Role of Cognitive Biases in Understanding Financial Investment Behavior

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Abstract

Purpose: The main goal of this paper was to examine the many emotional biases and how they affected the way that people invest. Furthermore, it highlighted the importance of comprehending the impact of diverse affective prejudices to assist investors in making well-informed choices.

Methodology: The study identified six different forms of cognitive biases, including endowment, status quo, regret aversion, self-control, optimism, and overconfidence (illusion of knowledge). It also evaluated the influence of each type of bias on overall investment behavior.

Findings: The purpose of the suggested paper was to investigate how various emotional biases affected investors' lives when they made rational financial decisions. It also conducted an experiential analysis of previous research papers on cognitive biases to gain a deeper understanding of the significance of various biases and how they affected individual investors' decision-making.

Practical Implications: It has been repeatedly noted that mental biases help investors make judgments about their investments by serving as a compass in a variety of economic contexts. To optimize returns and demonstrate appropriate investment conduct, investors must be well-informed, logical, and not overly critical. They should also follow their own gut feelings and beliefs.

Originality: The purpose of the current study, according to the literature analysis, was to understand investor behavior in the securities markets and the effects of that activity.

Keywords: cognitive biases, financial investment behavior, financial education, behavioral finance, psychology of investors

JEL Classification Codes: G40, G41, G53

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n important factor in assisting investors in making logical financial decisions is emotional bias. The process of acting based on personal sentiments rather than the truth is known as emotional bias. When an investor is making an investment decision, this process elicits strong feelings and defies all rationality. An individual's decision in this process is made based on impulse or intuition. Investors are impacted by a variety of biases, which frequently skew their assessments of projected returns and the level of risk they are willing to take (Sinha & Shunmugasundaram, 2023). When investment reasoning is ambiguous, issues arise with selecting

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appropriate investment instruments, investment duration, investment advantages, and associated dangers. The study recognized that a large body of literature has been reviewed in the field of behavioral finance but that a particularly small amount of comparative research has been done regarding the various cognitive biases, how they affect investors' individual investing decisions, and the expected results for those investors (Mohapatra & Samal, 2020).

Review of Literature

Alguraan et al. (2016) conducted a study on the Saudi Arabian stock market to understand the impact of behavioral finance factors (risk aversion, herding, overconfidence, and risk perception) and their possible impact on individual investment decisions in stock markets. The results suggest that demographic variables have no impact on individual investment decision making and herding factor has no significance on the investors. Mittal and Shrivastava (2016) attempted to use a conceptual framework to identify the biases and factors that affect financial investment behavior. The study's findings demonstrated that a variety of psychological and social elements influence the decision-making process of both individual and institutional investors when making investments.

Charles and Kasilingam (2016) sought to ascertain the impact of behavioral bias variables on retail investors interested in the stock markets in Tamil Nadu. A total of 742 replies were gathered in order to make the study thorough and detailed. A multi-stage random sample strategy was employed to gather target data from respondents, and Cronbach's alpha test was chosen to assess dependability. Behavioral bias components were found to be interdependent by the application of structured equation modeling (SEM) in this study. In comparison to other relationship components, the final study indicated that heuristics and personality route coefficients are more powerful.

Rehan and Umer (2017) took the initiative to investigate how investors at the Pakistan Stock Exchange make decisions in light of cognitive and affective biases. A pre-tested and validated questionnaire was used to gather responses from 385 active investors for primary data-based research. Out of the seven behavioral biases that were examined in the study, only five were found to have a substantial and favorable influence on the decision-making process of investors.

Kandpal and Mehrotra (2021) conducted a study that intended to analyze the behavior of investors toward their investment pattern and also assess the factors an investor takes into consideration on making any investment decision. A questionnaire was utilized to survey 358 participants in the descriptive study, and the study was validated using primary and secondary data. As a result, before choosing any investment option, investors must assess their entire behavioral patterns, including their life goals, expenses, income, spending habits, perception of investments, period, thought process, changes in their lifestyle, risk tolerance, liquidity, and overall understanding of the investment objective in line with their goals. The study concluded that behavior plays a crucial role for investors in their decision-making process when it comes to investments.

In their research work, Upadhyay and Shah (2019) sought to understand the various aspects impacting investors' decision-making processes in order to get insight into their investing inclinations and psychology. The study employed a variety of techniques to gather data, including scheduling, questionnaires, observation techniques, and interviewing. By demonstrating that investors are not logical and are typically influenced by a variety of biases while making investment decisions, the researchers sought to understand the relationship between behavioral finance and its impact on investment decisions.

Khilar and Singh (2020) intended to understand the various emotional biases like overconfidence, loss aversion, home bias, and endowment bias and how they affect investor decision-making. The study concluded that it is very important to understand the various sentiments, moods and emotions in human behavior to make investors understand the behavior of the markets in a better manner and more researches are required to understand the unpopular biases and their possible impact on investor's decision-making. In a research study, Tupe (2021) attempted to evaluate how psychological biases affect a person's choice of investments. After observing 20 different forms of investor biases and four prominent behavioral investor types (preserver, follower, accumulator, and independent), the research study concluded that the majority of behavioral biases significantly affect investors' investing decisions.

Thambireddy (2021) conducted studies to assess the impact of various psychological biases on an individual's capacity to make individual investment decisions. A questionnaire was created, and responses were collected using primary data from 214 respondents in order to carry out the study in an organized manner. The survey's findings showed that most astute investors primarily base their investing decisions on their intuition. Mohanty et al. (2023) conducted empirical research to identify, examine and present a research design of behavioral finance on selected investors during the COVID-19 period. A carefully designed questionnaire was utilized to interview 200 respondents using convenience sampling. To evaluate the impact of cognitive elements on the respondents' financial decision-making process, multiple regression and discriminant function analysis were utilized. It was discovered that the respondents' decision-making process was most significantly impacted by recency and familiarity biases, whereas overconfidence bias had the least significant impact.

Painoli (2022) conducted a study to investigate the impact of behavioral biases on equities market investors' investment decision-making. An extensive literature review approach was used for the study, and it was inferred that behavioral finance tends to treat people like they are normal and not smart. Making decisions about investments is also impacted by behavioral biases. It was shown that cultivating an intellectual approach to investing is essential because it was quite challenging for the investor to get over their emotional prejudices when making investments. Investors should become aware of their emotional inclinations, create a plan to address them, and always consult specialists before making financial decisions.

Weixiang et al. (2022) conducted a new study that especially looked at behavioral biases and financial literacy and how they affect stock market investors' investment decisions. A structured questionnaire was designed, and a representative sample of 450 investors was taken for the study. SEM was used to conduct the final analysis, and it was inferred that heuristic bias had a sizeable impact on investment decision-making, and the individual investor's financial literacy level had a significant impact on the investment decision-making process of investors in the stock markets.

The literature study revealed the existence of six distinct forms of cognitive biases that have an impact on investors' psychological well-being:

- ♣ Endowment bias
- ♦ Status quo bias
- Regret aversion bias
- Self-control bias
- ♦ Optimism bias
- Overconfidence bias (illusion of knowledge)

Endowment Bias

Endowment Bias is all about attaching more value to one's present material possessions or assets rather than to something that one aspires to own in the future. This indicates that people are not as willing to part with their possessions and want to cling to them. The inclination of the person to overvalue things they own in comparison to identical objects they do not own is known as this form of bias (Bobde et al., 2017).

A study was conducted on 470 investors from Nagpur city who were participating in various mutual fund schemes in order to comprehend the significance of behavioral bias and its influence on investment decisions. The goal of the study was to determine whether endowment bias had an impact on the respondents' investing choices. The investors' decision-making ability is a function of both psychological and financial elements, with the endowment effect having a higher impact on the psychological factor, as the final results verified. Investors can make more logical decisions and get personal benefits if they can understand how endowment bias affects investment behavior (Pan, 2023).

People also like to hang onto their assets for an extended period in the financial world, which prevents them from switching to more profitable ones that may have increased their profits. When someone inherits assets, they tend to behave in this way since they know the investments and value them more than the markets could provide.

Status Quo Bias

Status quo bias sets in when an individual is very slow to react to the market changes regarding his investments. This results in the individual not changing the allocation of their investments and hence falling prey to the volatility of the markets. Under these circumstances, it is possible for an extremely aggressive investor to become unaware of the effects of market volatility and to reject the label of conservative investor, even though his investments, given the state of the market, end up being highly risky (Akgül & Çetin, 2019).

In an explanation-focused study, we attempted to comprehend the existence and influence of status quo prejudice among retail investors and automation bias on capital market investing decisions. The study was based on data collected through a Likert scale questionnaire that surveyed 496 retail investors in the capital markets. The outcome of the study inferred that there is a substantial presence of automation bias and status quo bias on retail investors in the capital markets also, there is a considerable and statistically significant magnitude of impact of both these biases. Further investigation revealed that in order to protect themselves from probable downturns and avoid behavioral biases in investment decisions, investors must adopt a few critical actions (Shukla & Shukla, 2023).

The impact of status quo bias, its reliable measurement, and the subsequent countermeasures that can be implemented were the subjects of yet another recent study. Additionally, comprehensive research identified three dimensions of cognitive misperception, rational decision-making, and psychological commitment to status quo bias, in addition to four measuring methodologies and 13 interventions. A detailed literature review confirmed that the researchers recommended certain countermeasures addressing the rational decision-making aspect only if the decision options were more precisely laid out. It was confirmed that more research was necessary to fully comprehend these phenomena, even though the degree to which the desired change is defined may also rely on the setting of the research topic. We also recommended a number of countermeasures; however, further investigation was needed to determine the precise countermeasure combination (Godefroid et al., 2023).

An investor may not be able to expand their money as their lives change if they do not want to alter their asset portfolio. Even though something may be objectively better, people tend to stick with what they are doing or their decisions.

Regret Aversion Bias

Regret aversion bias is all about an individual being afraid of taking any action with the fear factor running at the back of his mind of being wrong. It is a form of the sin of omission, which is equivalent to doing nothing because one is unsure about how things will turn out in the future.

A study was undertaken to decipher the relationship between two important behavioral biases, namely loss aversion and regret aversion, on the decision-making aspect of investors. One hundred twenty-five respondents from the SME segment in the Bululawang district of Indonesia were surveyed for the study using a questionnaire method. A structural model was developed using AMOS software. The final observations made it evident that there was a significant relationship between loss aversion bias and regret aversion bias in investment decision-making. It was also concluded that if the SME's financial literacy is better, there will be less biased behavior exhibited by investors, thereby projecting a positive impact on overall decision-making (Rahawarin, 2023).

An independent investigation sought to comprehend how risk perception moderated the association between regret aversion and loss aversion biases in retail Pakistan Stock Exchange (PSX) investors. Primary data were collected using a questionnaire distributed to 384 respondents registered on the PSX. The results were authenticated and analyzed using the SEM method. The study's concluding findings showed that risk perception between the two emotional biases was determined to be modest and that both regret aversion and loss aversion had a statistically significant and unfavorable impact on individual investors' trading frequency (Shafqat & Malik, 2021).

Investors choose low-risk stocks out of regret aversion, missing out on the chance to earn higher returns. They might refrain from making decisions that might leave them disappointed. As a result, it denies the investor the ability to make informed selections.

Self-Control Bias

Self-control bias is a phenomenon in which an individual overrides their urges to invest in the desired portfolio, having fear at the back of their mind or apprehensions of losing the deal. A person who exhibits this bias typically considers notions related to the marginal propensity to consume and prioritizes short-term satisfaction over long-term, current aims.

A study was employed using a theoretical model based on behavioral finance theories and a hypothetic-deductive methodology on six identified behavioral biases and their impact on investment decisions. A Likert scale-based structured questionnaire was used to gather demographic information and other pertinent facts from 237 participants for the study. Extensive analytical methods were employed to get the outcomes from the development of several models. The study concluded that all six behavioral biases significantly impacted investment decisions, with emotional stability having a moderate impact. This suggests that those with higher emotional stability are less vulnerable to the negative effects of behavioral biases on investment decisions (Gulzar & Ali, 2023).

One more research study was undertaken to identify the factors of emotional biases in investment behavior and their degree of relation and dependency of the emotional factors on overall investment behavior. To get definitive proof of the study, the researcher employed various statistical analytic approaches and conducted a reliability test. The final results demonstrate how strongly all emotional biases affect investors' investing decisions. It also has broad ramifications for investors, finance professionals, and politicians, which might greatly benefit them by preventing them from overreacting to news about market volatility and enabling them to make better-informed investment decisions (Ganguly, 2023).

This kind of bias is associated with the propensity to put immediate gratification ahead of long-term objectives. Investors frequently struggle with self-control, choosing instant gratification over delayed gratification even when they know that the latter would be more advantageous.

Optimism Bias

In optimism bias, an individual tends to think that whatever the present situation is, it is going to be better in the future. As a result of this belief, even if the performance of their investment is not better today, they believe in the concept of trying for the better or strongly feel that the best phase of investment is yet to arrive. These individuals

often perceive themselves as having a better-than-average chance of experiencing positive outcomes and a lowerthan-average chance of experiencing negative outcomes.

An exploratory study was undertaken to find out the different types of behavioral biases that existed in the IPO markets in India. On the basis of the study, 11 behavioral biases were identified through a primary study conducted amongst 500 retail investors from various locations in the state of Gujarat. Data were gathered by the survey approach and a standardized questionnaire that was created. The study found that overconfidence bias was one of the many biases that investors had while making decisions about their investments in the IPO markets (Majmudar et al., 2018).

We conducted a study to perceive the significant impact of different biases on investment behavior in the Indian context. An extensive literature review was undertaken to understand the importance of the study and identify reasonable research gaps. The research findings validated the presence of significant psychological biases in the decision-making process of individual investors, hence indicating their irrationality. Furthermore, the limitations of this study indicated a great deal of room for additional investigation and logical decisionmaking (Yadav & Singh, 2022). It is a known fact that optimism can occasionally lead to risk and uncertainty. As a result, it is suggested that people occasionally trust news and opinions rather than their gut feelings.

Overconfidence Bias (Illusion of Knowledge)

Often, an individual believes that they are better informed than the rest of the market regarding the performance of their investments. They start to feel that they have better information-processing capabilities than others. Here, people tend to overestimate their accuracy and competence (Samal & Mohapatra, 2020).

Using secondary data from the BSE 100 Index, we conducted a study to evaluate the impact of overconfidence bias in three distinct market scenarios: pre-crisis (2006–2008), crash (2008–2010), and post-crash (2010–2015, 2015–2020, 2020–2021). An extensive analytical test was carried out using the impulse response function, vector autoregression, and Block Exogeneity Wald Test. The results confirmed that investors exhibited overconfident behavior prior to the crash and that the past returns during that time did not significantly affect the turnover, indicating that investors were not overconfident. Investors, brokers, and other pertinent capital markets stakeholders might aim to avoid overconfident behavior when making investment decisions by using the study's results (Kumar & Prince, 2022).

In another study, after conducting an extensive literature review, some overconfidence variables were identified, namely self-attribution, better-than-average effect, optimism, the illusion of control, miscalibration, trading frequency, and trading experience. A standardized questionnaire using a 5-point Likert scale was employed to survey one hundred active stock market traders on a regular basis. It was discovered that when making investing judgments, investors exhibited overconfidence. Additional analysis supported the notion that investors overestimated their expertise, aptitude for selecting and keeping stocks, control over their portfolio, optimism, and other attributes (Trehan & Sinha, 2018).

This type of investor behavior sets off to underestimate future risk and set odds against too high and better outcomes against poor outcomes.

Research Gap

In previous studies, we and eminent scholars have studied the various factors that impacted the investment decision-making of investors in the Indian capital market, but they have not been able to gauge the effect of psychological biases. In this study, the goal has been to comprehend how a specific bias might impact investors' regular investment behavior and how it would ultimately manifest itself in terms of overall investment philosophy.

Need for the Study

Indian capital markets are ever-expanding and adept with a lot of technological and regulatory changes. It is also impacted by the various developments in the economy and the industry in particular. Thus, an investor needs to comprehend market behavior, stock market trends, investor expectations, investor strategies, and anticipated volatility. Making educated investing judgments may be possible for an investor if they are aware of the extent to which a certain bias may manifest. In general, during periods of capital market volatility, this will have a favorable effect on investment returns.

Objectives of the Study

The objectives of the study are mentioned below:

- (1) To identify the impact of various biases on individual investment behavior along with their possible outcome.
- (2) To understand if the various biases affect the investment decision-making of individual investors or not.

Research Design

Methodology

This research is exploratory in nature. The study's exploratory research design aims to comprehend how different behavioral biases affect investors' perceptions. It attempts to evaluate the way in which investors behave when making investments, as well as the influence of their preexisting beliefs and prejudices that might affect their capital market outcomes.

Sources of Data Collection

There were no primary data gathered for the research. To make significant conclusions about the study, secondary data was acquired by consulting a variety of magazines, articles, journals, newspapers, and research papers that provided insightful information on the subject.

Sample Size and Technique

As the study is not based on primary data, no specific sample size is defined. The respondents are the investors who have or are making regular investments in the Indian capital markets.

Duration of the Study

The study mentioned above was undertaken in November 2022 for a brief duration of one month only.

Analysis and Results

A thorough evaluation of pertinent research publications was done in order to determine whether or not behavioral biases actually have an impact on the financial investing behavior of individual investors. The same is reflected in Table 1 in the research study.

Table 1. Comparison of Various Biases and Their Impact on Investment Behavior

Type of Bias	Investment Behavior	Outcome
Endowment Bias	Resistant to selling securities already inherited for such reasons as disloyalty, taxes, and transaction costs.	Losses are more than the expected gains which can be experienced if new investments are made.
Status Quo Bias	Investor keeps away from selling underperforming securities; sometimes take too much risk of holding high-risk investments or act conservatively to cover up potential risks. Operate under familiarity or fondness phenomenon.	For the evident reason of having to pay large trading expenses, investors hang onto stocks or securities that are performing poorly or that they do not want to sell.
Regret Aversion Bias 0	Investor avoids taking any action that may result in regret over the years. They exhibit peculiar behaviors like holding on to "losers" for fear of selling at a loss or avoiding taking gains n a "winner" for fear of foregoing near-future gains	Investors exhibit herd mentality and buy "more popular" stocks, leaving out "less popular" ones for the obvious reasons of anticipating future gains. It tends to let the investor believe that not only them but scores of people are wrong together in taking investment decisions.
Self-Control Bias	Investors prioritize saving money to invest in the future. They believe in fulfilling short-term obligations, and later on, if their savings permit, the surplus money gets invested.	An investor can enjoy a better life after retirement by saving money now to help cover his future rising expenses. Investors are more focused on growing their money in the future by curtailing too many needs which is not relevant at present.
Optimism Bias	Investors tend to think that their investments are going to beat the markets in the future and rely more on the good market news than the bad ones. Investors bet more on good stocks or invest too much in their own company's stock.	When it comes to their investments, investors make biased decisions because they fail to consider the possibility of risk and uncertainty surrounding the securities markets. Usually, it is an exception.
of	The superiority complex that arises from believing one knows more than previous investors suffers from investors. There are two fferent kinds of overconfidence bias: overconfidence in predictions and overconfidence in certainty. Having a small range of estimations or confidence intervals and being overconfident in the accuracy a prediction is known as prediction overconfidence. Assigning an excessively high probability to a	Too many times, investors trade to profit from news that is circulating in the markets and may elicit favorable responses.
pa	rticular result is known as certainty overconfidence	2.

Source: Author's literature review and self-analysis of each cognitive along with the individual investment behavior and their outcomes.

In his research study, Suresh (2024) noted that behavioral biases in investment decisions are often the result of cognitive illusions. There aren't many precursors of cognitive illusions that typically direct investors to deviate from reason while assessing investments. In an empirical analysis of multiple research studies, Shukla et al. (2021) discovered that overconfidence bias prevents traders from effectively managing and controlling risk and causes them to overestimate their ability to foresee market occurrences, which results in worse returns. According to similar studies, men were perceived as being more overconfident than women with their stock market knowledge, while institutional investors were the least overconfident and investment counselors were the most overconfident. Balasudarsun et al. (2020) provided another important dimension in a study indicating that

cognitive biases prevent investors from realizing a complete sense of rationality at the time of investment decision-making. With every investment decision option, there is an element of uncertainty and risk coupled with an act of rationality.

Ishfaq et al. (2020) carried out a research study to investigate the direct and indirect effects of cognitive biases on investors' irrational behavior among 247 investors in various brokerage houses in Pakistan, which led to the conclusion that cognitive biases positively affected investors' irrational decision making both directly and indirectly. Similar research confirmed that cognitive bias accounted for the majority of variances in financial investment decision-making. Over time, these research findings have demonstrated that these biases lower the caliber of choices that investors make in the capital market. The relationship between several biases and irrationality in financial decision-making was found by Dhungana et al. (2022). The research additionally demonstrated that while the majority of biases influenced irrational investment decisions, the overconfidence bias had the least effect relative to the rest.

Samal and Mahapatra (2020) intended to analyze how the decision-making process of investors was influenced by their cognitive errors or mental mistakes and emotions. The study's conclusions show that understanding behavioral finance and various biases is essential for investors to make sane and practical investment decisions. Additionally, a thorough understanding of these biases enables investors to identify both their own and other people's cognitive errors. By doing this, clients can restructure their portfolios and position themselves to benefit from higher returns.

Overall, the review studies above indicate that cognitive biases have a big influence on investment decisions. Particularly, potent biases that impact risk management, rationality, and decision quality are overconfidence, status quo, and regret aversion. For investors to make wise and sensible decisions, evaluating these biases is essential. Furthermore, the study underscores the need for behavioral finance expertise in realigning portfolios for enhanced returns and stresses the necessity for investors to recognize their cognitive fallacies and prejudices.

Findings

The major findings of the study indicate the following:

- Numerous research confirms that cognitive biases, including endowment, status quo, regret aversion, self-control, optimism, and overconfidence, have a major impact on investment decisions and shape investor behavior.
- Research studies indicate that while herding elements have different substantial effects on individual investing decisions, demographic considerations do not consistently influence those decisions.
- There is a strong need to understand investment decisions because emotional biases like overconfidence, loss aversion, home bias, and endowment bias affect decision-making to a great extent.
- Research indicates that enhancing financial literacy is crucial in order to identify various forms of bias and provide analytical methods that facilitate the making of more sensible and knowledgeable investment choices.

Suggestions

The study and results indicate that the following recommendations could be put into practice.

The study suggests that in order for investors to gain a better understanding of how behavioral biases affect the decision-making process, they should be encouraged to increase their level of financial literacy.

- \$ Investors should be aware of common biases such as overconfidence, loss aversion, and endowment bias and actively work to recognize them and develop strategies to mitigate their influence.
- \$\text{Investors need to adopt analytical approaches in investment decision-making enabling them to make rational choices based on data and objective analysis.
- \$\triangle\$ To overcome emotional biases and make well-informed investing decisions, investors are urged to consult financial specialists.

Conclusion

The goal of the research article has been to identify the moods, sentiments, and emotions that investors experience while making logical financial judgments. When investing their hard-earned money in the securities markets, investors might use mental biases as a guiding principle in a variety of economic scenarios. Investing requires discipline and is frequently best done with knowledge from prior experiences and caution. When interacting with news, opinions, and information, investors should also be well-informed, reasonable, and not overly critical of others. As an alternative, individuals ought to trust their gut feelings, intuitions, and emotions to guide them in making the best financial decisions and maximizing their profits.

Managerial and Theoretical Implications

Investment companies can create risk management plans by taking into account the influence of emotional biases on decision-making based on the comprehensive study. More robust and adaptable investing strategies may be achieved by putting into practice risk mitigation techniques for particular biases, such as creating tools to control regret aversion or procedures to combat overconfidence bias.

Investment advisors and financial institutions can incorporate behavioral finance principles into their advisory services. Suppose they are able to recognize and address the emotional biases of investors. In that case, advisors may easily tailor their recommendations in alignment with individual risk appetites, financial goals, and behavioral tendencies, thereby leading to better investment outcomes and increased client satisfaction. To raise investors' understanding of cognitive biases, financial institutions and market regulators could consider launching investor education initiatives. By providing them with knowledge regarding typical biases, including endowment, status quo, regret aversion, self-control, optimism, and overconfidence, investors may be better equipped to make logical and well-informed investing decisions.

Conventional investment models frequently emphasize making logical decisions by examining past performance and current market patterns. The research on the data from the literature review highlights how important emotional elements are in determining an investor's investment behavior. A more thorough knowledge of market dynamics and investor behavior may result from the integration of these affective components into the financial models that are already in use. The body of research already in existence sheds light on how particular cognitive biases affect investing behavior. It provides empirical evidence on how different biases affect decisionmaking processes, which advances behavioral finance theories. Future scholars can expand upon these results to improve upon current ideas and create new frameworks. Additionally, the results support and add to earlier studies on behavioral biases in the context of investing decisions. Researchers can use these results to support and bolster the body of data supporting the impact of particular biases. This could strengthen the behavioral finance literature's dependability and coherence.

Limitations of the Study and Scope for Further Research

The study is not thought to be infallible because no primary data were obtained for it, and all of the conclusions are derived from secondary data sources. Since we did not create a structured questionnaire, more research in this area can be done to improve the results. The thorough literature review that was carried out above clearly shows that more study is needed. All of the identified biases, including overconfidence, optimism, regret aversion, endowment, and self-control biases, may be thoroughly investigated in future studies. Examining each of these biases independently allows us to try to pinpoint specific aspects of how they influence judgment as well as potential countermeasures.

Additionally, if market conditions, economic trends, and world events change, investors' emotional biases may also change. The dynamic nature of emotional biases and their adaptability could be better understood by looking at a small number of comprehensive studies that monitor investors' prejudices throughout various market circumstances and economic cycles. It may be helpful to research the creation and efficacy of intervention techniques to lessen emotional biases. Examining educational initiatives, technological aids, or therapeutic modalities targeted at enhancing investors' emotional fortitude and consciousness may provide workable ways to improve the caliber of decision-making.

Authors' Contribution

Dr. Sonia Riyat conceived the idea and suggested the topic on the basis of the interest exhibited by Chanchal Mandal. Mr. Mandal conducted a thorough literature review and collected all the necessary research papers for the study. Dr. Riyat filtered the relevant research papers and developed the broad framework of the research paper under consideration. Mr. Mandal wrote the manuscript in consultation with the co-author and received ample guidance on all aspects of the study to modify and reshape the research paper into its present state.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.

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References

- Akgül, E. F., & Çetin, I. B. (2019). A qualitative research on ship investments in Turkey. *Journal of ETA Maritime Science*, 7(3), 228–241. https://doi.org/10.5505/jems.2019.72621
- Alquraan, T., Alqisie, A., & Shorafa, A. A. (2016). Do behavioral finance factors influence stock investment decisions of individual investors? (Evidences from Saudi Stock Market). *American International Journal of Contemporary Research*, 6(3), 159–169.
- Balasudarsun, N. L., Sathish, M., Anifa, M., & Hema. (2020). A systematic review on investors' behavior in stock market. In, 4th International Conference on Marketing, Technology & Society 2020. https://forms.iimk.ac.in/research/markconf20/Proceedings/117.pdf
- 30 Indian Journal of Research in Capital Markets January March 2024

- Bobde, A. P., Bagde, P. T., & Goje, N. S. (2017). An analytical study of psychological behavior of investors investing in mutual funds with reference to endowment bias & self-control bias. International Journal of *Engineering Development and Research*, 5(4), 644–648.
- Charles, A., & Kasilingam, R. (2016). Impact of selected behavioural bias factors on investment decisions of equity investors. ICTACT Journal of Management Studies, 2(2), 297-311. http://doi.org/10.21917/ijms.2016.0039
- Dhungana, B. R., Bhandari, S., Ojha, D., & Sharma, L. K. (2022). Effect of cognitive biases on investment decision making: A case of Pokhara Valley, Nepal. Quest Journal of Management and Social Sciences, 4(1), 71–84. https://doi.org/10.3126/qjmss.v4i1.45868
- Ganguly, D. (2023). Emotional biases in investment behaviour. Journal of Emerging Technologies and Innovative Research (JETIR), 10(5), n485–n492. https://www.jetir.org/papers/JETIR2305D71.pdf
- Godefroid, M.-E., Plattfaut, R., & Niehaves, B. (2023). How to measure the status quo bias? A review of current literature. Management Review Quarterly, 73, 1667–1711. https://doi.org/10.1007/s11301-022-00283-8
- Gulzar, T. I., & Ali, N. (2023). The influence of behavioral biases on investment decisions; Moderating role of emotional stability. Journal of Development and Social Sciences, 4(2), 692-708. https://doi.org/10.47205/jdss.2023(4-II)61
- Ishfaq, M., Nazir, M. S., Qamar, M. A., & Usman, M. (2020). Cognitive bias and the extraversion personality shaping the behavior of investors. Frontiers in Psychology, 11, 556506. https://doi.org/10.3389/fpsyg.2020.556506
- Kandpal, V., & Mehrotra, R. (2021). Role of behavioral finance in investment decision A study of investment behavior in India. International Journal of Management Studies, 5(6), 39-49. https://researchersworld.com/index.php/ijms/article/view/1961
- Khilar, R. P., & Singh, S. (2020). Role of emotional bias on investment decision from behavioural finance perspective. International Journal of Scientific & Technology Research, 9(3), 3457–3460.
- Kumar, J., & Prince, N. (2022). Overconfidence bias in the Indian stock market in diverse market situations: An empirical study. International Journal of System Assurance Engineering and Management, 13, 3031–3047. https://doi.org/10.1007/s13198-022-01792-1
- Majmudar, N., Joshi, P., & Dave, K. K. (2018). Behavioural bias in IPO market. RESEARCH REVIEW International Journal of Multidisciplinary, 3(9), 427–433. https://doi.org/10.5281/zenodo.1421878
- Mittal, S. K., & Shrivastava, D. (2016). Investment behavior & biases of investor: An empirical research agenda in Indian perspective. International Journal of Advanced Technology in Engineering and Science, 4(12), 234-246.
- Mohanty, S., Patnaik, B. C., Satpathy, I., & Sahoo, S. K. (2023). Cognitive biases and financial decisions of potential investors during COVID-19: An exploration. Arab Gulf Journal of Scientific Research. Vol. ahead of print, No. Ahead of print. https://doi.org/10.1108/AGJSR-12-2022-0296
- Mohapatra, A. K., & Samal, A. (2020). A study on the impact of behavioral biases on investment decisions of risk seeking investors in India. International Journal of Psychosocial Rehabilitation, 24(8), 1815–1832.

- Painoli, G. K. (2022). A study on behavioral biases and personal investment decision: Recent systematic literature review. *International Journal of Research and Analytical Reviews*, *3*(3), 418–433.
- Pan, Y. (2023). The application of endowment bias in the field of investment. In, *Advances in Economics Management and Political Sciences* (Vol. 13, pp. 177–182). https://doi.org/10.54254/2754-1169/13/20230703
- Rahawarin, F. R. (2023). The effect of loss aversion bias and regret aversion bias on financial decisions with financial literacy as an intervening variable. *Accounting and Finance Studies*, 3(1), 24–37. https://doi.org/10.47153/afs31.5512023
- Rehan, R., & Umer, I. (2017). Behavioural biases and investor decisions. *Market Forces Research Journal*, 12(2), 12–20.
- Samal, A., & Mohapatra, A. K. (2019). A systematic review on behavioral biases: A study related to herding and overconfidence. *Pramana Research Journal*, *9*(4), 72–81.
- Samal, A., & Mohapatra, A. K. (2020). Impact of behavioral biases on investment decisions: A study on selected risk averse investors in India. *International Journal of Advanced Science and Technology*, 29(6), 2408–2425. http://sersc.org/journals/index.php/IJAST/article/view/11084
- Shafqat, S. I., & Malik, I. R. (2021). Role of regret aversion and loss aversion emotional biases in determining individual investors' trading frequency: Moderating effects of risk perception. *Humanities & Social Sciences Reviews*, 9(3), 1373–1386. https://doi.org/10.18510/hssr.2021.93137
- Shukla, S., & Shukla, S. K. (2023). Impact of automation bias and status quo bias on capital market investment decisions of Indian investors: An explanatory research, *Financial Markets, Institutions and Risks*, 7(3), 1–11. https://doi.org/10.61093/fmir.7(3).1-11.2023
- Shukla, S., Mishra, S. K., & Rai, H. (2021). Optimistic bias, risky behavior, and social norms among Indian college students during COVID-19. *Personality and Individual Differences*, 183, 111076. https://doi.org/10.1016/j.paid.2021.111076
- Sinha, A., & Shunmugasundaram, V. (2023). Behavioral factors influencing investment decisions: A systematic review using PRISMA. *International Journal of Accounting & Finance Review*, 14(1), 40–52. https://doi.org/10.46281/ijafr.v14il.1968
- Suresh, G. (2024). Impact of financial literacy and behavioural biases on investment decision-making. *FIIB Business Review*, *13*(1), 72–86. https://doi.org/10.1177/23197145211035481
- Thambireddy, H. (2021). How psychological biases influence investors decisions Evidence from Indian stock market. *Phronimos*, 1(2), 22–36.
- Trehan, B., & Sinha, A. K. (2018). A study of existence of overconfidence biases among investors and its impact on investment decision. Available at SSRN. https://ssrn.com/abstract=3285671
- Tupe, V. A. (2021). A study of impact of psychological biases on investor's investment decision. *EPRA International Journal of Economic and Business Review*, 9(8), 1–6. https://doi.org/10.36713/epra8324
- Upadhyay, D., & Shah, P. (2019). A study on behavioral finance in investment decisions of investors in Ahmedabad. *International Journal of Novel Research and Development*, *4*(7), 103–114.

- Weixiang, S., Qamruzzaman, M., Rui, W., & Kler, R. (2022). An empirical assessment of financial literacy and behavioral biases on investment decision: Fresh evidence from small investor perception. Frontiers in Psychology, 13, 977444. https://doi.org/10.3389/fpsyg.2022.977444
- Yaday, Y., & Singh, V. P. (2022). Impact of psychological biases on stock market investment pattern: A review of literature. *Stochastic Modeling & Applications*, 26(3), 125–130.

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