

Analysis of Behavioural Finance In Reference To Cognitive Illusion

Ghanshyam Mishra

* Department of Commerce and Management, Maharaja Agrasen Himalayan Garhwal University, Pauri Grahwal, Uttarakhand

*Corresponding E. mail: drghanshyammishra@gmail.com

Abstract

The primary objective of this study was to investigate the roles of heuristic techniques and cognitive biases in investment decision-making and propose directions for further research. The study employed a literature review methodology to understand the heuristics and biases central to behavioural finance and their impact on investment decisions. The paper provides a conceptual overview of how heuristic methods and cognitive biases influence investment decision-making, highlighting that investors often minimize losses and seek to maximize profits using various heuristics, which can lead to systematic decision-making errors. Practical implications of the study emphasize the importance of financial literacy for investors, as it serves as a prerequisite for making informed investment decisions in the capital market and reduces reliance on potentially misleading heuristic techniques. Notably, this study is the first to focus on the combined effects of heuristics and cognitive biases in investment decision-making, offering valuable insights for future research in behavioural finance.

Keywords: Cognitive illusion, Heuristics, literacy, Investigate, Behavioural Finance etc.

Introduction

Behavioural finance examines how psychology influences the behavior of investors and financial analysts, ultimately impacting the markets. It underscores the fact that investors are susceptible to biases, have limitations in their self-discipline, and do not always act rationally. Decision-making is never isolated; it cannot rely solely on sophisticated models or individual resources without considering the broader context. Cognitive psychology, guided by your manager, helps analyze the multifaceted factors at play in decision-making scenarios. Beyond addressing specific problems, decision-making encompasses the entire environment.

In today's competitive corporate landscape, individuals must stay abreast of developments across various sectors. A deeper understanding of human nature from a global perspective, coupled with honed skills and the ability to maximize investments, is essential. Investors should cultivate positive vision, foresight, persistence, and determination. Each investor is unique, influenced by demographics such as socioeconomic status, education level, age, race, and gender.

Investment decisions pose significant challenges for investors. Optimal investment selection involves considering financial objectives, risk tolerance, and other constraints while constructing an investment portfolio. Additionally, forecasting results through mean-variance optimization is crucial. Behavioral finance now plays a pivotal role in decision-making due to its impact on investor performance. By acknowledging inherent biases and judgment errors, investors can enhance their decision-making. Understanding behavioral finance empowers investors to make better choices and avoid repeating costly mistakes.

Importance of Behavioral Finance

Behavioural finance is a field that explores the relationship between psychology and finance. It investigates how cognitive biases influence the behaviour of market participants, the functioning of capital markets, and the valuation of various assets. This area has gained prominence as the fastest-growing topic in academic financial research.

Around the mid-1980s, behavioural finance began to rapidly evolve, and it now plays a significant

role in both corporate finance and investment decisions. New theoretical insights, market dynamics, and legislative changes have led to the emergence of several sub-areas within the field of finance. (Venezia, 2018)

According to Pompian (2011), the classical era of economics is believed to have begun around the mid-eighteenth century. The term “economic man” or “homo economics” was first introduced by John Stuart Mill in 1844. It described an individual who made rational decisions based on all available information, driven by self-interest and a desire for wealth. This economic actor aimed to maximize their well-being while considering the constraints they faced. Mill’s three fundamental assumptions—perfect information, perfect self-interest, and perfect reason—formed the cornerstone of the conventional financial framework. It sought to maximize individuals’ marginal utility while accounting for situational limitations and finding equilibrium solutions.

By analysing the financial behaviour of amateur investors, we gain insights into the significance and meaning of financial activities. Critics of the Austrian School of Economics, including Torstein Veblen, January Kaynard, and Simon, argue that Homo Economics exhibits an excessive reliance on macroeconomics and economic forecasting in decision-making. Individuals adhering to this paradigm tend to homogeneously prioritize maximizing their marginal benefit.

Prominent scholar Statman (1999) describes conventional financial knowledge as “a body of knowledge built on pillars.” These pillars include Merton Miller’s arbitrage principles, portfolio structure principles, and the theories of stock pricing and option pricing by Harry Markowitz, John Lintner, William Sharpe, and Andrew Sharp. Their work, along with contributions from Fischer, Myron Scholes, and Andrew Merton, remains influential due to its simplicity and foundational concepts.

Investing’s primary purpose is wealth creation. Historically, investments were based on returns, forecasts, and market timing. However, this approach yielded ordinary results, leaving investors with a sense of predictability and peace of mind. Discrepancies between expected and actual returns prompted investigations into the decision-making process. Researchers discovered that fundamental errors led to irrational investment decisions. Identifying these mistakes and finding ways to avoid them improved investment quality and results.

Understanding psychology’s impact on investment decisions became crucial.

Behavioural finance, which studies the psychological processes behind these mistakes, has gained popularity worldwide. Researchers like Amos Tversky and Daniel Kahneman explored choice frames and heuristic-driven biases, while Paul Slovic examined misconceptions about danger. Their findings challenged traditional theories of rational, self-interested decision-making in finance and economics. Behavioral finance draws from studies on human cognition, social recognition, and emotional tolerance to recognize and comprehend economic decisions. It isn’t a recent topic but continues to shape financial practices.

Behavioural finance, a subfield of behavioural economics, proposes that psychological influences and biases significantly affect the financial behaviours of investors and financial practitioners. Unlike traditional finance theory, which assumes perfect rationality, behavioural finance acknowledges that people often deviate from purely logical decision-making.

Key points about behavioural finance include:

1. **Psychological Biases:** Investors exhibit various cognitive biases that influence their choices. Some common biases include loss aversion, consensus bias, and familiarity tendencies.
2. **Market Anomalies:** Behavioural finance helps explain market anomalies, such as extreme stock price movements, which cannot be fully accounted for by efficient market theory.
3. **Health Impact:** An investor’s overall health, both mental and physical, can impact their financial decision-making. As health changes, so does rationality toward real-world problems, including financial ones.
4. **No Unified Theory:** It’s important to note that there isn’t a single comprehensive theory of behavioural finance. Instead, researchers explore various aspects of human behavior in financial contexts.

In summary, behavioural finance provides valuable insights into why people make certain financial choices and how these choices ripple through markets. Understanding these psychological factors can enhance decision-making for investors and practitioners alike.

Role of Cognitive Illusion in Behavioural Finance

Cognitive illusions refer to systematic patterns of thinking or biases that can lead individuals to make irrational judgments or decisions. These illusions often deviate from the rationality assumed by conventional

financial theory. Here are a few key points related to cognitive illusions and their influence on investment decisions:

1. Heuristic Bias and Behavioral Biases:

- Heuristic bias refers to the tendency to rely on mental shortcuts (heuristics) rather than thoroughly analysing information. These shortcuts can lead to biases in decision-making.
- Behavioural biases, also known as illogical conduct, emerge from heuristic biases. They affect how investors perceive and act upon financial information¹.
- For instance, the framing effect occurs when people react differently to the same information depending on how it is presented (e.g., as a gain or a loss).

2. Cognitive Illusions and Investment Choices:

- Cognitive illusions, such as overconfidence, herding behavior, and loss aversion, play a significant role in investment choices.
- Overconfidence leads investors to overestimate their abilities, which can result in suboptimal decisions.
- Herding behavior occurs when investors follow the crowd, even if it contradicts rational analysis.
- Loss aversion refers to the tendency to feel losses more acutely than gains, leading to risk-averse behavior.

3. Financial Literacy and Decision-Making:

- Financial literacy is crucial for making intelligent investment choices. It involves understanding financial concepts, risks, and investment options.
- Investors with higher financial literacy levels are better equipped to navigate cognitive illusions and make informed decisions.
- Researchers have found a statistically significant link between heuristic bias and the development of behavioral bias in decision-making¹.

4. Efficient Market Hypothesis (EMH):

- The EMH posits that stock prices reflect all available information, making it impossible to consistently outperform the market.
- However, cognitive illusions challenge this hypothesis by highlighting how investors' irrational behaviour affects stock prices.

Role of Heuristic Techniques in Investment Decision-Making and How They Impact Investors' Choices

Heuristic techniques are mental shortcuts or rules of thumb that individuals use to simplify complex

decision-making processes. These techniques help investors navigate uncertainty, reduce cognitive load, and arrive at quicker decisions. Common heuristic techniques include availability, representativeness, anchoring and overconfidence.

1. Impact on Investment Decisions:

- Overconfidence: Investors tend to overestimate their abilities and knowledge. This can lead to excessive risk-taking or unwarranted confidence in specific investments.
- Representativeness: Investors often rely on past experiences or patterns to predict future outcomes. However, this can lead to biases, such as assuming that recent market trends will continue indefinitely.
- Availability: Investors give more weight to information that is readily available or easily recalled. This can lead to overlooking less accessible but relevant data.
- Anchoring: Investors anchor their decisions to a reference point (e.g., purchase price or historical high). This can distort judgment and prevent objective analysis.

2. Empirical Evidence:

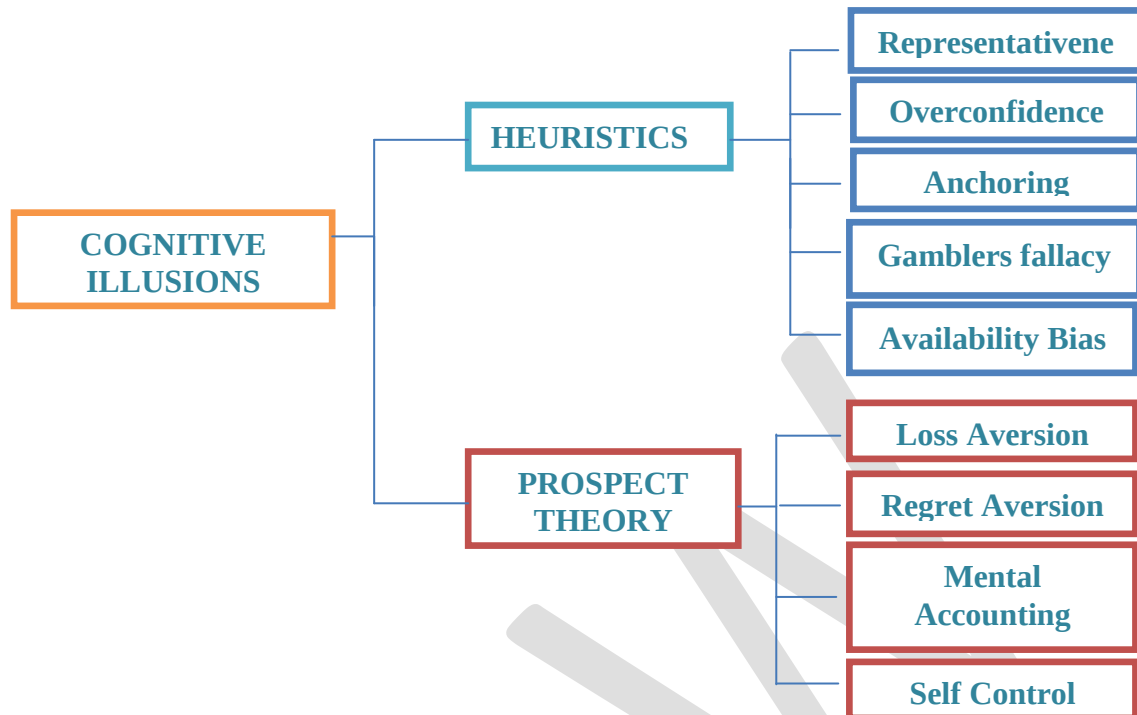
- Shah *et al.*, (2018) found that heuristic techniques (including overconfidence, representativeness, availability, and anchoring) negatively affect investment decisions among individual investors in the Pakistan stock market.
- Ul Abidin *et al.*, (2017) identified availability and representativeness as strong predictors of investment decisions among Pakistani investors.
- Saeed (2019) highlighted the role of mental accounting and price fixation in investor decision-making in Islamabad.

3. Challenges and Rationality:

- Despite traditional financial theories assuming rational behavior, empirical evidence shows that investors often rely on heuristics.
- These techniques, when not carefully analyzed or evaluated, can lead to systematic judgment errors.
- Investors seek to minimize losses and maximize profits, using different heuristics that influence their choices.

Role of Prospect Theory in Investment Decision-Making and How They Impact Investors' Choices

Prospect theory was formulated by psychologists Amos Tversky and Daniel Kahneman in 1979. It provides a more psychologically accurate model of decision-making compared to the traditional expected utility theory:



Source- Manoharan Kannadhasan, BIM, Trichy, Jun 2022. (PDF) Role of Behavioural Finance in Investment Decisions (researchgate.net)

Prospect Theory is a fundamental concept in behavioral economics that sheds light on how individuals perceive risk, reward, and make decisions. Prospect theory assumes that losses and gains are valued differently by individuals. When faced with choices, people tend to make decisions based on perceived gains rather than perceived losses. This phenomenon is also known as the “loss-aversion” theory.

Imagine two investment options presented to an investor, both with equal expected values. One option emphasizes potential gains, while the other highlights possible losses. According to prospect theory, the investor is more likely to choose the option framed in terms of potential gains.

The underlying explanation lies in the emotional impact of losses versus gains. Losses tend to affect individuals more significantly than equivalent gains. Given two choices that lead to the same outcome, people prefer the one associated with perceived gains. For instance, consider receiving \$25:

Option A: Receive \$25 outright.

Option B: Receive \$50 but then give back \$25.

Although the utility of the \$25 is the same in both options, individuals often choose Option A because a single gain feels more favorable than experiencing both gain and loss.

Decision-making under prospect theory involves a two-stage process, Editing Phase: Individuals simplify complex information by focusing on the most critical aspects. Evaluation Phase: They assess the simplified options and make a choice. This approach acknowledges that considering all available information simultaneously is impossible, so people narrow down their decision factors.

People tend to prefer certain outcomes over probabilistic ones. When making decisions, individuals often cancel out similar information and focus on distinct features. Prospect theory significantly impacts investment decisions:

- ✚ Investors avoid choices that could lead to perceived losses, even if the expected value is the same.
- ✚ This aversion to losses influences portfolio diversification and risk tolerance.

Conclusion

While cognitive illusions are commonly observed, behavioral finance does not assume that all investors will experience the same illusion simultaneously. Several factors influence an investor's

susceptibility to specific illusions. Not all investors exhibit the same cognitive biases or illusions.

Less experienced investors may be more prone to certain illusions, while seasoned investors might exhibit different biases. For example: Less experienced investors may extrapolate from limited data, assuming that recent trends will continue indefinitely. More experienced investors might fall prey to this fallacy, believing that past outcomes influence future events (e.g., assuming a stock will rise after a series of declines).

Investors' decision-making is significantly influenced by behavioral aspects. Emotional factors, social influences, and cognitive shortcuts impact investment choices. Recognizing these aspects allows investors to make more informed decisions. To mitigate the impact of cognitive illusions on decision-making, investors should take necessary precautions like enhance financial literacy to recognize biases and illusions diversify investments to reduce reliance on specific biases, regularly assess personal biases and adjust strategies accordingly.

Reference

- Abul, S.J. (2019). Factors influencing individual investor behaviour: Evidence from the Kuwait stock exchange. *Asian Social Science*, 15(3), 27-34.
- Agarwal, S., Qian, W., and Tan, R. (2020). Investment. In *Household Finance* (pp. 139-173). *Palgrave Macmillan, Singapore*.
- Ahmad, M. (2020). Does confidence matter in short-term and long-term investment decisions? Evidence from an emerging market. *Management Decision*.
- Ahmad, M. (2021). The role of recognition-based heuristics in investment management activities: are expert investors immune? –A systematic literature review. *Qualitative Research in Financial Markets*.
- Ahmad, M., & Shah, S. Z. A. (2020). Overconfidence heuristic-driven bias in investment decision-making and performance: mediating effects of risk perception and moderating effects of financial literacy. *Journal of Economic and Administrative Sciences*.
- Ahmed, Z., and Noreen, U. (2021). Role of Behavioral Determinants for Investment Decision Making. *Asia-Pacific Social Science Review*, 21(2).
- Aigbovo, O., and Ilaboya, O. J. (2019). Does Behavioral Biases Influences Individual

- Investment Decisions. *Management Science Review*, 10(1), 68-89.
- Chhapra, I. U., Kashif, M., Rehan, R., and Bai, A. (2018). An empirical investigation of investor's behavioral biases on financial decision making. *Asian Journal of Empirical Research*, 8(3), 99-109.
- Choi, J. J., and Robertson, A. Z. (2020). What matters to individual investors? Evidence from the horse's mouth. *The Journal of Finance*, 75(4), 1965-2020.
- Comlekci, I., and Ozer, A. (2018). Behavioral finance models, anomalies, and factors affecting investor psychology. In *Global Approaches in Financial Economics, Banking, and Finance* (pp. 309-330). Springer, Cham.
- Fitri, H. K., and Cahyaningdyah, D. (2021). The Influence of Representativeness on Investment Decision through over confidence. *Management Analysis Journal*, 10(2), 243-256.
- Gill, R. K., and Bajwa, R. (2018). Study on Behavioral Finance, Behavioral Biases, and Investment Decisions. *International Journal of Accounting and Financial Management Research*, 8(3), 1-14.
- Grohmann, A. (2018). Financial literacy and financial behavior: Evidence from the emerging Asian middle class. *Pacific-Basin Finance Journal*, 48, 129-143.
- Guercini, S., and Milanese, G. (2020). Cognitive biases and financial decision-making: A literature review. *Journal of Behavioral and Experimental Finance*, 27, 100371.
- Guercini, S., and Milanese, M. (2020). Heuristics in international business: a systematic literature review and directions for future research. *Journal of International Management*, 26(4), 100782.
- Hadbaa, H., and Boutti, R. (2019). Behavioral biases influencing the decision making of portfolio managers of capital securities and traders in Morocco.
- Jain, J., Walia, N., and Gupta, S. (2019). Evaluation of behavioral biases affecting investment decision making of individual equity investors by fuzzy analytic hierarchy process. *Review of Behavioral Finance*.
- Kahneman, D., and Tversky, A. (1981). The simulation heuristic. *Stanford Univ CA Dept of Psychology*.
- Khan, M.A. (2017). Cognitive biases and investment decision-making: A study of individual investors in Pakistan. *International Journal of Economics, Commerce and Management*, 5(4), 1-13.
- Saeed, M. (2019). Cognitive biases and financial decisions of potential investors during stock market bubbles. *Journal of Behavioral and Experimental Finance*, 23, 101297.
- Shah, S.Z.A., et al., (2018). An empirical assessment of financial literacy and behavioral biases on investment decision. *Frontiers in Psychology*, 9, 977444.
- Ul Abidin, Z., et al., (2017). Cognitive dissonance and investors' decision-making: A review. *Journal of Accounting & Marketing*, 6(4), 1000241.

CITATION OF THIS ARTICLE

Mishra, G. (2024). Analysis of Behavioural Finance In Reference To Cognitive Illusion, *Int. J. Agriworld*, 5 [1]: 5-10.