles and investment strategies.

- **Primary Influencing Factors on Investment Decision**

Table 2: Influencing Factors

Sr. No.	Primary Factor Influencing Decision Making	No. of Respondents	% of total Respondents
1	Company performance	45	35.2%
2	Expert Opinion	13	10.4%
3	Market Trends	38	30.4%
4	Personal Intuition	19	15.2%
5	Social media	6	4.8%
6	Nothing	1	0.8%
7	Business Model Analysis	1	0.8%
8	Self-Analysis	1	0.8%
9	Low Risk, Guaranteed Returns, Market Trends etc.	1	0.8%
10	All Experts except social media	1	0.8%
Total		126	100%

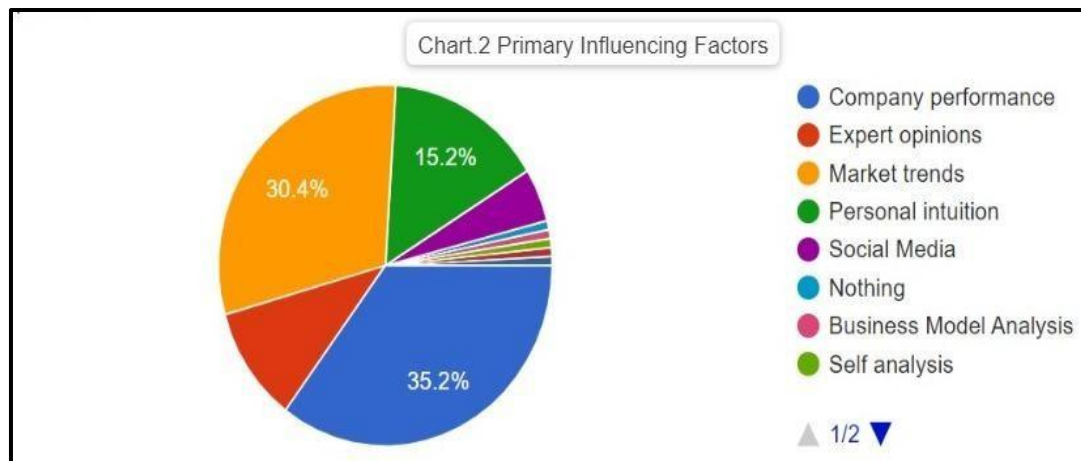


Chart 2: Primary Influencing Factors

Company performance is the primary factor influencing decision-making for 35.2% of respondents. Market Trends is the second most influential factor, with 30.4% of respondents considering it. Expert Opinion, Personal Intuition, and social media are less influential, with 10.4%, 15.2%, and 4.8% of respondents considering them, respectively.

Respondents prioritize company performance and market trends when making decisions. Expert opinions and personal intuition also play a role, but to a lesser extent. Social media has a relatively minor influence on decision-making.

- **Dependence on Cognitive Biases**

Table 3: Dependence on Cognitive Biases

Sr. No.	Dependence on Cognitive Biases	No. of Respondents	% of total Respondents
1	Often	16	12.7%
2	Sometimes	61	48.4%
3	Rarely	34	27%
4	Never	15	11.9%
Total		126	100%

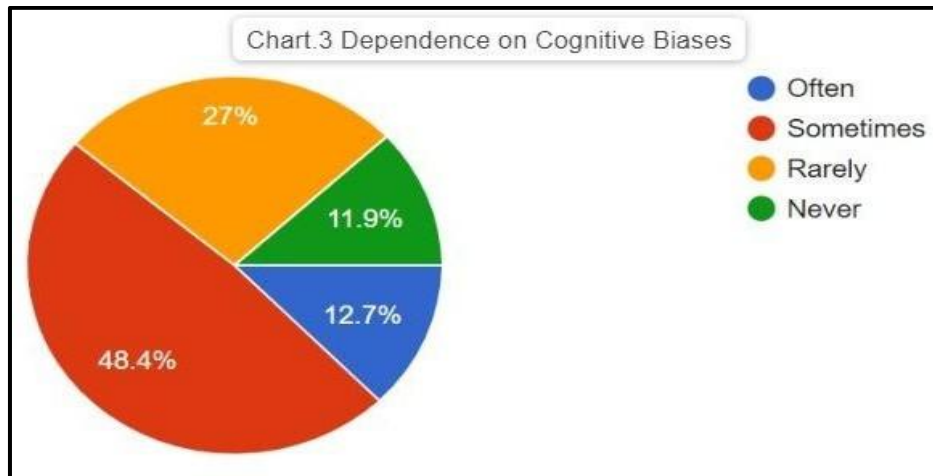


Chart 3: Investors Dependence on Cognitive Biases

48.4% of respondents (61) admit to depending on cognitive biases sometimes when making decisions. 27% (34) say they rely on cognitive biases rarely. 12.7% (16) admit to depending on cognitive biases often. 11.9% (15) claim to never rely on cognitive biases.

Almost half of the respondents (48.4%) acknowledge relying on cognitive biases at least occasionally. A significant proportion (27%) claim to rarely rely on cognitive biases, indicating some awareness of their potential influence. The fact that 12.7% admit to often relying on cognitive biases highlights the need for awareness and mitigation strategies.

▪ **Experienced Biases by Investors**

Table 4: Experienced Biases by Investors

Sr. No.	Cognitive Biases	No. of Respondents	% of Total Respondents
1	Confirmatory Bias	60	47.6%
2	Availability Heuristics	26	20.6%
3	Loss Aversion	47	37.3%
4	Anchoring Bias	15	11.9%
5	Hindsight Bias	33	26.2%
6	Gambler's Fallacy	1	0.8%
Total		126	100%

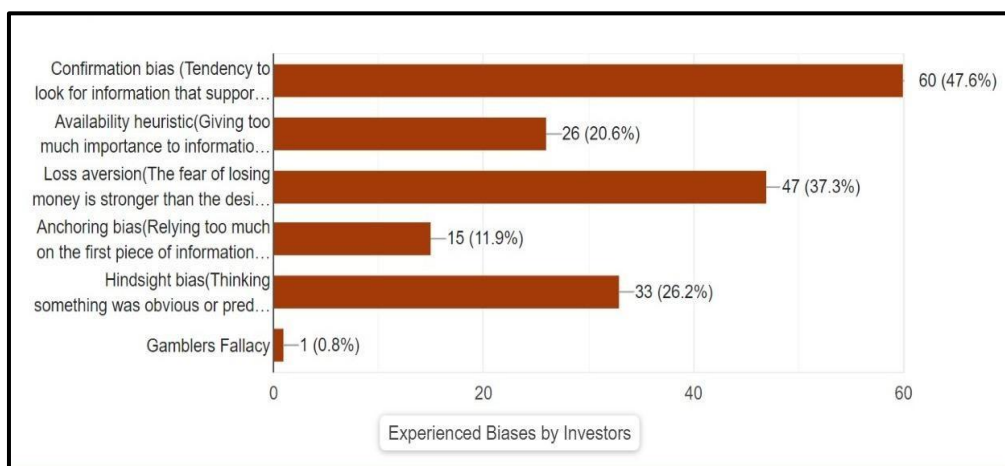


Chart 4: Experienced Biases by Investors

The survey shows that cognitive biases have a significant impact on how investors make decisions, with some biases being more common than others. The most frequently seen bias is confirmation bias, which affects 60% of respondents and accounts for 47.6% of total responses. This means many investors tend to look for information that supports what they already believe. Loss aversion is the second most common bias, experienced by 47% of respondents (37.3% of total responses), indicating that investors prefer to avoid losses rather than focus on potential gains. Hindsight bias was reported by 33 respondents, making up 26.2%, which leads people to think that past events were obvious once they happened. Availability heuristics affected 20.6% of respondents, as 26 people relied on easily remembered examples when making investment choices. Anchoring bias influenced 15 respondents (11.9%), showing how initial information can shape later decisions. Finally, gambler’s fallacy was seen in one respondent, making up 0.8% of the responses, which reveals a misunderstanding of probability. Overall, these findings highlight how common cognitive biases are in influencing investor behaviour.

▪ **Opinion of Investor Respondents**

Table 5: Opinion of Investors on Satisfaction

Sr. No.	Regret After Investment Decisions	No. of Respondents	% of total Respondents
1	Yes	77	61.1%
2	No	49	38.9%
Total		126	100%

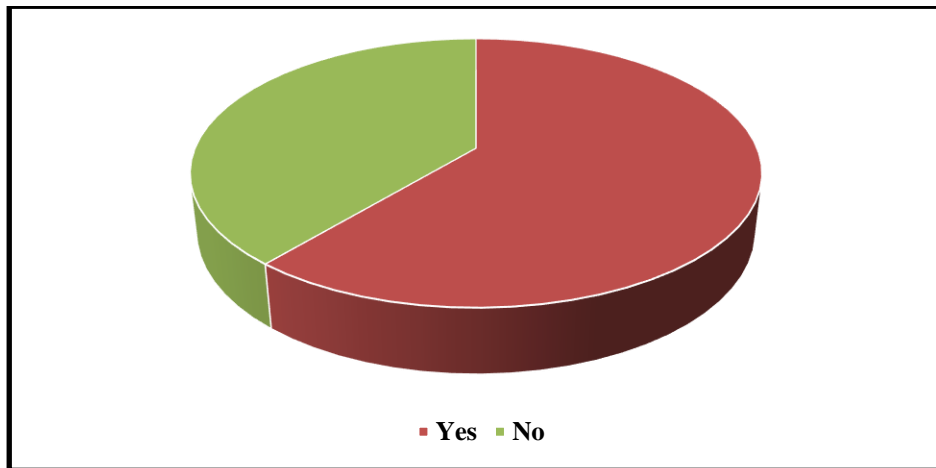


Chart 5: Investors Opinion on Satisfaction

Investors often have negative experiences and feel regret after making investment decisions influenced by cognitive biases. In fact, 77 of respondents admitted that they felt regret after their investment choices. This regret usually comes from relying on cognitive biases, which can cloud their judgement and lead to poor decisions. This feeling of regret can affect how they invest in the future, making them hesitant or overly cautious. However, by understanding and addressing these cognitive biases, investors can learn to make better decisions, which can help reduce their feelings of regret and enhance their overall investment experience.

Testing of Hypothesis

Researcher has tested the hypotheses with the help of Correlation Statistical Analysis. The result of the same as follows;

	Dependence on Cognitive Biases	No. of Respondents
Dependence on Cognitive Biases	1	
No. of Respondents	0.999999782	1

The result of the statistical analysis indicates that there is a strong relationship between investors investment decision and their high dependence on cognitive biases. Consequently, the researcher safely accepted the alternative hypothesis i.e., Share market investors’ investment decisions significantly influenced by cognitive bias.

Observations

- **Investors' Experience**
 - **New Investors:** A majority of respondents (54.8%) are relatively new to the stock market, with less than a year of experience.
 - **Moderate Experience:** A significant portion (32.5%) have 2 to 5 years of experience.
 - **Experienced Investors:** Only a small percentage (6.3% each) have 6 to 10 years or more than 11 years of experience.
- **Influence on Investment Decisions**
 - **Company Performance and Market Trends:** These are the primary factors influencing investment decisions, suggesting a rational and cautious approach.
 - **Risk Tolerance:** Many investors exhibit a moderate risk tolerance, indicating a balanced approach to investments.
 - **Specific Markets:** Investors have notably higher experience in stocks and mutual funds, suggesting these are the most popular and accessible options for new investors.
 - **Cognitive Biases**
 - **Prevalence:** Cognitive biases are prevalent among investors, significantly impacting their decision-making.
 - **Confirmation Bias:** This is the most common bias, affecting 60% of respondents, indicating a tendency to seek information that confirms existing beliefs.
 - **Loss Aversion:** The second most common bias, affecting 47% of respondents, showing a preference for avoiding losses over pursuing gains.
 - **Other Biases:** Hindsight bias, availability heuristics, anchoring bias, and gambler's fallacy also influence investors, though to a lesser extent.
- **Other**
 - **Growing Interest:** The survey highlights the growing interest in the stock market, with a significant number of new investors entering the market.
 - **Rational Approach:** Investors generally adopt a rational and cautious approach to investment decision-making, focusing on company performance and market trends.
 - **Risk Aversion:** The moderate risk tolerance among investors suggests a general aversion to risk.
 - **Cognitive Bias Influence:** Cognitive biases play a significant role in shaping investor behaviour, often leading to suboptimal decisions.

Suggestions

- Investors should start with understanding the basics of investing, like stocks, bonds, and mutual funds.
- Investors should figure out how comfortable they are with risk involved.
- It's important not to invest all your money in just one place. By putting your money into different types of investments like different types of stocks, you can reduce risk. If one investment doesn't do well, others might perform better and help balance things out.
- Investing is a marathon, not a sprint. Investors should focus on long-term goals rather than short-term gains.
- If investors are unsure about anything, they should consult a financial advisor who can give them personalized advice.
- Investors need to keep learning about investing and stay updated on market trends.
- Investors should not let fear or greed drive their decisions. Investors should aim for long term commitments.
- Investors should check their investments often to make sure favourable conditions.
- Investors should educate themselves about cognitive biases and how it can affect their decisions.
- If investors are facing complex investment choices, they should consult a financial advisor.

Research Limitations

- **Limited Sample Size:** The study surveyed only a small group of participants, which means the findings may not represent all investors. A larger sample size could provide a more accurate picture of how cognitive biases affect investment decisions.
- **Self-Reported Data:** Participants shared their own thoughts and experiences, but this information might not be completely reliable. People may forget details or may not accurately describe their behaviours, leading to inaccuracies in the data.
- **Measuring Cognitive Biases:** The survey asked investors to identify their own cognitive biases, but this method might not capture the full picture. Other approaches, like observational studies or psychological assessments, could provide a clearer understanding of these biases.
- **Correlation Vs. Causation:** The survey found a link between cognitive biases and investment choices, but it didn't establish that one directly causes the other. Other factors could be influencing investors' decisions, meaning we can't definitively say that cognitive biases lead to specific outcomes.
- **Changing Times:** The survey was conducted at a specific moment in time, and the results may not hold true today. Changes in market conditions, the economy, or technology can alter how investors think and behave, so findings may quickly become outdated.
- **Conceptual Limits:** The focus of the survey was solely on cognitive biases, but there are many other elements that can influence investment decisions. Factors like financial knowledge, risk tolerance, personal goals, and emotional states also play a significant role, and neglecting these could limit the understanding of investors' behaviour.

Scope for Further Research

- **Long-Term Studies:** Conducting research over an extended period can help us see how cognitive biases change as market conditions evolve. For example, during a market boom, investors might feel more confident, leading to different biases compared to a market downturn when they might be more cautious. By studying these changes over time, we can gain a better understanding of how biases affect decision-making in various economic situations.
- **Impact of Education:** Exploring how financial education influences investor behaviour is important. If investors learn more about finance and investing, they may become more aware of their own biases. Understanding concepts like risk and diversification could help them make better decisions. Researching this could reveal how effective education programs are in reducing biases and improving overall investment choices.
- **Combining Fields:** Integrating insights from psychology, economics, and finance can provide a richer understanding of investor behaviour. Each field offers unique perspectives: psychology examines how emotions influence decisions, economics looks at market dynamics, and finance focuses on investment strategies. By combining these disciplines, researchers can develop a more comprehensive view of why investors act the way they do and how to help them make better decisions.
- **Interacting Biases:** Studying how different cognitive biases affect each other can reveal more about the decision-making process. For instance, if an investor is overly optimistic (overconfidence), they might ignore warning signs (confirmation bias). Understanding these interactions can help researchers identify patterns in behaviour and develop strategies to address multiple biases at once.
- **Behavioural Solutions:** Researching various strategies to reduce cognitive biases can help improve decision-making for investors. This could include workshops that teach awareness of biases, reminders to help investors stick to their plans, or tools that simplify decision-making. By evaluating the effectiveness of these solutions, researchers can find practical ways to help investors overcome biases and make more rational investment choices.

Conclusion

The survey highlights the significant impact of cognitive biases on investment decisions. It reveals that common biases such as confirmation bias, loss aversion, and overconfidence can lead to distorted perceptions of risk and reward, irrational decision-making, and ultimately, suboptimal investment outcomes. Additionally, the survey underscores the negative consequences of these biases,

including feelings of regret and diminished investor confidence. Rational decision-makers, who are less influenced by cognitive biases, are generally more satisfied with their investment outcomes. By understanding and addressing these cognitive biases, investors can make more informed choices and improve their overall investment experience.

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