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11 Behavioral Finance & Decision Making: Cognitive and Emotional Biases in Saving and Investing

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Abstract

Investment decision-making in financial markets has become increasingly complex, now-a-days. This task has been made more complicated by the presence of large number of savings and investment institutions offering various financial products with heavy terms and conditions. Governments encourage saving and investment for the sake of economic growth, but barriers like limited access to the financial markets, asymmetries in information availability, and the complexities of financial products and available choices; weaken the tendency of individuals to save. These barriers and complexities lead people to rely on shortcuts which cause the occurrence of biases and create hindrances in financial decisions. Financial decision making is very important in the financial and personal wealth management of an individual. This includes the process of allocation of funds in savings and investments. People need to decide how much to spend and how much to save. At this point, the knowledge of Behavioral finance plays an important role in taking financial decisions. Behavioral Finance is a mix of psychology, sociology and finance, that tries to understand why investors often make choices that are not rational. Thus, the knowledge of Behavioral Finance explains how people (especially investors) tend to make mistakes in their financial decision-making based on their feelings. The present chapter discusses the linkage between Behavioral Finance and Decision Making. It also elaborates the various types of Cognitive and Emotional Biases in Saving and Investing.

Keywords: Behavioral Finance, Decision Making, Behavioral Biases, Cognitive Biases, Emotional Biases.

Introduction

Investing funds in the financial market has become a complex task. Presence of large number of savings and investment institutions offering various financial products with heavy terms and conditions, has further intricated this task. People often assume that saving and investment are similar; however, these are fundamentally different concepts. As per Stanley (n.d.), saving is the process of putting funds in a safe place for an emergency or to meet a short-term goal, whereas investing involves purchasing assets and securities that provide higher returns than savings and carry risk. Table-1 reflects a clear distinction between Savings and Investments. Savings and Investment, both are crucial for individuals' personal and financial well-being. That's why people consider a balanced distribution of funds in Saving and Investment for effective long-term wealth and financial stability (Pawar & Roy, 2025). Considering the economic growth, governments promote saving and investment; however, barriers like less access to the financial market, asymmetries in information availability and complexity in financial choices and products, limit the individuals' propensity to save (Lewis & Messy, 2012). Moreover, the existence of behavioral and cultural factors also poses various challenges in their saving and investment activities. These barriers and complexities make people rely on shortcuts, which cause the occurrence of biases and creates hindrances in financial decisions.

Table 1: Savings v/s Investments

Feature	**Savings**	**Investments**
Purpose	Short-term goals, emergencies	Long-term wealth creation
Risk	Low	Medium to high
Returns	Fixed, predictable	Variable, potentially high
Liquidity	High	Medium to low
Time horizon	Short-term (0 to 3 years)	Long-term (5+ years)
Tools	Savings accounts, FDs	Stocks, mutual funds, bonds
Ideal for	Risk-averse individuals	Risk-tolerant individuals

Source: Yes Bank (n.d.)

Financial Decision Making

Financial decision making is quite important in every family's financial and personal wealth management (Sahi et al., 2013).

This involves the process of allocation of funds in savings and investments. People need to decide how much to spend or save. When expenses are high, they might be borrowing the funds; when savings are on the higher side, they need to decide about various investment avenues. It is a critical skill that shapes an individual's financial future and overall well-being.

The financial decision-making process includes many activities, such as financial planning, investing, borrowing, and managing risk. This process is often influenced by various factors, including economic conditions, regulations, personal preferences, and attitudes.

Making good financial decisions needs a strong grasp of financial concepts and principles. It also requires the ability to make informed choices based on relevant information and analysis.

Behavioral Finance

Behavioral finance is a combination of psychology, sociology, and finance to understand why investors often make decisions which are away from rationality. It examines how cognitive biases, emotions, and social influences affect investment choices, leading to market anomalies, mispricing, and inefficiencies. Traditional finance works on the presumption of rationality in investment decisions; however, behavioral finance recognizes that investors do not always react in a rational manner and being influenced by their own biases, they may act against their own benefits.

Behavioral Finance studies how people, especially investors, often make mistakes in their financial decisions because of their emotions. Understanding Behavioral Finance can help investors become better money managers. They can learn to spot when their behavior might not be in their best interest.

Studying Behavioral Finance is important for recognizing common and predictable mistakes made by investors and finding ways to benefit from them. Major behavioral concerns consist of Mental Accounting, Anchoring, Overconfidence, Heuristics, Loss Aversion, the Sunk Cost Fallacy, the Endowment Effect, and many others.

Behavioral Biases

Behavioral biases can affect the behavior and decision making of financial market participants. These are systematic, recurring deviations from rationality in decision-making. They occur when psychological factors—such as emotions, faulty reasoning, or mental shortcuts—drive investors to make suboptimal choices. Rather than acting like purely objective or logical actors, humans rely on these biases to simplify complex situations.

Behavioral biases are errors in decision-making that lead to faulty choices. There are several biases existing in the academic world of behavioral finance, such as cognitive, emotional, psychological and investment biases. Less awareness of these biases among people may reduce their ability to deal with them. Further, the demographic attributes of individuals lead to behavioral biases, which subsequently lead to irrational decision-making, as shown in Figure 1 (Badola et al., 2024).

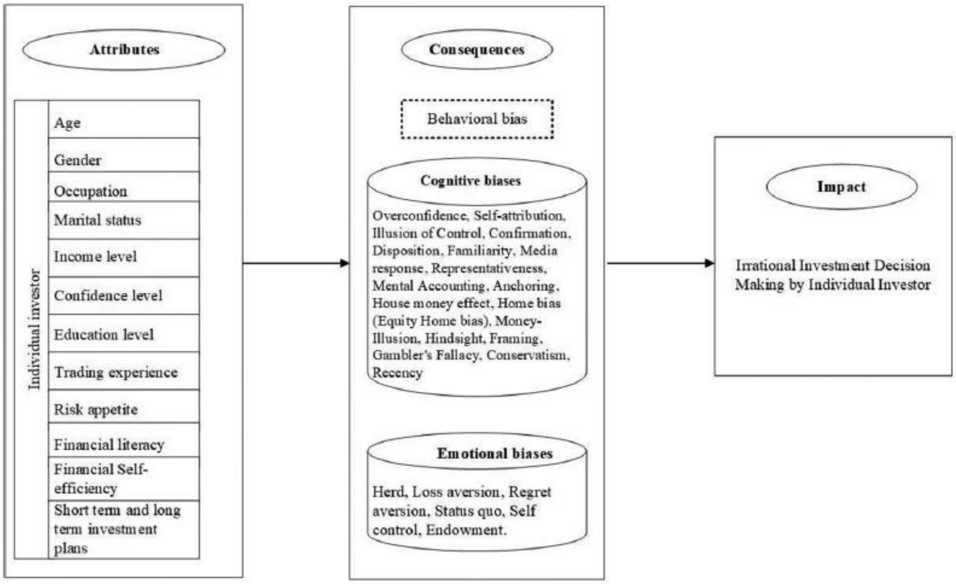

Figure 1

Source: Badola et al. (2024)

The study of these biases is significant as it influences people's financial decisions, as indicated by several research studies, such as Bouteska & Regaieg (2020), Kumar & Seena (2025), Sapkota (2023), and Sumantri et al. (2024). Understanding of these biases is highly imperative for investors to make informed choices, and it also helps to make objective decisions rather than being inclined towards subjective thinking. Besides, the mitigation of these biases is one of the necessities to reduce their adverse effects.

Types of Behavioral Biases

These biases generally fall into two categories: Cognitive Biases (errors in processing information or faulty reasoning) and Emotional Biases (decisions based on feelings, impulses, or intuition rather than facts).

- **Cognitive Biases**

When there is an error in information processing, it indicates cognitive bias. (Kumar & Chaurasia, 2024). Cognitive biases arise due to imperfection in information interpretation. People often make judgments or decisions on the basis of 'Heuristics', the process of simplifying the processing of information. These systematic and predictable errors result in cognitive biases. Although there is no clear evidence for any defined number of cognitive biases, there have been several types of cognitive

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biases, as mentioned in figure 1. Many of these biases arise due to limitations in individuals' rationality, explained by the heuristic theory, which states that the human brain uses shortcuts in processing information (Runtuwene & Sibilang, 2024).

Let us understand some of these biases more precisely with special focus on various types of Cognitive biases;

- ***Overconfidence bias***: This is a type of cognitive bias in which people give more weightage to their own knowledge and skills, which impacts decision-making. This overconfidence leads investors to do excessive trading, miscalculate market risks, and overemphasize on their skills in decision-making (Sharma & Prajapati, 2024).This bias can have a negative impact on returns, causing over-trading, under-diversification and neglecting risks, leading to higher costs and potential losses. Overconfidence is, therefore, one of the most common problems found in financial decision-making
- ***Self-attribution bias*****:** Self-attribution bias is the tendency for people to credit themselves and their personal skills for success, whereas blaming other factors for losses and failure (Hoffmann & Post, 2014). Individuals often credit their own failures to external circumstances while blaming others' failures on their character. Understanding attribution bias can improve decision-making by fostering a more accurate perception of events and behaviors. The bias can impact financial decision-making, affecting investment perceptions and economic judgments.
- ***Illusion of control*****:** This bias arises when people overestimate their ability to control results, and the illusion of control impacts decisions irrespective of individuals' age, gender and other factors (Kumar & Seena, 2025).Such bias can lead to people behaving in such ways as overtrading, bad decision in market timing or holding concentrated portfolios which will lead to poor investment returns. One can combat the illusion of control bias by focusing on evidence-based approaches like diversification, having a long-term perspective and avoiding micromanagement. By recognizing illusion of control bias, people can make sound principles-based investment decisions more rationally and efficiently.
- ***Confirmation bias***: Confirmation bias tends to cause individuals to acquire any new information in a way that is aligned with previous and existing beliefs, and this bias is present in several domains, such as psychology, economics, and even seen in scientific practices (Allahverdyan & Galstyan, 2014).This is kind of a *The Echo Chamber Effect* where people tend to seek information which confirms the already

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existing beliefs and disregard the contradictory evidences. This can lead to overconfidence, poor diversification, holding on to losers. To prevent it, people need to keep a decision journal, record disconfirming evidence, and pre-commit to exit rules.

- ***Disposition effect*****:** This is one of the most documented biases, which states that individuals tend to "sell winners too early and hold on to losers too long" (Tang et al., 2019).The disposition effect in behavioral finance is a cognitive tendency where traders in the stock market sell profitable securities and hold on to loss-incurring assets. They sell the 'winning' assets, eager to make profits while keeping the 'losing' assets hoping that they would increase in value and make up for the losses incurred. It is a psychological bias which reduces the investors' profits by exposing them to losses. Investors need to change how they look at profits and losses by cultivating logical thinking abilities.
- ***Representativeness bias*****:** Representativeness bias refers to the extent to which an event is similar to a parent population, or it represents the population (Sumantri et al., 2024).This bias happens when the similarity of objects or events influences people's thoughts about the likelihood of an outcome. People often make the mistake of thinking that two similar things or events are more closely correlated than they really are. This representativeness heuristic is a typical error of processing information in the theory of behavioral finance.
- ***Mental accounting***: Mental accounting indicates that people categorise their money into different accounts based on purpose (Santi et al., 2019). It is an idea where individuals assign varying values to currency according to personal criteria, frequently influencing logical decision-making. Individuals frequently perceive windfalls, such as tax refunds, as additional funds and handle them differently, which may be financially detrimental. Mental accounting may result in irrational financial choices, like keeping savings in low-interest accounts while holding high-interest debt, negatively affecting their overall financial plan.
- ***Anchoring bias***: This bias refers to the individuals' tendency where they rely heavily on the first or initial piece of anchors while making decisions. It is a very important concept in behavioral economics(Zhao, 2025).It isthe tendency of *sticking to the First Number* i.e. Relying too heavily on the first piece of information. This creates difficulty in re-evaluating investments objectively. In order to avoid this, individuals must reassess their decisions which should be based on fundamentals, not past prices.

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- ***Hindsight bias**:* Hindsight bias states that individuals feel that"an event is more predictable after it becomes known than it was before it became known" (Roese & Vohs, 2012).People, having this bias, often feel that*I Knew It All Along*. It is Believing outcomes were predictable after the fact.This bias creates false confidence in the individuals regarding their forecasting abilities. In order to avoid this, investors should try to use a decision log to compare predictions vs actual outcomes.
- ***Recency bias***: The recency bias indicates that people give more weight to recent events and information in judgments and when making choices (Kotomin& Varma, 2025).People having this bias have the tendency to give disproportionate weight to the latest market events, price moves, headlines, or company updates when forming a judgement. This bias can lead to investors making decisions based on recent performance rather than a broader historical context. It can cause investors to over-estimate the durability of recent gains and under-estimate the permanence of recent losses.
- ***Relative risk bias**: Relative risk bias* refers to a greater tendency to select a specific treatment when the relative risk is highlighted compared to when the same information is conveyed in terms of absolute risk (Forrow et al., 1992).
- ***Susceptibility to framing***: *Susceptibility to framing* refers to how people's reactions to a single choice vary based on whether it is shown as a loss or as a gain(Tversky and Kahneman, 1981).The framing effect influences decisions by presenting information in a biased manner where investors often choose options highlighted more positively, even if the potential outcome is not different. Framing can take various forms like auditory, visual, body language, and value propositions. Strong focus on analyzing concrete data and staying aware of emotional responses may be helpful in reducing this bias. Also, maintaining a long-term perspective and careful analysis of*get-rich-quick schemes* can help avoid financial drawbacks from framing effects.

- **Emotional Biases**

Emotional biases occur due to emotional factors like regret and arrogance (Kumar & Chaurasia, 2024).These biases are often difficult to rectify, as these are based on emotions. It is the reflection of people's feelings about doing something that affects their behavior which subsequently influences the decision-making of the investors (Sapkota, 2023). There are various biases included in this category, like herding, loss aversion, regret aversion, status quo, self-control, and endowment effect, as per Figure 1.

Let us dive deeper into various types of Emotional Biases to have a better understanding;

- ***Herding bias***: This bias occurs when people follow others even though they might be wrong because they feel their actions are safe (Runtuwene & Sibilang, 2024). In behavioral finance, herd mentality bias signifies the inclination of investors to mimic and adhere to the actions of other investors. Their actions are primarily driven by feelings and instincts, rather than by personal critical thinking.
- ***Loss aversion***: As per this bias, people value profit and loss differently, and individuals make decisions based on gain rather than loss, as they tend to avoid risk aligned with loss (Bouteska & Regaieg, 2020). This happens when investors prioritize the fear of losses over the satisfaction from market profits. In other terms, they are significantly more inclined to prioritize preventing losses over achieving investment profits. Consequently, certain investors may seek a larger return to offset their losses. If the substantial return is not possible, they may seek to evade losses completely, even when the investment's risk is reasonable from a logical perspective. Investors believe that they seek to achieve profits swiftly. Nonetheless, when an investment is losing value, they will retain it because they hope to recover to break even or their original cost.
- ***Regret aversion***: This bias explains the emotion of regret that individuals experience after making a decision that turns out to be bad or inferior (Gazel, 2015). Thus, people tend to avoid making decisions under uncertainty.
- ***Status quo***: *Status quo bias* describes the situation where individuals prefer those options that they chose earlier, even though the other options are better (Kempf & Ruenzi, 2006).Here, individuals disproportionately stick with the current state or default option, even when alternatives are objectively better. People are unwilling to change situation.
- ***Endowment effect***: This phenomenon impacts an individual's decision-making process in several aspects. It states that people value more when they own an asset compared to when they do not own such an asset (Guo, 2024).Investors with this bias believe that the asset they hold is worth more than those they do not hold. This might cause them to retain securities even when more favorable options are available elsewhere.
- ***Familiarity bias****: The familiarity bias* occurs when investors prefer to invest in familiar entities, like local companies or investments they

already recognize. Consequently, investors lack diversification among various sectors and investment types, potentially increasing risk. Investors often prefer investments they are familiar with or have prior experience in.

Implications of Behavioral Biases for Financial Markets

Behavioral Biases in finance represent consistent trends of deviation from logical decision-making. They lead investors to miscalculate probabilities, mis-interpret risks, and decisions based on emotions rather than facts and data. Behavioral biases contribute to market inefficiencies and can lead to the following repercussions in financial decision making:

- Dramatically rising prices to unsustainable levels through excessive speculation and unrealistic expectations of future returns, due to collective irrational behavior
- Investment decisions by individual investors may not reach the optimum level resulting in misallocation of capital, poor diversification and excessive trading.
- Deviations from expected returns predicted by traditional models like Modern Portfolio Theory or the Efficient Market Hypothesis.

Suggestions to Mitigate the Ill-Effects of Biases

The study of Minz & Chaudhary (2026) suggests several strategies to mitigate the behavioral biases, including following the financial plans, techniques for diversification of portfolio, and proper professional guidance for decision-making. Also, the investors can reduce the impact of biases by:

- focusing on decision-making processes rather than outcomes,
- encouraging thoughtful choices rather than being emotional
- adhering to rules for buying, selling, and portfolio optimisation
- maintaining a decision journal to track reasoning and counteract confirmation bias.
- diversifying information sources to avoid echo chambers and avoiding overreliance on initial anchors.

Final Thoughts

Behavioral Biases are an inherent aspect of humanity and cannot be entirely eradicated. However, acknowledging them and establishing guidelines, structures, and protections can reduce their influence. Understanding behavioral biases and handling them in a prudential manner, allows investors and financial professionals to anticipate irrational market behavior, improve decision-making, and potentially exploit systematic patterns for better risk-adjusted returns.

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References

1. Allahverdyan, A. E., & Galstyan, A. (2014). Opinion dynamics with confirmation bias. *PloS one*, *9*(7), e99557.
2. Badola, S., Sahu, A. K., & Adlakha, A. (2024). A systematic review on behavioral biases affecting individual investment decisions. *Qualitative Research in Financial Markets*, *16*(3), 448-476.
3. Bouteska, A., &Regaieg, B. (2020). Loss aversion, overconfidence of investors and their impact on market performance evidence from the US stock markets. *Journal of Economics, Finance and Administrative Science*, *25*(50), 451-478.
4. Da Silva, S., Gupta, R., &Monzani, D. (2023). Editorial: Highlights in psychology: cognitive bias. *Frontiers in psychology*, *14*, 1242809. https://doi.org/10.3389/fpsyg.2023.1242809
5. Forrow, L., Taylor, W. C., and Arnold, R. M. (1992). Absolutely relative: how research results are summarized can affect treatment decisions. Am. J. Med. 92, 121–124. doi: 10.1016/0002-9343(92)90100-P
6. Gazel, S. (2015). The regret aversion as an investor bias. *International Journal of Business and Management Studies*, *4*(2), 419-424.
7. Guo, Y. (2024)**.** Unveiling the Endowment Effect: Understanding Its Significance and Applications. *Advances in Economics Management and Political Sciences. 60*(1).199-205. DOI:10.54254/2754-1169/60/20231219
8. Hoffmann, A. O., & Post, T. (2014). Self-attribution bias in consumer financial decision-making: How investment returns affect individuals' belief in skill. *Journal of Behavioral and Experimental Economics*, *52*, 23-28.
9. Kempf, A., & Ruenzi, S. (2006). Status Quo Bias and the Number of Alternatives: An Empirical Illustration from the Mutual Fund Industry. *Journal of Behavioral Finance*, *7*(4), 204–213.

   https://doi.org/10.1207/s15427579jpfm0704_3
10. Kharare, P. P., & Lalwani, N. P. (2025) A Study of Behavioural Biases and Investment Decisions: An Empirical Analysis.*International Journal for Multidisciplinary Research (IJFMR,)* E-ISSN: 2582-2160, 7(4), 1-5. www.ijfmr.com
11. Kotomin, V., & Varma, A. (2025). Debiasing Recency: Evidence from Individual Investor Stock Sales. *Journal of Behavioral Finance*, 1-17.
12. Kumar, G. R., & Seena, K. R. (2025). Impact of Cognitive Errors and Emotional Biases on Financial Decision Making of Individuals'. *Lex Localis: Journal of Local Self-Government*, *23*.

13. Kumar, S., & Chaurasia, A. (2024). The relationship between emotional biases and investment decisions: A meta-analysis. *IIMT Journal of Management*, *1*(2), 171-185.
14. Lewis, S. and F. Messy (2012), "Financial Education, Savings and Investments: An Overview", OECD Working Papers on Finance, Insurance and Private Pensions, No. 22, OECD Publishing. http://dx.doi.org/10.1787/5k94gxrw760v-en
15. Lokhande, M. A. (2015). A study of investment awareness and patterns of savings and investments by rural investors. *Indian journal of finance*, 22-31.
16. Minz, N., & Chaudhary, A. K. (2026). An Integrative Perspective on Behavioral Biases, Investors' Behavior and Investment Decision. *Asian Journal of Economics, Business and Accounting*, *26*(2), 313–321. https://doi.org/10.9734/ajeba/2026/v26i22179
17. Pawar, P. S., & Roy, S. K. (2025). Saving vs Investing: A Comparative Study of Financial Habits. *International Journal of Latest Technology in Engineering Management & Applied Science*, *14*(11), 1269-1282. https://doi.org/10.51583/IJLTEMAS.2025.1411000119
18. Roese, N. J., & Vohs, K. D. (2012). Hindsight Bias. *Perspectives on psychological science : a journal of the Association for Psychological Science*, *7*(5), 411–426. https://doi.org/10.1177/1745691612454303
19. Runtuwene, M. E., &Sibilang, N. P. (2024). The Influence of Herding Behavior and Confirmation Bias on Investment Decision in Generation Z with Gender as Moderating Variable. *Klabat Accounting Review*, *5*(2), 111-122.
20. Sahi, S. K., Arora, A. P., & Dhameja, N. (2013). An exploratory inquiry into the psychological biases in financial investment behavior. Journal of Behavioral Finance, 14(2), 94–103.
21. Santi, F., Sahara, N. V., & Kamaludin, K. (2019). The Effect Of Mental Accounting On Student's Investment Decisions: A Study At Investment Gallery (Gi) Feb University Of Bengkulu And Syariah Investment Gallery (Gis) Feb Iain Bengkulu. *JurnalIlmiah Ekonomi Bisnis*, *24*(2), 137-152.
22. Sapkota, M. P. (2023). Emotional biases and equity investment decision of individual investors. *Journal of Business and Management Review*, *4*(1), 036-049.
23. Sharma, A., & Prajapati. B. (2024). A Study of Overconfidence Bias on Investment Decision with Respect to Behavioral Finance. *European Economic Letters (EEL)*, *14*(4), 176–183. Retrieved from https://eelet.org.uk/index.php/journal/article/view/2107

24. Stanley, M. (n.d.). What's the Difference Between Saving and Investing?. Retrieved from: https://www.morganstanley.com/articles/saving-investing

25. Sumantri, M. B. A., Susanti, N., &Yanida, P. (2024). Effect of Representativeness Bias, Availability Bias and Anchoring Bias on Investment Decisions. *Economics and Business Quarterly Reviews*, 7(2), 199-206.

26. Tang, S., Huang, S., Zhu, J., Huang, R., Tang, Z., & Hu, J. (2019). Financial self-efficacy and disposition effect in investors: The mediating role of versatile cognitive style. *Frontiers in Psychology*, *9*, 2705.

27. The Behavioral Biases of Individuals | CFA Institute https://share.google/fx7AHbkroEduk1ijV

28. Tversky, A., and Kahneman, D. (1981). The framing of decisions and the psychology of choice. Science 211, 453–458. doi: 10.1126/science.7455683

29. Yes Bank. (n.d.). Understanding the Differences Between Savings and Investments. Retrieved from: https://www.yes.bank.in/blogs/savings-account/differences-between-savings-and-investments

30. Zhao, Y. (2025). Anchoring Bias: The Power of First Impression on Economic Decision-making. *Advances in Economics Management and Political Sciences*. *187*(1). DOI: 10.54254/2754-1169/2025.BL23774.

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