

**EFFECT OF BEHAVIORAL BIASES ON INVESTMENT DECISION
MAKING AMONG NEPALESE INVESTORS**

A Dissertation Submitted to the Office of the Dean, Faculty of Management in Partial
Fulfillment of the Requirements for the Master of Business Studies (MBS)

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September, 2024

Certification of Authorship

I certify that the work in this thesis entitled "**Effect of Behavioral Biases on Investment Decision Making among Nepalese Investors**" has not previously been submitted for a degree nor has it been submitted as part of requirement for a degree except as fully acknowledged with in the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the thesis.

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Acknowledgements

I would like to express my deepest gratitude to everyone who contributed to the successful completion of my graduate research project, titled "Effect of Behavioral Biases on Investment Decision Making among Nepalese Investors."

First and foremost, I am immensely thankful to my supervisor, Dr. Pitri Raj Adhikari, for his exceptional guidance and unwavering support throughout this research journey. Her insightful feedback, expertise, and encouragement have been invaluable in shaping this study and deepening my understanding of the subject matter.

I am also deeply appreciative of the participants who generously offered their time and shared their perspectives. Their contributions have significantly enriched the research findings and made this study more comprehensive and meaningful.

My sincere thanks go to the faculty and staff of Shanker Dev Campus, Kathmandu, for providing a nurturing academic environment and essential resources that facilitated my research. Their commitment to promoting research and academic excellence has been a constant source of inspiration.

I am profoundly grateful to my family and friends for their constant encouragement, patience, and unwavering support throughout this journey. Their belief in my abilities has been a continuous source of strength and motivation.

Finally, I wish to acknowledge the work of researchers, scholars, and authors whose research laid the groundwork for my study. Their pioneering contributions have been instrumental in shaping my research and advancing my knowledge in this field.

While it is impossible to individually acknowledge everyone who has supported me, please accept my heartfelt thanks for your invaluable contributions. Your assistance has been essential to the success of this research.

Sabita Shah

Table of Contents

Contents	Page No.
<i>Title Page</i>	<i>i</i>
<i>Certification of Authorship</i>	<i>ii</i>
<i>Report of Research Committee</i>	<i>iii</i>
<i>Approval Sheet</i>	<i>iv</i>
<i>Acknowledgements</i>	<i>v</i>
<i>Table of Contents</i>	<i>vi</i>
<i>List of Tables</i>	<i>viii</i>
<i>List of Figures</i>	<i>ix</i>
<i>Abbreviations</i>	<i>x</i>
<i>Abstracts</i>	<i>xi</i>
CHAPTER - I INTRODUCTION	1
1.1 Background of the study	1
1.2 Problem statement	4
1.3 Objective of the study	5
1.4 Research hypothesis	6
1.5 Rationale of the study	8
1.6 Limitations of the study	9
CHAPTER - II LITERATURE REVIEW	10
2.1 Introduction	10
2.2 Theoretical review	10
2.3 Conceptual review	13
2.3 Empirical review	17
2.4 Research gap	29
CHAPTER - III RESEARCH METHODOLOGY	31
3.1 Introduction	31
3.2 Research design	31
3.3 Population, sample, and sampling design	32
3.4 Nature and sources of data	33
3.5. Instrument of data collection	33

3.6. Reliability analysis	34
3.7 Methods of analysis	35
3.8 Research framework and definition of variables	39
CHAPTER - IV REASULT AND DISCUSSION	43
4.1 Introduction	43
4.2 Descriptive statistics	43
4.2.1 Demographic profile of respondents	43
4.2.2 Descriptive analysis of variables	47
4.3 Inferential statistics	54
4.3.1 Correlation analysis	54
4.3.2 Regression analysis	56
4.4 Hypothesis testing	61
4.5 Major findings	63
4.6 Discussion	65
CHAPTER - IV SUMMARY AND CONCLUSION	68
5.1 Summary	68
5.2 Conclusion	70
5.3 Implications	71
References	
Appendix	

List of Tables

Table 1	Summary of Empirical Review.....	24
Table 2	Reliability Statistics	35
Table 3	Demographic Profile of Respondents	44
Table 4	Descriptive Statistics of Overconfidence Bias.....	47
Table 5	Descriptive Statistics of Anchoring Bias	48
Table 6	Descriptive Statistics of Regret Aversion Bias.....	49
Table 7	Descriptive Statistics of Herding Bias	50
Table 8	Descriptive Statistics of Availability Bias	51
Table 9	Descriptive Statistics of Investment Decision Making.	52
Table 10	Descriptive Statistics Summary	53
Table 11	Correlation Matrix	55
Table 12	Model Summary of Regression Analysis	57
Table 13	ANOVA Table	58
Table 14	Coefficients Analysis	59
Table 15	Summary of Hypothesis Testing.....	63

List of Figure

Figure 1 Conceptual Framework of the Study.....	40
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Abbreviations

AB	:	Availability Bias
AnB	:	Anchoring Bias
ANOVA	:	Analysis of Variance
CML	:	Capital Market Line
CPT	:	Cumulative Prospect Theory
DV	:	Dependent Variable
EMH	:	Efficient Market Hypothesis
HB	:	Herding Bias
IDM	:	Investment Decision-Making
IVs	:	Independent Variables
MPT	:	Modern Portfolio Theory
NEPSE	:	Nepal Stock Exchange
OB	:	Overconfidence Bias
RAB	:	Regret Aversion Bias
SPSS	:	Statistical Package for the Social Sciences

Abstract

This study investigates the effect of behavioral biases on investment decision making among Nepalese investors. The research focuses on five key biases: overconfidence, anchoring, regret aversion, herding, and availability. Data were collected from a primary source using a structured questionnaire, with a sample of 385 investors selected through convenience sampling. The collected data were analyzed using descriptive statistics, correlation, and regression analysis through SPSS. The results highlight the significant prevalence of these biases among Nepalese investors, and significantly impact their investment decision making processes. The correlation analysis revealed that all five behavioral biases overconfidence, anchoring, regret aversion, herding, and availability are significantly and positively correlated with investment decision making among Nepalese investors. Overconfidence and herding biases showed the strongest correlations, suggesting they play a particularly critical role in shaping investment behaviors. The regression analysis confirmed that all five behavioral biases overconfidence, anchoring, regret aversion, herding, and availability have a significant impact on investment decision making among Nepalese investors. Each bias was found to significantly influence investment behavior, with overconfidence and herding biases emerging as the most impactful factors. These insights have significant implications for policymakers and financial educators, suggesting the need for targeted interventions to mitigate the effects of these biases. Future research should investigate these biases across different demographics and regions to provide a more comprehensive understanding of behavioral finance in diverse contexts.

Keywords: *Invest Decision Making, Overconfidence Bias, Availability Bias, Herding Bias, Anchoring Bias, and Regret Aversion Bias*

CHAPTER - I

INTRODUCTION

1.1 Background of the study

The process of making investment decisions is extremely important and is influenced by a wide range of psychological and contextual factors, especially within financial markets. It's crucial to note that investors are not consistently rational, and their decision making is often impacted by behavioral biases such as overconfidence, herding behavior, regret aversion, and anchoring bias (Antony & Joseph, 2017). These biases could result in suboptimal investment decisions, leading to market inefficiencies and heightened volatility. Recognizing and addressing these biases is crucial for making well informed investment choices and reducing potential risks (Gurung et al., 2024).

The Nepal Stock Exchange (NEPSE) has experienced considerable volatility throughout its history, with significant fluctuations in its market index. Over time, the index has shown dramatic peaks and declines, reflecting a dynamic and unpredictable market environment. The total market capitalization of the listed companies indicates a substantial yet variable market landscape. NEPSE comprises a diverse range of companies across various sectors, including banking, hydro-power, manufacturing, and insurance. The increase in investor engagement is evident from the growing number of Demat accounts, highlighting rising interest in the stock market despite its inherent volatility and evolving investor attitudes. (Merolagani, 2024).

In the past few years, there has been an increasing focus on behavioral finance, which is a field that combines psychology and economics to study how cognitive errors and emotional factors impact investors' decision making processes. Unlike traditional finance theories that assume individuals act rationally to maximize utility, numerous studies have revealed that real-world investment decisions often stray from this assumption due to the influence of biases. This has prompted a growing interest in understanding and addressing these behavioral factors to improve the accuracy of investment decision making (Wibowo et al., 2023).

The relationship between behavioral biases and investment decision making is a critical area of study in finance, as it challenges the traditional assumption that

investors always act rationally. Behavioral biases such as overconfidence, anchoring, and herding can significantly impact how investors evaluate risks and make decisions, often leading to irrational outcomes that deviate from optimal investment strategies (Abideen et al., 2023). These biases can cause investors to misjudge market trends, overreact to short-term information, or follow the crowd, resulting in suboptimal portfolio performance and increased market volatility. As research in behavioral finance has grown, studies have increasingly highlighted the importance of understanding these biases to improve decision making processes and enhance market efficiency. By integrating insights from psychology, finance professionals can develop strategies to mitigate the negative effects of these biases, leading to more informed and rational investment choices (Ritter, 2020; Baker & Ricciardi, 2015).

Overconfidence bias refers to investors overestimating their own investment abilities and knowledge. This inflated self-view can lead to risky decisions and frequent trading, as overconfident investors underestimate potential risks and market uncertainties. The overconfidence bias occurs when investors have an overly optimistic view of their investment skills and knowledge. This can lead to increased risk-taking and excessive trading as overconfident investors underestimate the potential risks and uncertainties in the market (Angote et al., 2021). On the other hand, anchoring bias happens when individuals give excessive weight to the initial piece of information they receive. This can lead to distorted judgments and a lack of adaptability when new information becomes available, as individuals rely too heavily on outdated or irrelevant data (Gupta & Shrivastava, 2021).

Regret aversion bias is the avoidance of decisions that might lead to future regret. Investors influenced by this bias may avoid risky but potentially beneficial choices, leading to overly conservative strategies and missed opportunities (Gurung et al., 2024). This hesitation can prevent investors from capitalizing on high-return investments, ultimately hindering portfolio growth. On the other hand, herding bias involves following the actions of others rather than making independent decisions. This can lead to market bubbles or crashes as investors collectively move in the same direction based on others' actions, exacerbating market volatility. The tendency to follow the crowd may also lead to inflated asset prices, disconnecting them from their

intrinsic values and increasing the likelihood of a market correction (Dhungana et al., 2022).

Availability bias refers to the reliance on readily available information when making investment decisions, often focusing on recent or memorable events. This can distort judgment and lead to less informed choices by giving undue weight to information that may not accurately predict future trends (Rahmawati, 2023). Availability bias can significantly distort judgment, as investors may overlook more relevant, comprehensive data in favor of what comes to mind most easily, even if it's not the most reliable or predictive of future trends. This can lead to less informed and overly cautious investment choices, where the focus is skewed towards avoiding perceived risks rather than pursuing potential opportunities based on thorough analysis. Consequently, availability bias can cause investors to miss out on profitable opportunities or to misjudge the actual risks associated with their investments, ultimately affecting portfolio performance and market stability (Hsu, 2023).

In Nepal's stock market, herding behavior significantly influences market movements, with investors often mimicking others rather than conducting independent analysis. This behavior, which reflects market inefficiency and irrationality, is evident in trends of mass buying and selective selling that cause sharp price fluctuations. For example, in August 2021, the market index hit a historic peak before declining due to negative sentiment, and even poorly rated companies experienced oversubscription, highlighting the impact of herding on market dynamics (Gurung et al., 2024).

The interaction between behavioral biases and investment decisions is complex and essential for crafting strategies to mitigate their adverse effects. In the Nepalese financial market, rising individual participation in financial markets has heightened susceptibility to these biases, leading to suboptimal decisions and market inefficiencies. The limited research on these biases in the region highlights the need for targeted studies to better understand their impact on investment choices. This study seeks to explore the influence of behavioral biases on investment decision making among Nepalese investors. By analyzing the impact of specific biases overconfidence, anchoring, regret aversion, herding, and availability the research will contribute valuable insights into the behavioral dynamics influencing local investors.

1.2 Problem statement

Investment decisions are profoundly influenced by various behavioral biases, which can lead to suboptimal outcomes and market inefficiencies. Despite the critical role these biases play, there is a notable gap in understanding how specific behavioral biases affect investor decisions in Nepalese financial markets. Behavioral biases, such as overconfidence, anchoring, regret aversion, herding, and availability bias, distort investors' judgment and decision making processes, often resulting in excessive risk-taking, reliance on outdated information, avoidance of potentially beneficial choices, imitation of others' actions, and decisions based on easily accessible information rather than comprehensive data (Rahmawati, 2023).

The Nepal Stock Exchange (NEPSE) has exhibited notable volatility, indicating broader market inefficiencies (Merolagani, 2024). This market volatility, coupled with the increased participation of individual investors, suggests that behavioral biases may be influencing investment outcomes and contributing to market instability. Despite a surge in investor engagement, the market remains susceptible to irrational behavior, which can amplify price fluctuations and impact investment decisions. Although existing literature addresses the influence of behavioral biases in various financial markets, there is limited research on their specific effects within the context of Nepalese investors (Dhungana et al., 2022).

Understanding the influence of behavioral biases on investment decisions is crucial for improving investment strategies and financial outcomes. Despite the growing interest in financial markets in Nepal, there is limited empirical research on how specific behavioral biases affect investment decisions in this region. Behavioral biases such as overconfidence, anchoring, regret aversion, herding, and availability are known to distort decision making processes in financial contexts (Gurung et al., 2024)

Overconfidence bias can lead investors to overestimate their abilities and knowledge, resulting in excessive risk-taking and frequent trading (Angote et al., 2021). Anchoring bias causes investors to rely heavily on initial information, potentially distorting their judgment and leading to poor investment decisions (Gupta & Shrivastava, 2021). Regret aversion bias may cause investors to avoid potentially beneficial but risky investments due to fear of future regret, resulting in overly

conservative strategies (Gurung et al., 2024). Herding behavior leads investors to mimic others rather than making independent decisions, which can exacerbate market volatility and lead to irrational investment trends (Dhungana et al., 2022). Availability bias causes investors to focus on readily available information, often ignoring more comprehensive data and leading to less informed decisions (Rahmawati, 2023).

Despite the theoretical understanding of these biases, the extent to which they influence investment decisions in the Nepalese stock market remains unclear. The market has seen increased investor participation, which has heightened the impact of these biases. Thus, it is essential to investigate the prevalence and impact of these biases on local investors. This study seeks to address the following research questions:

- i. Do behavioral biases (overconfidence, anchoring, regret aversion, herding, and availability) prevail among Nepalese investors?
- ii. What is the relationship between different behavioral biases (overconfidence, anchoring, regret aversion, herding, and availability) and investment decisions made by Nepalese investors?
- iii. Does each behavioral bias (overconfidence, anchoring, regret aversion, herding, and availability) have a significant effect on the investment decision making process among Nepalese investors?

1.3 Objective of the study

The main goal of this study is to examine the influence of behavioral biases on investment decision making among Nepalese investors, specifically focusing on overconfidence, anchoring, regret aversion, herding, and availability biases. By investigating these cognitive and emotional factors, the study seeks to offer valuable insights into how these biases shape investment strategies and market behavior. The specific objectives of this study are:

- i. To assess the prevalence of behavioral biases (overconfidence, anchoring, regret aversion, herding, and availability) among Nepalese investors.

- ii. To analyze the relationship between different behavioral biases (overconfidence, anchoring, regret aversion, herding, and availability) and investment decision making among Nepalese investors.
- iii. To examine the effect of each behavioral bias (overconfidence, anchoring, regret aversion, herding, and availability) on investment decision making among Nepalese investors.

1.4 Research hypothesis

A research hypothesis provides a testable prediction about the expected outcomes of a study based on existing theories and knowledge. For this study, the following alternative hypotheses are proposed:

H1: Overconfidence bias has a significant impact on investment decision making among Nepalese investors.

Overconfidence bias involves investors overestimating their own abilities and knowledge, which can lead to excessive risk-taking and frequent trading. Overconfident investors tend to underestimate risks and overestimate their predictive capabilities, often resulting in substantial financial losses (Angote et al., 2021). This hypothesis suggests that Nepalese investors may display similar overconfidence tendencies, leading them to make riskier investment decisions based on inflated self-belief, which in turn could significantly influence their overall investment outcomes.

H2: Anchoring bias significantly affects investment decision making among Nepalese investors.

Anchoring bias occurs when investors give disproportionate weight to the first piece of information they receive, which can skew their subsequent judgments and decisions. This bias may cause investors to rely heavily on outdated or irrelevant data, impairing their ability to make well-informed decisions based on current market conditions (Gupta & Shrivastava, 2021). This hypothesis posits that Nepalese investors might be significantly influenced by initial data or historical prices, leading to distorted investment decisions and potential market inefficiencies.

H3: Regret aversion bias significantly influences investment decision making among Nepalese investors.

Regret aversion bias involves the avoidance of decisions that could lead to feelings of regret. Investors affected by this bias may avoid choices that have potential downsides, even if those choices offer long-term benefits. Individuals with regret aversion bias may adopt overly conservative investment strategies to prevent future regret. This hesitation to take risks can result in missed opportunities and suboptimal returns, as they might avoid beneficial investments due to fear of making the wrong choice (Gurung et al., 2024). This hypothesis suggests that Nepalese investors might exhibit regret aversion, leading to more conservative decision making and potentially missing out on profitable investment opportunities.

H4: Herding bias significantly impacts investment decision making among Nepalese investors

Herding bias is characterized by the tendency of investors to follow the actions of others rather than making decisions based on their own analysis. This behavior often arises from a desire to conform to the majority or follow prevailing market trends. Investors influenced by herding bias may contribute to market bubbles or crashes by collectively moving in the same direction based on others' actions, rather than conducting independent evaluations. This can amplify market fluctuations and lead to irrational investment behavior (Dhungana et al., 2022). This hypothesis posits that Nepalese investors might exhibit herding behavior, leading to collective investment trends that could exacerbate market volatility and result in irrational investment decisions.

H5: Availability bias significantly affects investment decision making among Nepalese investors.

Availability bias occurs when investors make decisions based on the most readily available information rather than seeking a comprehensive set of data. This bias can lead investors to focus on recent or memorable events, which may not be representative of broader trends. Investors influenced by availability bias might rely on prominent or recent information, distorting their judgment and leading to less

informed investment choices. This narrow focus can result in an overemphasis on events that do not accurately predict future trends, increasing the risk of financial losses (Rahmawati, 2023). This hypothesis suggests that Nepalese investors may base their decisions on readily accessible or recent information, potentially leading to poorly informed investment choices and greater financial risk.

1.5 Rationale of the study

The investigation of behavioral biases in investment decision making is crucial for understanding investor behavior and market dynamics, particularly in the context of Nepalese investors. In the evolving financial markets of Nepal, there is a need to explore how biases such as overconfidence, anchoring, regret aversion, herding, and availability influence investment decisions. Despite the increasing participation of individual investors, empirical research in this area remains scarce. This study aims to address this gap by analyzing these biases among Nepalese investors, with the goal of improving investment practices, informing policy, and advancing the field of behavioral finance. The rationale for this study includes:

- i. This study fills the gap in empirical research on behavioral biases affecting investment decisions among Nepalese investors, providing valuable insights into local investment practices that are currently under-researched compared to those in developed markets.
- ii. The findings can assist financial advisors and investment institutions in Nepal in developing strategies to mitigate the effects of biases such as overconfidence and regret aversion, leading to more rational and effective investment decisions.
- iii. By examining the impact of biases like herding and availability, this research contributes to strategies aimed at promoting market stability and efficiency, helping to reduce market volatility and prevent irrational investment behavior.
- iv. The study provides evidence that can inform policymakers in crafting regulations to address the consequences of behavioral biases, such as enhancing market transparency and minimizing the influence of herding behavior to improve market integrity.

- v. This research enriches the academic literature on behavioral finance with empirical evidence from a unique regional perspective, laying the groundwork for further research and theoretical development in investor psychology and behavioral biases.

1.6 Limitations of the study

While this study provides important insights into the influence of behavioral biases on investment decision making, several limitations must be acknowledged. These limitations can impact the generalizability and applicability of the findings, and they highlight areas where caution should be exercised when interpreting the results. The limitations of this study are:

- i. This study is restricted to investors in the Kathmandu Valley, which may not reflect the investment behaviors of individuals in other regions of Nepal or in different countries.
- ii. The study's sample size may be relatively small, which could affect the strength and generalizability of the findings.
- iii. This study utilized convenience sampling for data collection, which may introduce bias and limit the representativeness of the sample, potentially impacting the accuracy of the results.
- iv. The study relies on self-reported data from questionnaires, which may be affected by biases such as social desirability or inaccurate self-assessment, potentially impacting the validity and reliability of the reported behavioral biases.
- v. This study employs a cross-sectional design, capturing data at a single point in time, limiting the ability to track changes in behavioral biases and investment decisions over time.

CHAPTER - II

LITERATURE REVIEW

2.1 Introduction

This chapter examines key theories, models, and empirical studies related to behavioral biases in investment decision making, with a specific focus on Nepalese investors. It provides a structured analysis of existing literature and identifies research gaps that this study aims to address. The chapter is organized into four main sections: theoretical review, conceptual review, empirical review, and research gap.

2.2 Theoretical review

The theoretical review provides a foundation for understanding the behavioral biases that influence investment decision making. It draws from well established theories in behavioral finance and psychology, helping to explain why investors deviate from rational decision making models. Key theories such as Prospect Theory, Behavioral Finance, Efficient Market Hypothesis (EMH), and Modern Portfolio Theory are explored in relation to the biases studied in this research.

Prospect theory

Prospect theory, introduced by Kahneman and Tversky in 1979, offers a significant departure from the traditional expected utility theory by providing a descriptive model of decision making under risk (Barberis, 2013). Unlike expected utility theory, which assumes that individuals make rational choices aimed at maximizing utility, Prospect theory suggests that people are influenced by how options are framed relative to a reference point. This leads to behaviors like loss aversion, where losses are perceived as more significant than equivalent gains, and risk-averse behavior with gains but risk seeking behavior with losses (Levy, 1996). The influence of prospect theory extends beyond economics, impacting fields such as transportation and political science by explaining decisions made under uncertainty and offering insights into deviations from traditional rational choice models (An et al., 2014; McDermott, 2004).

A significant development within prospect theory is the introduction of cumulative prospect theory (CPT), which advances the original framework by applying different weights to cumulative probability distributions rather than treating individual outcomes separately (Votinov et al., 2022). This evolution allows for a more refined

understanding of decision making in situations involving complex risk scenarios. The flexibility of CPT has been demonstrated in various applications, including the integration of decision making models like the technique for order preference by similarity to ideal solution, highlighting the theory's adaptability in assessing criteria across diverse contexts (Su & Sun, 2023).

Prospect theory has provided valuable insights into how individuals evaluate and choose among risky alternatives, contributing substantially to our understanding of decision making processes. By incorporating psychological dimensions such as framing effects and loss aversion, it has enriched the analysis of choices and behaviors that deviate from purely rational models. The theory has proven especially relevant in explaining real-world phenomena in disciplines such as finance, where investor behavior often reflects the biases described by prospect theory.

Overall, the wide-ranging applications of prospect theory across multiple disciplines demonstrate its importance and relevance. Whether in economic decision making, transportation behavior, or political analysis, the theory's capacity to explain deviations from rational decision making has established it as a critical tool for understanding complex human behavior. This relevance is further enhanced by its continued adaptation and integration with other decision making frameworks, ensuring its ongoing significance in both academic research and practical applications.

Behavioral finance theory

Behavioral finance, a subset of behavioral economics, challenges the conventional view of efficient markets and fully rational investors by incorporating psychological elements into financial decision making (Lutzenberger, 2014). It asserts that market participants are not always entirely rational and that their decisions are often shaped by behavioral biases (Shambora & Rossiter, 2007). The field emerged to address the gaps left by traditional theories in explaining various financial anomalies, emphasizing models that account for the psychological factors influencing investor behavior (Valcanover et al., 2020).

Contrary to the traditional finance assumption of investor rationality, behavioral finance argues that psychological factors can lead to deviations from the predictions

of expected utility theory, offering a more comprehensive understanding of financial markets (Holtfort, 2018). By integrating insights from psychology into testable hypotheses, behavioral finance presents a framework to better analyze and interpret investor actions within financial markets (Shambora & Rossiter, 2007). This approach helps explain market inefficiencies and anomalies that traditional economic models fail to account for (Wong, 2021).

Beyond individual investor behavior, behavioral finance also extends to corporate finance, suggesting that managerial decisions can be influenced by irrational tendencies (Brendea & Pop, 2019). This broader application enhances our understanding of how behavioral biases can impact corporate decision making processes, leading to suboptimal financial choices (Hackbarth, 2008). Ultimately, behavioral finance provides a crucial perspective on the intricate relationship between psychology and economics, offering valuable insights into how these dynamics shape financial decisions.

In summary, behavioral finance offers a significant alternative to traditional economic theories by focusing on the psychological influences affecting financial decisions. It not only enhances our comprehension of individual and corporate behavior but also highlights the impact of biases on market inefficiencies. This approach enriches the analysis of financial markets, making it an indispensable tool for understanding the complex interplay between psychological factors and economic decision-making.

Modern portfolio theory (MPT)

Modern portfolio theory (MPT) is a foundational framework in finance developed by Harry Markowitz in the 1950s. It emphasizes the significance of diversification in constructing investment portfolios to optimize the balance between risk and return. MPT advocates that by combining assets with varying risk-return profiles, investors can create portfolios that either maximize returns for a given level of risk or minimize risk for a given return (Markowitz, 1952).

A central component of MPT is the concept of the efficient frontier, which identifies the set of optimal portfolios offering the highest expected return for a specific level of risk or the lowest risk for a given level of return (Zhang, 2022). Investors use the efficient frontier to construct portfolios that lie on this curve, thereby achieving

optimal risk-adjusted returns. Additionally, MPT introduces the capital market line (CML), which illustrates the relationship between risk and return for efficient portfolios and serves as a benchmark for performance evaluation (Solimanpur et al., 2015).

While MPT has been extensively applied in traditional finance, its principles have also been adapted to other fields. For instance, it has been utilized in areas such as digital marketing channel selection and electricity market risk management, demonstrating its versatility beyond conventional investment contexts (Zhang, 2022). The enduring relevance of MPT highlights its critical role in modern financial practices, guiding portfolio selection and asset allocation across various domains.

2.3 Conceptual review

The conceptual review explores the core concepts and constructs related to behavioral biases in investment decision making, specifically focusing on Nepalese investors. This section provides an in-depth understanding of each bias, including overconfidence, anchoring, regret aversion, herding, and availability. It examines the theoretical foundations of these biases and their relevance to investment behavior. By defining and contextualizing these biases within the Nepalese investment landscape, the review lays the groundwork for analyzing their impact on investor decisions in Nepal.

Behavioral bias and investment decision making

Behavioral biases play a crucial role in shaping investment decisions, often leading investors to make choices that stray from rational decision making models. These biases such as overconfidence, anchoring, regret aversion, herding, and availability can cause investors to rely on subjective judgments rather than objective assessments. Overconfidence bias, for instance, leads investors to overestimate their knowledge and abilities, resulting in overly optimistic views of investment opportunities and increased risk-taking (Angote et al., 2021). Anchoring bias occurs when investors become overly fixated on initial information, like past prices or initial investment values, and fail to adjust their decisions based on new data (Gupta & Shrivastava, 2021). Regret aversion, driven by the fear of making decisions that could lead to regret, often leads investors to adopt conservative strategies or hold onto losing

investments to avoid acknowledging a loss (Gurung et al., 2024). Herding bias causes investors to mimic the actions of others, which can contribute to market bubbles or crashes, while availability bias leads investors to base decisions on the most readily available information, which might not always be the most accurate or relevant (Dhungana et al., 2022; Rahmawati, 2023).

Investment decision making, influenced by these behavioral biases, can have a significant impact on an investor's portfolio outcomes. Rather than relying solely on fundamental or technical analysis, investors affected by these biases may make decisions based on emotional or psychological factors, often leading to less-than-optimal results. For example, an overconfident investor may trade more frequently, believing they can outperform the market, but this behavior could lead to higher transaction costs and lower overall returns (Angote et al., 2021). Similarly, an investor driven by regret aversion might avoid selling a losing investment, hoping it will recover, even when the data suggests otherwise (Gurung, 2024). Recognizing the influence of these biases on investment decisions is vital for both individual investors and financial advisors, as it can help in developing strategies to mitigate their impact and promote more rational, data-driven decision making. This study examines these influences among Nepalese investors, offering insights into how behavioral biases shape investment behaviors and decisions in this specific context.

Overconfidence bias and investment decision making

Overconfidence bias refers to the tendency of investors to overestimate their knowledge and abilities, leading to an inflated sense of confidence in their investment decisions. This bias often results in excessive risk taking, as overconfident investors might believe they can predict market movements more accurately than they actually can. Overconfidence can lead to frequent trading and high levels of investment activity, which may not always be justified by actual market conditions. The consequences of overconfidence include higher transaction costs and potentially significant financial losses, as these investors are prone to misjudging their ability to outperform the market (Wibowo et al., 2023).

Additionally, overconfidence bias can distort investors' perception of risk and return. Investors who exhibit overconfidence may underestimate the volatility of their investments, leading to an imbalance between perceived and actual risk. This

misalignment can cause investors to hold onto underperforming stocks or take on excessive risk, further exacerbating the potential for financial loss. The impact of overconfidence extends to market behavior as well, contributing to asset bubbles and increased market volatility when a large number of investors collectively act on overconfident judgments (Wibowo et al., 2023).

Anchoring bias and investment decision making

Anchoring bias involves the reliance on initial information or reference points when making decisions, which can heavily influence subsequent judgments and choices. For instance, an investor who anchors their expectations based on a stock's historical price may fail to adjust their investment strategy in response to changing market conditions or new information. This cognitive bias can lead to persistent misvaluations and delayed reactions to market trends, affecting the investor's decision making process. Anchoring often results in holding onto investments that are no longer viable or failing to capitalize on emerging opportunities (Nkukporu et al., 2020).

The effects of anchoring bias are particularly pronounced in dynamic markets where timely and accurate information is crucial for making informed investment decisions. Investors who fall prey to anchoring may be reluctant to update their assessments or make necessary adjustments based on new evidence, which can lead to suboptimal investment outcomes. By failing to account for evolving market conditions, investors risk making decisions that are misaligned with current realities, ultimately impacting their financial performance (Nkukporu et al., 2020).

Regret aversion bias and investment decision making

Regret aversion bias is characterized by the avoidance of decisions that could potentially lead to future regret, causing investors to be overly cautious. This bias often results in a conservative investment approach, where individuals avoid high-risk opportunities despite their potential benefits. The fear of making a decision that could later be viewed as a mistake leads investors to miss out on profitable opportunities or stick with underperforming investments that feel safer. Regret aversion can cause a preference for maintaining the status quo rather than pursuing potentially more rewarding but riskier options (Gurung et al., 2024).

In the context of investment decision making, regret aversion bias can lead to missed opportunities for higher returns and reduced portfolio growth. Investors influenced by this bias might avoid innovative or emerging sectors due to the potential for regret if those investments do not perform as expected. This reluctance to embrace higher-risk strategies can hinder long-term financial gains and limit the overall effectiveness of an investment portfolio (Gurung et al., 2024).

Herding bias and investment decision making

Herding bias describes the tendency of investors to mimic the actions of others rather than making independent decisions based on their own analyses. This behavior often leads to market phenomena such as bubbles and crashes, as large groups of investors collectively move in the same direction, driven by the actions of their peers rather than objective evaluation. Herding bias can amplify market trends and create volatility, as the collective behavior of investors can lead to excessive buying or selling pressures (Dhungana et al., 2022).

The impact of herding bias on market stability is significant, as it can exacerbate market swings and contribute to irrational price movements. When investors follow the crowd, they may contribute to unsustainable market trends and heightened risk of market corrections. This bias not only affects individual investment decisions but also has broader implications for market efficiency and stability (Dhungana et al., 2022).

Availability bias and investment decision making

Availability bias involves relying on readily accessible information rather than seeking out comprehensive data when making investment decisions. This cognitive shortcut can lead investors to focus on recent or memorable events, which may not be representative of long-term trends or underlying market fundamentals. Availability bias can skew investors' perceptions and lead to decisions that are not fully informed or rational (Rahmawati, 2023).

The influence of availability bias is particularly evident in the context of news-driven market movements or recent events that capture widespread attention. Investors might overreact to recent news or market hype, making decisions based on limited information rather than a thorough analysis. This tendency can result in investment

decisions that are more reactive than strategic, affecting both individual portfolio performance and overall market behavior (Rahmawati, 2023).

2.3 Empirical review

Rehan and Umer (2017) examined the impact of behavioral biases on investor decisions at the Pakistan Stock Exchange. The main objective of the study was to evaluate how cognitive and emotional biases affect investor behavior. Data were collected from 385 active investors using a pre-tested questionnaire, and the analysis included regression techniques. The major findings revealed that anchoring, risk aversion, overconfidence, representativeness, and regret aversion significantly influence investor decisions, while mental accounting and availability biases did not show a statistically significant impact. The study concluded that behavioral biases play a significant role in shaping investor decisions, highlighting the relevance of behavioral finance theories in understanding investment behavior.

Arabadi et al. (2018) examined the effects of behavioral biases on investment performance at the Amman Stock Exchange and investigated whether these biases differ between genders. The primary objective of this study was to analyze the impact of biases such as overconfidence, familiarity, loss aversion, disposition, availability, representativeness, confirmation, and herding on investment outcomes. The researchers used statistical analysis, including regression analysis, to assess the impact of various behavioral biases on investment performance. The major findings revealed significant effects of overconfidence, familiarity, availability, representativeness, and herding biases on investment performance, with disposition, confirmation, and loss aversion biases showing effects at a critical level. The study concluded that behavioral biases significantly impact investment performance, but there are no statistically significant gender differences in the extent of these biases.

Khalid et al. (2018) examined the impact of overconfidence and herding biases on investment decision-making, with a focus on the moderating role of financial literacy. The main objective of the study was to investigate how these biases affect investment decisions and how financial literacy influences this relationship. The research used a sample of 200 participants, including investors, employees, and graduate students, selected through convenience sampling. Data were analyzed using correlation and

regression techniques. The major findings showed that overconfidence and herding biases positively impact investment decision-making, and financial literacy positively influences these decisions by moderating the effects of biases. The study concluded that financial literacy moderates the effects of these biases, providing valuable insights for improving investment decisions through increased financial education.

Aigbovo and Ilaboya (2019) investigated the influence of behavioral biases on individual investment decisions in Nigeria. The main objective of the study was to assess whether behavioral biases, rather than traditional rational finance theories, significantly shape investment decisions among individual investors. The research employed a survey design, utilizing a structured questionnaire administered to 70 respondents from the University of Benin. Data were analyzed through descriptive statistics to assess the influence of behavioral biases on investment decisions. The major findings revealed that while hindsight bias significantly influences investment decisions, other biases such as representativeness, overconfidence, loss aversion, and regret aversion did not have a significant impact. The study concluded that behavioral biases do play an important role in shaping investment decisions and recommended education and training programs to help investors manage these biases and improve their decision-making.

Madaan and Singh (2019) examined the impact of behavioral biases on investment decision making within the National Stock Exchange. The primary objective of the study was to assess how biases such as overconfidence, anchoring, disposition effect, and herding behavior influence individual investment decisions. The research utilized a questionnaire to gather survey responses from 243 investors and applied both inferential and descriptive statistics for data analysis. The findings revealed that overconfidence and herding bias significantly impact investment decisions, while the other biases also affect decision making but to a lesser extent. The study concluded that individual investors are prone to psychological errors due to these biases, which suggests that financial intermediaries should consider these biases when advising clients and that further research could explore additional biases.

Metawa et al. (2019) investigated the impact of behavioral factors on investors' financial decisions in the Egyptian stock market. The primary objective was to

explore how investors' demographic characteristics such as age, gender, education level, and experience affect their investment decisions through mediating behavioral factors including sentiment, overconfidence, overreaction, underreaction, and herd behavior. The study utilized data from 384 investors, analyzed through partial multiple regression to determine the influence of these behavioral factors on investment decisions. The findings revealed that investor sentiment, overreaction, underreaction, overconfidence, and herd behavior significantly impact investment choices, while age, gender, and education level positively influence investment decisions; however, experience did not play a significant role. The study concluded that understanding these behavioral patterns can aid in the growth of the Egyptian stock market and address the research gap in behavioral finance within the Middle East and North African regions.

Bouteska and Regaieg (2020) examined the effects of behavioral biases, specifically loss aversion and overconfidence, on market performance in the US stock markets. The primary objective was to assess how these biases influence the economic performance of companies and market performance in industrial and services sectors. The study employed Ordinary Least Squares (OLS) regression with panel data models, analyzing 6,777 quarterly observations from 2006 to 2016. The findings indicated that loss aversion negatively impacts economic performance across both sectors, while overconfidence has a positive effect on industrial firms' market performance but a negative effect on service firms. The study concluded that overconfidence appears to be a more dominant bias than loss aversion, suggesting that investor behavior, particularly overconfidence, has significant implications for market performance.

Dangol and Manandhar (2020) examined the impact of heuristic biases on investment decisions and the moderating role of locus of control among Nepalese investors. The study main objective was to assess how representativeness, availability, anchoring and adjustment, and overconfidence biases influence the rationality of investment decisions, and how internal locus of control moderates these relationships. The study surveyed 391 respondents using a structured questionnaire. Regression analysis was employed to assess the effects of heuristic biases on investment decisions. The findings indicated a significant relationship between irrational investment decisions

and all four heuristic biases, with locus of control moderating the impact of availability, representativeness, and anchoring biases, but not overconfidence. The study concluded that understanding the moderating role of locus of control can enhance investment decision making processes by addressing specific heuristic biases.

Elhussein and Abdelgadir (2020) investigated the behavioral factors influencing individual investment decisions at the Sudanese Stock Exchange Market. The main objective of this study was to identify and analyze the role of behavioral biases in investment decision making within a developing country stock market. This study utilized cross-sectional survey design, and data were collected from 203 individual investors through a structured questionnaire. Correlation and regression methods were applied for data analysis. The major findings revealed that biases such as representativeness, overconfidence, and anchoring significantly impact investment decisions, while availability bias, regret aversion, and some other factors had minimal impact. The study concluded that behavioral biases are prevalent and influential in investment decisions, regardless of the market's level of development, with heuristic and market factors being particularly dominant.

Sattar et al. (2020) examined how behavioral biases influence investment decision making under uncertainty. The main objective of the study was to explore the impact of various behavioral finance biases, including overconfidence, representativeness, anchoring, regret aversion, hindsight, herding effect, and home bias, on investment choices. The research employed a survey questionnaire to collect data and used regression analysis conducted via SPSS to test the hypotheses. The findings revealed that heuristic behaviors had a more significant impact on investment decisions compared to prospect theory and personality characteristics. The study concluded that understanding and accounting for these psychological factors can greatly benefit investors and financial institutions by improving decision making processes.

Khilar and Singh (2020) conducted a study to examine the role of emotional biases in investment decision making from a behavioral finance perspective. The main objective of the study was to explore how various emotional biases, such as overconfidence, loss-aversion, home bias, and the endowment effect, influence investors' decisions in the Indian context. The study employed a literature review

method, analyzing relevant research papers to provide insights into these biases. The major findings indicate that emotional biases significantly impact investors, often leading to poor investment decisions. The study concludes that understanding and addressing these biases can help investors make more rational and informed decisions.

Kartini and Nahda (2021) investigated the influence of various psychological factors on investment decision making in Indonesia. The main objective of the study was to examine how cognitive biases (anchoring, representativeness, loss aversion, overconfidence, and optimism) and emotional biases (herding behavior) impact investor decisions. The research utilized a quantitative approach, collecting data through a survey method with a snowball sampling technique, resulting in 165 completed questionnaires from individual investors. Data were analyzed using One-Sample t-tests to test the hypotheses. The major findings indicated that all investigated biases anchoring, representativeness, loss aversion, overconfidence, optimism, and herding behavior significantly affect investment decisions. The study concluded that understanding and addressing these behavioral factors can enhance investors' decision making by mitigating the influence of biases.

Adil et al. (2022) investigated the impact of behavioral biases on investment decisions and the moderating role of financial literacy among male and female investors. The main objective of the study was to explore how behavioral biases such as overconfidence, risk-aversion, herding, and disposition influence investment decisions and to assess how financial literacy moderates these relationships among male and female investors. The study utilized a cross-sectional research design with data collected through a structured questionnaire from 253 individual investors. Pearson correlation, Cronbach's alpha, and hierarchical regression analysis were used to analyze the data. The major findings revealed that among male investors, risk-aversion and herding had a negative impact on investment decisions, while overconfidence had a positive effect. For female investors, risk-aversion and herding negatively influenced investment decisions, while overconfidence and disposition had insignificant effects. Financial literacy was found to significantly influence investment decisions and moderated the relationship between overconfidence and investment decisions. The study concluded that enhancing financial literacy can assist

investors in managing behavioral biases and making more informed investment decisions.

Dhungana et al. (2022) examined the effect of cognitive biases on investment decision making in Pokhara Valley, Nepal. The main objective of the study was to assess how five cognitive biases availability, anchoring, overconfidence, herd instinct, and regret aversion affect rational investment decisions. The research utilized primary data collected through non-probability (convenience method) sampling from 179 respondents and employed both descriptive and inferential analyses. The major findings revealed that availability, overconfidence, and herd instinct biases significantly impact irrational investment decisions, with overconfidence having the highest impact and regret aversion having the least effect. The study concluded that addressing these cognitive biases is crucial for improving investment decision making and suggested that investors, brokers, and policymakers should focus on mitigating these biases to enhance market participation and stability.

Jain et al. (2022) conducted a study to develop a comprehensive scale for measuring behavioral biases affecting investors' decision making. The main objective was to create a reliable and valid instrument to assess various behavioral biases influencing investment decisions. The study utilized a multi-stage scale development methodology, including literature review, expert interviews, item generation, pilot testing, and data collection from 332 investors using a 7-point likert scale. The findings identified that behavioral biases are multidimensional and include factors such as availability bias, representativeness bias, overconfidence bias, market factors, herding, anchoring, mental accounting, regret aversion, gamblers' fallacy, and loss aversion. The study concluded by providing a validated scale for measuring these biases, offering a significant tool for researchers and practitioners in behavioral finance.

Syarkani and Alghifari (2022) conducted a study examining the influence of cognitive biases on investor decision making and the moderating role of demographic factors. The main objective was to assess how overconfidence bias and the illusion of control bias affect investment decisions, and how these effects are moderated by age, gender, and education. The study utilized a quantitative approach with data collected through

a 5-point Likert scale questionnaire distributed to 100 individual investors in Bandung, West Java. The major findings include that both overconfidence bias and illusion of control bias significantly impact investor decision-making, with gender moderating the effect of both biases, while age and education only moderate the impact of illusion of control bias. The study concluded that understanding and addressing cognitive biases, along with recognizing their interaction with demographic factors, can help investors make more rational decisions.

Upashi and Kadakol (2023) examined the impact of behavioral biases on investment decision making through a systematic review of literature. The main objective of the study was to explore existing literature on how various behavioral biases influence financial decision making among investors. The researchers used the Systematic Review of Literature (SLR) method, analyzing 32 papers published from 2010 onwards. The major findings revealed that biases like overconfidence, anchoring, loss aversion, and availability bias significantly affect investment decisions. The study concludes by identifying gaps in current research, suggesting that further exploration is needed to understand the interplay between objective and subjective factors in investment decision-making.

Yasmin et al. (2023) investigated the impact of behavioral and psychological biases on investment decisions among individual investors in Bangladesh. The main objective of the study was to identify and analyze how biases such as cognitive dissonance, regret aversion, loss aversion, overconfidence, hindsight, illusion of control, herding instinct, self-attribution, and representativeness affect investors' decision making processes. The research utilized a structured questionnaire and analyzed responses from 196 investors at the Dhaka Stock Exchange using factor analysis. The findings revealed that cognitive dissonance, regret aversion, loss aversion, and illusion of control significantly impact investment decisions, with these biases explaining 55.63% of the variance in the data. The study concluded that investors in Bangladesh exhibit significant irrational behavior influenced by various psychological biases, highlighting the need for awareness and strategies to mitigate these effects.

Gurung et al. (2024) carried out a study to examine the influence of behavioral biases on investment decisions among Nepalese investors. The main objective of the study was to analyze how biases such as overconfidence, representative, anchoring, regret aversion, and herding impact investment decisions in the Nepalese stock market. The research utilized a linear regression model and employed a structured questionnaire with 379 observations to analyze the data. The major findings revealed that overconfidence, anchoring, and regret aversion biases significantly influenced investment decisions, while representative bias had minimal impact, and herding behavior showed no significant relationship with investment choices. The study concluded that behavioral biases significantly affect individual investment decisions in Nepal's financial market, highlighting the need for investors, advisers, and policymakers to address these biases for improved decision making and market stability.

Poudel et al. (2024) examined the impact of behavioral biases on investment decision making among Nepalese investors. The main objective of the study was to investigate how biases such as overconfidence, disposition effect, herding, risk aversion, and financial literacy influence investment decisions. The researchers collected data from 338 respondents using a convenient sampling method and employed descriptive statistics, ANOVA, independent sample t-tests, correlation, and linear regression analysis for data evaluation. The findings indicated that overconfidence, disposition effect, and risk aversion significantly affect investment decisions, while herding did not have a notable impact. The study concluded that enhancing financial literacy can mitigate the effects of these biases, suggesting that policymakers and financial institutions should focus on improving financial literacy to support better investment decisions and providing a foundation for further research into additional biases and moderating factors.

Table 1

Summary of Empirical Review

S.N	Author(s) and Year	Variables	Research Methodology	Major Findings
1	Rehan & Umer	Anchoring, Risk Aversion, Overconfidence,	Regression Analysis	Key biases like anchoring and overconfidence

	(2017)	Representativeness, Regret Aversion, Mental Accounting, Availability		significantly impact investor decisions. Mental accounting and availability biases showed minimal impact.
2	Alrabadi et al. (2018)	Overconfidence, Familiarity, Loss Aversion, Disposition, Availability, Representativeness, Confirmation, Herding	Regression Analysis	Overconfidence, familiarity, availability, and representativeness biases affect investment performance. Disposition and loss aversion have critical effects, but no significant gender differences in bias extent.
3	Khalid et al. (2018)	Overconfidence, Herding, Financial Literacy	Correlation and Regression Analysis	Overconfidence and herding biases impact investment decisions, moderated by financial literacy.
4	Aigbovo & Ilaboya (2019)	Hindsight, Representativeness, Overconfidence, Loss Aversion, Regret Aversion	Descriptive Statistics	Hindsight bias notably influences investment decisions, while other biases showed less impact.
5	Madaan & Singh (2019)	Overconfidence, Anchoring, Disposition Effect, Herding	Inferential and Descriptive Statistics	Overconfidence and herding significantly impact investment decisions; other biases affect less.
6	Metawa et al. (2019)	Sentiment, Overconfidence,	Partial Multiple	Sentiment, overreaction, and herd

		Overreaction, Underreaction, Herd Behavior	Regression	behavior significantly influence investment choices; age and education positively affect decisions.
7	Bouteska & Regaieg (2020)	Loss Aversion, Overconfidence	OLS Regression with Panel Data Models	Loss aversion affects economic performance negatively, while overconfidence positively impacts industrial firms but negatively affects service firms.
8	Dangol & Manandhar (2020)	Representativeness, Availability, Anchoring and Adjustment, Overconfidence, Locus of Control	Regression Analysis	Heuristic biases significantly influence irrational investment decisions. Locus of control moderates some biases' impacts.
9	Elhussein & Abdelgadir (2020)	Representativeness, Overconfidence, Anchoring, Availability, Regret Aversion	Correlation and Regression Analysis	Representativeness, overconfidence, and anchoring biases significantly impact investment decisions; availability and regret aversion have minimal effects.
10	Sattar et al. (2020)	Overconfidence, Representativeness, Anchoring, Regret Aversion, Hindsight, Herding Effect, Home Bias	Regression Analysis	Heuristic behaviors impact investment decisions more significantly than prospect theory and personality traits.
11	Khilar & Singh (2020)	Overconfidence, Loss Aversion, Home Bias, Endowment	Literature Review	Emotional biases significantly affect investment decisions;

		Effect		addressing them can lead to better decision-making.
12	Kartini & Nahda (2021)	Anchoring, Representativeness, Loss Aversion, Overconfidence, Optimism, Herding Behavior	One-Sample t-tests	All biases investigated significantly impact investment decisions. Addressing these biases can improve decision-making.
13	Adil et al. (2022)	Overconfidence, Risk Aversion, Herding, Disposition, Financial Literacy	Pearson Correlation, Cronbach's Alpha, Hierarchical Regression Analysis	Risk aversion and herding negatively impact decisions for men; overconfidence has a positive effect. For women, risk aversion and herding have negative effects, with financial literacy significantly influencing and moderating biases.
14	Dhungana et al. (2022)	Availability, Anchoring, Overconfidence, Herd Instinct, Regret Aversion	Descriptive and Inferential Analysis	Availability, overconfidence, and herd instinct biases notably impact irrational decisions; overconfidence has the greatest impact.
15	Jain et al. (2022)	Availability Bias, Representativeness Bias, Overconfidence Bias, Market Factors, Herding, Anchoring, Mental Accounting, Regret Aversion, Gamblers' Fallacy, Loss Aversion	Scale Development Methodology	Behavioral biases are multidimensional. The developed scale identifies key biases affecting investment decisions.

16	Syarkani & Alghifari (2022)	Overconfidence Bias, Illusion of Control Bias, Age, Gender, Education	Quantitative Approach	Overconfidence and illusion of control biases significantly impact decision-making. Gender moderates the effects of both biases; age and education moderate illusion of control bias.
17	Upashi & Kadakol (2023)	Overconfidence, Anchoring, Loss Aversion, Availability Bias	Systematic Review of Literature (SLR)	Overconfidence, anchoring, loss aversion, and availability biases significantly affect investment decisions. Further exploration is needed on objective vs. subjective factors.
18	Yasmin et al. (2023)	Cognitive Dissonance, Regret Aversion, Loss Aversion, Overconfidence, Hindsight, Illusion of Control, Herding Instinct, Self-Attribution, Representativeness	Factor Analysis	Cognitive dissonance, regret aversion, loss aversion, and illusion of control significantly impact decisions, explaining 55.63% of variance.
19	Gurung et al. (2024)	Overconfidence, Representativeness, Anchoring, Regret Aversion, Herding	Linear Regression	Overconfidence, anchoring, and regret aversion significantly influence investment decisions; representativeness and herding show minimal impact.

20	Poudel et al. (2024)	Overconfidence, Disposition Effect, Herding, Risk Aversion, Financial Literacy	Descriptive Statistics, ANOVA, t-tests, Correlation, Linear Regression	Overconfidence, disposition effect, and risk aversion significantly affect decisions; herding has minimal impact. Financial literacy can mitigate biases.
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2.4 Research gap

Despite considerable global research on behavioral biases and their impact on investment decision-making, there remains a notable gap in the context of Nepalese investors. Internationally, numerous studies have explored how biases such as overconfidence, anchoring, regret aversion, herding, and availability affect investor behavior. For instance, Rehan and Umer (2017) found that biases like overconfidence and anchoring significantly influence investment decisions. Similarly, Khalid et al. (2018) and Madaan and Singh (2019) observed that overconfidence and herding biases are prevalent and impact investor choices. These studies, however, primarily focus on developed markets or specific regions, which may not fully capture the nuances of investment behavior in emerging economies.

In the Nepalese context, recent research by Dhungana et al. (2022) and Gurung et al. (2024) has begun to address the influence of behavioral biases. Dhungana et al. (2022) identified that overconfidence and availability biases notably impact local investors, while Gurung et al. (2024) examined the effects of overconfidence and anchoring. Although these studies provide valuable insights, they tend to focus on individual biases or specific aspects of investor behavior. There is a lack of comprehensive research that integrates multiple biases and explores their combined effects on investment decisions in Nepal.

Furthermore, existing research often addresses biases in isolation or within narrow contexts, leaving a gap in understanding how these biases interact and collectively influence investment behavior. The need for updated and comprehensive studies that reflect the current trends and biases affecting Nepalese investors is evident.

This study aims to fill this gap by examining the effect of overconfidence, anchoring, regret aversion, herding, and availability biases on investment decision making among Nepalese investors. By providing a holistic analysis, this research seeks to offer a deeper understanding of the cognitive and emotional factors shaping investment strategies in Nepal.

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Introduction

This study seeks to examine the effect of behavioral biases on investment decision making among Nepalese investors. To achieve this, a comprehensive research methodology has been developed, encompassing the research design, sampling methods, data collection, analysis techniques, and the research framework. This chapter provides a detailed account of the research design, population and sample, data sources and collection instruments, methods of analysis, and the research framework, culminating in the definition and interrelationship of variables.

3.2 Research design

This study employs a combination of descriptive and casual comparative research designs, complemented by regression analysis, to explore the influence of behavioral biases on investment decision making among Nepalese investors. This methodology aligns with the approach used by Gurung et al. (2024). The descriptive research design systematically profiles and quantifies the prevalence of various behavioral biases such as overconfidence, anchoring, regret aversion, herding, and availability among Nepalese investors. This approach provides a clear overview of how these biases are distributed and manifest within the investor population, offering valuable insights into general behavioral patterns. The causal comparative research design is utilized to examine the relationship between each behavioral bias (independent variables) and investment decision making (dependent variable).

Regression analysis examines the effect of each behavioral bias on investment decisions. This method tests specific hypotheses and determines the extent to which each bias influences investment outcomes. By using regression techniques, the study identifies significant relationships and provides a deeper understanding of how these biases affect decision making processes. Integrating these research designs and analytical methods delivers a comprehensive analysis of behavioral biases and their effects on investment decisions among Nepalese investors.

3.3 Population, sample, and sampling design

As of June 4, 2024, there are 62.82 lakh DEMAT account holders in Nepal, indicating a significant interest in stock trading and Initial Public Offerings (IPOs). Among these, 5,337,702 individuals are registered on the Mero Share platform, with 3,576,498 actively using it (Investopaper, 2024). The population of this study includes all individual investors in Nepal who engage in stock trading and investment activities.

Given the large size of the population, Cochran's (1977) sampling model was employed to determine the appropriate sample size for a large population. The formula used is:

$$n = \frac{z^2 * p (1 - p)}{e^2}$$

Where,

- z represents the z-value corresponding to a 95% confidence level, which is 1.96,
- p denotes the estimated proportion of the attribute in the population, set at 0.5,
- e signifies the desired precision or margin of error, set at 5%.

Substitute the values:

$$n = \frac{1.96^2 \times 0.5 \times (1 - 0.5)}{0.05^2}$$

$$n = 384.16$$

The sample size is rounded to the nearest whole number: approximately 385 ($n \approx 385$). Therefore, the study includes 385 investors as respondents, which is considered adequate to ensure a reliable and valid representation of the broader investor population. For this study, a non-probability convenience sampling design is utilized. This method involves selecting participants who are readily accessible and willing to participate in the research, typically through online investment forums, financial social media groups, and local investment seminars. This approach is adopted due to time and resource constraints, facilitating efficient data collection while managing the study within budgetary limits.

3.4 Nature and sources of data

The study utilizes primary data, collected directly from respondents through structured questionnaires. This approach ensures that the information gathered is specifically tailored to address the research objectives and provides direct insights into the behavioral biases affecting investment decisions among Nepalese investors. The primary data collection involves distributing structured questionnaires to a sample of investors. These questionnaires are meticulously designed to capture relevant information on key behavioral biases, including overconfidence, anchoring, regret aversion, herding, and availability. By focusing on these specific biases, the study aims to gather detailed and relevant data on how these factors influence investment decision making processes.

In addition to primary data, secondary data is utilized for the literature review, providing a foundation for understanding existing research and theoretical frameworks related to behavioral biases in investment decisions. This secondary data includes academic journal articles, previous research studies, and relevant publications that offer insights into the historical context and empirical findings related to the effect of behavioral biases on investment decisions. By reviewing secondary sources, the study ensures a comprehensive understanding of the topic and situates its findings within the broader academic discourse.

3.5. Instrument of data collection

The primary data collection instrument for this study is a structured questionnaire, meticulously designed to capture detailed insights into the effect of behavioral biases on investment decision making among Nepalese investors. The questionnaire is segmented into three distinct sections, each targeting a specific aspect of the research objectives.

The first section gathers demographic information, including age, gender, educational background, occupation, and investment experience. This information is crucial for understanding the demographic profile of the respondents and for segmenting the data based on various demographic factors.

The second section focuses on behavioral biases. This part of the questionnaire includes statements that assess five key biases: overconfidence, anchoring, regret

aversion, herding, and availability. Respondents are asked to rate their agreement with each statement on a five-point Likert scale, where 1 represents "Strongly Disagree" and 5 represents "Strongly Agree." This section aims to measure the extent to which each bias influences the respondents' investment decisions.

The third section evaluates investment decision making. It includes statements related to how behavioral biases affect investment choices. Similar to the second section, respondents rate their agreement with each statement using the same five-point Likert scale. This section is designed to link behavioral biases directly to investment decision making processes, providing a clear picture of how these biases impact investor behavior.

In order to collect comprehensive data, 385 questionnaires were distributed to respondents by visiting different broker houses, engaging with a diverse investor base. The questionnaires were distributed in both online and printed formats. The online version was circulated via email and social media platforms to reach a broader audience and make it easier for people to respond. The printed copies were given directly to selected participants, especially those with limited access to digital platforms. This dual approach was designed to improve response rates and gather a diverse range of views from participants.

By employing a structured questionnaire with a five-point Likert scale and utilizing both online and printed distribution methods, the study ensures systematic data collection and accessibility. This approach facilitates the gathering of quantifiable data that will be used to assess the relationships between behavioral biases and investment decisions, and to derive actionable insights for understanding investor behavior of investors.

3.6. Reliability analysis

Reliability analysis is a crucial aspect of research methodology, ensuring the consistency and dependability of the measurement instrument used in this study. For this research, the reliability of the structured questionnaire is evaluated using Cronbach's alpha, a statistical measure that assesses the internal consistency of the questionnaire items (Cronbach, 1951). Cronbach's alpha coefficient ranges from 0 to 1, where higher values indicate greater reliability. A commonly accepted threshold for

acceptable reliability is a Cronbach's alpha of 0.7 or above (Nunnally & Bernstein, 1994). To conduct the reliability analysis, data collected from the completed questionnaires are entered into statistical software such as SPSS.

Table 2

Reliability Statistics

Variables	Cronbach's Alpha	No of Items
Overconfidence Bias	.870	4
Anchoring Bias	.821	4
Regret Aversion Bias	.870	4
Herding Bias	.820	4
Availability Bias	.837	4

Source: SPSS Output, 2024

Table 2 presents the reliability statistics for the various biases assessed in the study. The Cronbach's alpha values indicate the internal consistency of the scales used to measure each type of bias. For overconfidence bias, a Cronbach's alpha of 0.870 demonstrates a high level of reliability, showing that the four items used are consistently measuring this construct. Similarly, anchoring bias has a Cronbach's alpha of 0.821, reflecting strong internal consistency for its four items. The regret aversion bias scale also shows excellent reliability with a Cronbach's alpha of 0.870, indicating that the items are reliably assessing this bias. Herding bias has a Cronbach's alpha of 0.820, suggesting robust consistency among the four items used to measure this construct. Lastly, availability bias exhibits a Cronbach's alpha of 0.837, indicating good reliability for the scale. Overall, the high Cronbach's alpha values across all variables (all above 0.80) confirm that the scales used are reliable and provide consistent results, supporting the validity of the study's findings.

3.7 Methods of analysis

The analysis for this study employs a multi-faceted approach to thoroughly examine the effect of behavioral biases on investment decision making among investors in Kathmandu Valley. The analysis integrates both descriptive and inferential statistical methods to ensure a comprehensive understanding of the data collected using Ms-Excel and SPSS.

Descriptive statistics

Descriptive statistics have been used to summarize and describe the data collected from the questionnaires. Frequency analysis has been conducted using MS Excel and SPSS to count how often each response category is selected. This process involved generating frequency distributions that reveal common trends among the respondents. The mean values for each variable were computed using both MS Excel and SPSS to determine the central tendency of the responses regarding behavioral biases and investment decision making. Standard deviations were also calculated to measure the dispersion or variability around the mean, providing insights into how responses were spread out

Inferential analysis

Inferential statistics were applied to draw conclusions about the relationships between variables and to test hypotheses. Pearson's correlation analysis was performed using SPSS to determine the strength and direction of relationships between behavioral biases and investment decision-making. This analysis showed how closely changes in one variable were related to changes in another. ANOVA was conducted with SPSS to compare the means of investment decision making scores across different levels of behavioral biases. This method identified statistically significant differences between groups and assessed the effect of different biases. Multiple regression analysis was used to examine the effects of each behavioral bias on investment decision-making, incorporating all independent variables and the dependent variable. SPSS provided regression coefficients and R-squared values to evaluate the significance and strength of these relationships.

Correlation analysis

Correlation analysis was conducted to examine the strength and direction of relationships between behavioral biases and investment decision making among Nepalese investors. This analysis aimed to identify how variations in one variable, such as overconfidence or anchoring, relate to changes in investment decision-making. By calculating Pearson's correlation coefficients using SPSS, the study determined the degree to which these biases are associated with investment behaviors.

The correlation coefficient, ranging from -1 to +1, provided insights into whether a positive, negative, or no linear relationship existed between the variables.

The procedure involved preparing the dataset in SPSS, ensuring that all data were accurately entered and cleaned. Pearson's correlation coefficient was computed for each pair of variables, including behavioral biases and investment decision-making. The SPSS output included correlation coefficients and p-values, which were used to assess the strength of the relationships and their statistical significance. The output from SPSS included correlation coefficients, p-values, and significance levels. Correlation coefficients were interpreted to determine the strength and direction of the relationships:

- **Strong Positive Correlation:** Values close to +1, indicating that as one variable increases, the other variable also tends to increase.
- **Strong Negative Correlation:** Values close to -1, indicating that as one variable increases, the other variable tends to decrease.
- **No Significant Correlation:** Values close to 0, indicating little to no linear relationship.

Regression analysis

Regression analysis was utilized to evaluate the influence of various behavioral biases on investment decision making among Nepalese investors. The analysis employed SPSS to conduct the regression models, which included several key components: model summary, ANOVA, and coefficient analysis. Each of these components contributed to a thorough understanding of how behavioral biases affected investment decisions.

The model summary provided an overview of the regression model's performance. It included the R-squared value, which indicated the proportion of variance in investment decision making explained by the behavioral biases included in the model. A high R-squared value suggested that the model explained a significant portion of the variability in investment decisions, reflecting the effectiveness of the chosen predictors. Additionally, the Adjusted R-squared value was considered to account for the number of predictors in the model, providing a more accurate measure of model fit.

The ANOVA (Analysis of Variance) was used to assess the overall significance of the regression model. It evaluated whether the model explained a statistically significant portion of the variance in investment decision-making. The F-statistic and its associated p-value were examined to determine if the regression model, as a whole, significantly predicted the dependent variable. A significant p-value indicated that the model was reliable in explaining investment decisions, justifying the inclusion of the predictors in the analysis.

Coefficient analysis involved examining the individual impact of each behavioral bias on investment decision-making. This included reviewing the regression coefficients for each independent variable, which indicated the direction and strength of the relationship between the biases and investment decisions. The significance of these coefficients was tested using t-tests, and p-values were reported to determine whether each bias had a statistically significant effect on investment decision-making. This detailed analysis allowed for the identification of which biases had the most substantial impact and provided insights into their relative importance in influencing investment behavior.

Regression equation

The regression equation used in the analysis can be expressed as:

$$\text{Investment Decision-Making} = \beta_0 + \beta_1(\text{Overconfidence Bias}) + \beta_2(\text{Anchoring Bias}) + \beta_3(\text{Regret Aversion Bias}) + \beta_4(\text{Herding Bias}) + \beta_5(\text{Availability Bias}) + \epsilon$$

Where:

- Investment Decision making is the dependent variable representing the investment decisions of individuals.
- β_0 is the intercept term, representing the baseline level of the dependent variable when all independent variables are zero.
- $\beta_1, \beta_2, \beta_3, \beta_4$, and β_5 are the coefficients for the independent variables: Overconfidence Bias, Anchoring Bias, Regret Aversion Bias, Herding Bias, and Availability Bias, respectively. These coefficients measure the impact of each behavioral bias on investment decision-making.
- ϵ represents the error term, capturing the variability in the dependent variable that is not explained by the independent variables.

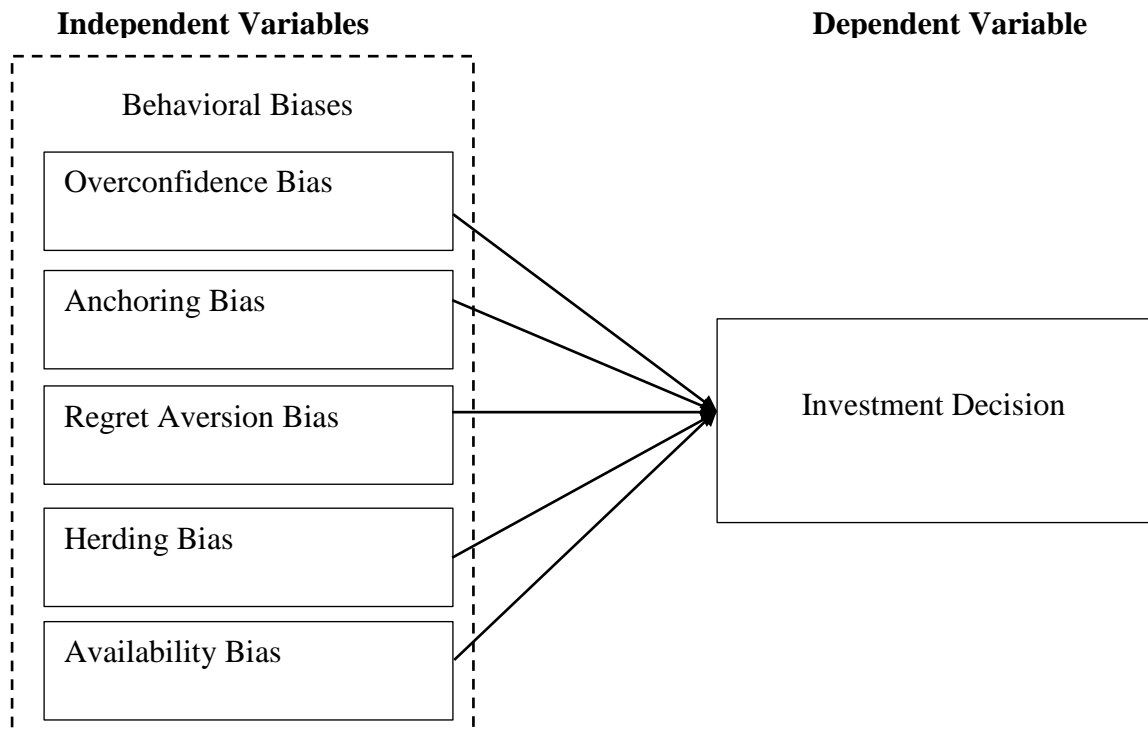
3.8 Research framework and definition of variables

The research framework for this study investigates the effect of various behavioral biases on investment decision making among Nepalese investors. It outlines the relationships between five independent variables, which are behavioral biases, and the dependent variable, investment decision making.

The framework identifies five key behavioral biases as independent variables: Overconfidence Bias, Anchoring Bias, Regret Aversion Bias, Herding Bias, and Availability Bias. Each of these biases is hypothesized to influence investment decision-making, which is the dependent variable. The framework suggests that these biases individually and collectively affect how investors perceive risks and opportunities and ultimately make investment decisions. By analyzing these relationships, the study aims to understand the extent and nature of these influences on investment behaviors among Nepalese investors.

The research framework adopted for this study is based on Dhungana et al. (2022), who explored the effect of cognitive biases on investment decision making in Pokhara Valley, Nepal. This framework conceptualizes how behavioral biases impact investment decisions, focusing on the influence of these biases on investor behavior and decision making processes. The goal is to empirically validate these relationships and provide insights into how these biases shape investment choices among Nepalese investors.

Figure 1

Conceptual Framework of the Study

(Source: Dhungana et al., 2022)

Definition of variables

A. Independent Variables (IVs)

Overconfidence Bias

Overconfidence bias refers to the propensity of investors to overestimate their own skills, knowledge, and ability to predict market movements. This cognitive bias often leads investors to take excessive risks, as they believe their forecasts and judgments are more accurate than they actually are. Overconfident investors may engage in more frequent trading and make investment choices that are not fully informed, potentially resulting in higher losses due to their inflated self-perceptions and overestimation of their capabilities (Angote et al., 2021).

Anchoring Bias

Anchoring bias is a cognitive distortion where investors heavily rely on the first piece of information they encounter when making investment decisions, even if it is outdated or irrelevant. This initial reference point, or "anchor," can skew their judgment, causing them to make decisions based on this anchor rather than integrating new, more pertinent information. For instance, if an investor anchors on an asset's

historical price, they might ignore current market conditions that suggest a different valuation, leading to less informed and potentially flawed investment choices (Gupta & Shrivastava, 2021).

Regret Aversion Bias

Regret aversion bias is characterized by the fear of making decisions that could lead to future regret. Investors affected by this bias may avoid making investment choices that involve any risk, even if such choices could be beneficial. This fear can lead to a conservative investment strategy, where investors forego opportunities for potential gains to avoid the possibility of regretting their decisions later. This cautious approach can limit their ability to achieve optimal returns and fully benefit from investment opportunities (Gurung, 2024).

Herding Bias

Herding bias involves the tendency of investors to follow the actions and decisions of others rather than making independent evaluations. This behavior is often driven by the assumption that others have superior information or are making the right choices. Herding can lead to market phenomena such as bubbles and crashes, as large numbers of investors move in the same direction, amplifying market trends and contributing to increased volatility and irrational market behavior (Dhungana et al., 2022).

Availability Bias

Availability bias refers to the tendency of investors to base their decisions on information that is most readily available or memorable, rather than seeking out comprehensive or objective data. This bias causes individuals to give disproportionate weight to recent or vivid events, which may not be representative of the overall situation. For example, if an investor recently experienced a market downturn, they might overemphasize this recent negative experience and avoid making investments, even if the long-term outlook is positive. This bias can limit an investor's perspective and lead to decisions that are not fully informed (Rahmawati, 2023).

B. Dependent Variable (DV)

Investment Decision

Investment decision making involves the process through which investors evaluate and select investment opportunities based on their financial goals, risk tolerance, and available information. This process encompasses assessing potential returns and risks,

analyzing market conditions, and interpreting relevant data to make informed choices. Behavioral biases, such as overconfidence and anchoring, can distort this decision making process by influencing how investors perceive risks and opportunities, potentially leading to suboptimal investment outcomes. Effective investment decision making thus requires careful consideration of both cognitive biases and rational financial principles to optimize investment choices (Fama & French, 2004).

CHAPTER - IV

RESULT AND DISCUSSION

4.1 Introduction

This chapter presents the results of the study, focusing on the analysis of data to address the research questions and test the hypotheses outlined earlier. The aim is to examine the influence of behavioral biases specifically overconfidence, anchoring, regret aversion, herding, and availability on investment decision making among Nepalese investors. The chapter includes descriptive and inferential statistics, hypothesis testing, and a discussion of the findings in the context of relevant theories and empirical studies.

4.2 Descriptive statistics

The purpose of this section is to provide an overview of the data collected in the study, offering insights into the demographic characteristics of the respondents and summarizing the key variables involved. Descriptive statistics help to establish a foundation for further analysis by highlighting the central tendencies, dispersions, and distributions of the variables of interest. This section is organized into two subsections: the demographic profile of respondents and the descriptive analysis of key variables.

4.2.1 Demographic profile of respondents

This subsection provides a detailed summary of the demographic characteristics of the respondents involved in the study, including frequency and percentage analysis. Understanding the demographic profile is essential as it offers context for interpreting the results and ensures that the sample is representative of the population under study. The demographic variables considered include age, gender, education level, income level, investment experience, type of investment, and investment amount.

Table 3
Demographic Profile of Respondents

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	220	57.1%
	Female	165	42.9%
	Total	385	100%
Age Group	Below 25	50	13.0%
	25 to 35	140	36.4%
	36 to 45	110	28.6%
	46 to 55	60	15.6%
	Above 55	25	6.5%
	Total	385	100%
Marital Status	Unmarried	220	57.1%
	Married	165	42.9%
	Total	385	100%
Educational Qualification	Below SLC	30	7.8%
	SLC	50	13.0%
	Intermediate or +2	80	20.8%
	Bachelor's Degree	140	36.4%
	Master's Degree	70	18.2%
	Above Master's	15	3.9%
Total	385	100%	
Current Occupation	Student	60	15.6%
	Employed (Private Sector)	150	39.0%
	Employed (Public Sector)	50	13.0%
	Self-Employed	55	14.3%
	Business Owner	35	9.1%
	Retired	20	5.2%
	Other (Please specify)	15	3.9%
Total	385	100%	
Income Level (Annually)	Below NPR 5,00,000	40	10.4%
	NPR 5,00,000 - NPR 10,00,000	110	28.6%
	NPR 10,00,000 - NPR 15,00,000	120	31.2%

Demographic Variable	Category	Frequency	Percentage (%)
	NPR 15,00,000 - NPR 20,00,000	75	19.5%
	Above NPR 20,00,000	40	10.4%
	Total	385	100%
Investment Experience	Less than 1 year	30	7.8%
	1-3 years	100	26.0%
	4-6 years	120	31.2%
	7-10 years	90	23.4%
	More than 10 years	45	11.7%
	Total	385	100%
Primary Investment Type	Stocks	150	39.0%
	Mutual Funds	85	22.1%
	Bonds	60	15.6%
	Real Estate	45	11.7%
	Other (Please specify)	45	11.7%
	Total	385	100%
Frequency of Investment	Daily	20	5.2%
	Weekly	70	18.2%
	Monthly	160	41.6%
	Quarterly	90	23.4%
	Annually	45	11.7%
	Total	385	100%
Average Investment Amount (in NPR)	Below 50,000	35	9.1%
	50,000-100,000	100	26.0%
	100,000-500,000	160	41.6%
	500,000-1,000,000	60	15.6%
	Above 1,000,000	30	7.8%
	Total	385	100%

Source: Field Survey, 2024

Table 3 presents a detailed summary of the demographic characteristics of the respondents participating in the study, based on the frequency and percentage analysis. Understanding the demographic profile is crucial as it offers context for

interpreting the study results and ensures that the sample is representative of the population under investigation.

The gender distribution among respondents shows that 57.1% are male (220 individuals) and 42.9% are female (165 individuals), indicating a reasonably balanced representation of both genders. The age distribution reveals that 13.0% of respondents are below 25 years old (50 individuals), 36.4% are between 25 to 35 years (140 individuals), 28.6% are between 36 to 45 years (110 individuals), 15.6% are between 46 to 55 years (60 individuals), and 6.5% are above 55 years (25 individuals). This range highlights the diversity in age among the participants.

Regarding marital status, 57.1% of respondents are unmarried (220 individuals), while 42.9% are married (165 individuals), reflecting a mix of marital statuses. Educational qualifications vary among respondents, with 7.8% having education below SLC (30 individuals), 13.0% having SLC certificates (50 individuals), 20.8% having completed Intermediate or +2 (80 individuals), 36.4% holding a Bachelor's Degree (140 individuals), 18.2% having a Master's Degree (70 individuals), and 3.9% having education beyond Master's (15 individuals). This diverse educational profile provides a broad view of the respondents' academic backgrounds.

In terms of current occupation, 15.6% of respondents are students (60 individuals), 39.0% are employed in the private sector (150 individuals), 13.0% work in the public sector (50 individuals), 14.3% are self-employed (55 individuals), 9.1% are business owners (35 individuals), 5.2% are retired (20 individuals), and 3.9% are involved in other roles (15 individuals). The income levels of respondents show that 10.4% earn below NPR 5,00,000 annually (40 individuals), 28.6% earn between NPR 5,00,000 and NPR 10,00,000 (110 individuals), 31.2% earn between NPR 10,00,000 and NPR 15,00,000 (120 individuals), 19.5% earn between NPR 15,00,000 and NPR 20,00,000 (75 individuals), and 10.4% earn above NPR 20,00,000 (40 individuals).

The investment experience among respondents varies, with 7.8% having less than 1 year of experience (30 individuals), 26.0% having 1-3 years of experience (100 individuals), 31.2% having 4-6 years (120 individuals), 23.4% having 7-10 years (90 individuals), and 11.7% having more than 10 years (45 individuals). Regarding the primary type of investment, 39.0% of respondents invest in stocks (150 individuals), 22.1% invest in mutual funds (85 individuals), 15.6% invest in bonds (60 individuals),

11.7% invest in real estate (45 individuals), and 11.7% invest in other types of assets (45 individuals).

The frequency of investment varies, with 5.2% investing daily (20 individuals), 18.2% weekly (70 individuals), 41.6% monthly (160 individuals), 23.4% quarterly (90 individuals), and 11.7% annually (45 individuals). Finally, the average investment amounts are distributed as follows: 9.1% invest below NPR 50,000 (35 individuals), 26.0% invest between NPR 50,000 and NPR 100,000 (100 individuals), 41.6% invest between NPR 100,000 and NPR 500,000 (160 individuals), 15.6% invest between NPR 500,000 and NPR 1,000,000 (60 individuals), and 7.8% invest above NPR 1,000,000 (30 individuals).

4.2.2 Descriptive analysis of variables

This subsection provides a statistical summary of the key variables in the study, focusing on the behavioral biases (overconfidence, anchoring, regret aversion, herding, and availability) and investment decision-making. Descriptive statistics such as mean, standard deviation, minimum, and maximum values are presented for each variable.

Table 4

Descriptive Statistics of Overconfidence Bias

Statements	N	Min	Max	Mean	Std. Deviation
1. I often believe that my investment decisions are better than those of others.	385	2	5	3.89	.682
2. I tend to underestimate the risks associated with my investments.	385	2	5	3.84	.702
3. I frequently feel that my investment knowledge is superior to that of others.	385	2	5	3.85	.690
4. I am confident in my ability to predict market movements accurately.	385	2	5	3.80	.763
Overconfidence Bias	385	2.25	5.00	3.8468	.60183

Source: SPSS Output

Table 4 shows the descriptive statistics of overconfidence bias among respondents. The statement "I often believe that my investment decisions are better than those of others" has a mean score of 3.89 and a standard deviation of 0.682, reflecting a strong

general agreement with this belief, though there is some variability. For the statement "I tend to underestimate the risks associated with my investments," the mean is 3.84 with a standard deviation of 0.702, indicating a moderate tendency to downplay risks. The mean score for "I frequently feel that my investment knowledge is superior to that of others" is 3.85 with a standard deviation of 0.690, suggesting respondents generally feel their knowledge is superior, with slight variation. The statement "I am confident in my ability to predict market movements accurately" has a mean score of 3.80 and a standard deviation of 0.763, showing moderate confidence in predictive abilities and relatively higher variability. Overall, the Overconfidence Bias measure has a mean score of 3.85 and a standard deviation of 0.602, indicating a moderate level of overconfidence with relatively consistent responses.

Table 5

Descriptive Statistics of Anchoring Bias

Statements	N	Min	Max	Mean	Std. Deviation
5. I base my investment decisions on past stock prices.	385	1	5	3.77	.946
6. I often fixate on the initial price at which I bought an investment.	385	1	5	3.34	1.002
7. I use historical data as a primary factor in my investment decisions.	385	1	5	3.66	.852
8. I find it difficult to adjust my expectations after a significant change in market conditions.	385	1	5	3.79	.842
Anchoring Bias	385	1.75	5.00	3.6377	.73634

Source: SPSS Output

Table 5 presents the descriptive statistics for anchoring bias among respondents in this study on the effect of behavioral biases on investment decision making among Nepalese investors. The statement "I base my investment decisions on past stock prices" has a mean score of 3.77 with a standard deviation of 0.946, indicating a moderate tendency among investors to rely on historical stock prices when making investment choices. The mean score of 3.34 and standard deviation of 1.002 for the

statement "I often fixate on the initial price at which I bought an investment" suggests a moderate level of fixation on initial purchase prices, with considerable variability in responses. For the statement "I use historical data as a primary factor in my investment decisions," the mean is 3.66 and the standard deviation is 0.852, reflecting a general reliance on historical data while showing some variability in its importance. The statement "I find it difficult to adjust my expectations after a significant change in market conditions" has a mean score of 3.79 with a standard deviation of 0.842, indicating that investors often struggle to adjust their expectations following market changes. Overall, the mean score for Anchoring Bias is 3.64 with a standard deviation of 0.736, suggesting a moderate tendency to anchor investment decisions to past information, with a relatively consistent pattern among respondents.

Table 6

Descriptive Statistics of Regret Aversion Bias

Statements	N	Min	Max	Mean	Std. Deviation
9. I avoid selling investments at a loss to prevent feeling regret.	385	2	5	3.67	.751
10. I prefer to hold on to losing investments rather than realizing a loss.	385	1	5	3.61	.717
11. I often second-guess my investment decisions to avoid regret.	385	2	5	3.73	.774
12. I feel uncomfortable making changes to my investment portfolio after experiencing losses.	385	2	5	3.75	.746
Regret Aversion Bias	385	2.00	5.00	3.6922	.63410

Source: SPSS Output

Table 6 presents the descriptive statistics for regret aversion bias among respondents in this study on the effect of behavioral biases on investment decision making among Nepalese investors. The statement "I avoid selling investments at a loss to prevent feeling regret" has a mean score of 3.67 with a standard deviation of 0.751, indicating that respondents generally avoid realizing losses to prevent regret, though there is some variability in their responses. For the statement "I prefer to hold on to losing

investments rather than realizing a loss," the mean score is 3.61 with a standard deviation of 0.717, reflecting a tendency to retain losing investments, with a moderate level of variability. The statement "I often second-guess my investment decisions to avoid regret" shows a mean of 3.73 and a standard deviation of 0.774, suggesting that respondents frequently re-evaluate their decisions to avoid future regret. The statement "I feel uncomfortable making changes to my investment portfolio after experiencing losses" has a mean score of 3.75 with a standard deviation of 0.746, indicating discomfort with portfolio adjustments following losses. Overall, the mean score for Regret Aversion Bias is 3.69 with a standard deviation of 0.634, demonstrating a moderate level of regret aversion among respondents, with relatively consistent responses.

Table 7

Descriptive Statistics of Herding Bias

Statements	N	Min	Max	Mean	Std. Deviation
13. I tend to follow the investment choices of my friends and family.	385	1	5	4.15	.854
14. I often invest in popular stocks that others are investing in.	385	2	5	4.13	.773
15. I am influenced by market trends and the behavior of other investors.	385	2	5	4.01	.795
16. I feel compelled to invest in assets that are currently being heavily promoted	385	1	5	4.17	.765
Herding Bias	385	2.25	5.00	4.1149	.64242

Source: SPSS Output

Table 7 presents the descriptive statistics for herding bias among respondents. The statement "I tend to follow the investment choices of my friends and family" has a mean score of 4.15 with a standard deviation of 0.854, indicating a strong tendency among respondents to align their investment decisions with those of their social circle. Similarly, the statement "I often invest in popular stocks that others are investing in" shows a mean of 4.13 and a standard deviation of 0.773, reflecting a substantial inclination to invest in trending stocks based on others' actions. The statement "I am

influenced by market trends and the behavior of other investors" has a mean score of 4.01 with a standard deviation of 0.795, demonstrating that market trends and the behavior of other investors significantly impact respondents' investment decisions. The statement "I feel compelled to invest in assets that are currently being heavily promoted" shows a mean score of 4.17 and a standard deviation of 0.765, indicating a strong influence of promotional activities on investment choices. Overall, the mean score for Herding Bias is 4.11 with a standard deviation of 0.642, highlighting a pronounced tendency for respondents to follow others' investment behavior, with relatively consistent responses among Nepalese investors.

Table 8

Descriptive Statistics of Availability Bias

Statements	N	Min	Max	Mean	Std. Deviation
17. I rely on recent news and events when making investment decisions.	385	2	5	4.21	.758
18. I am more likely to invest in stocks that I frequently hear about in the media.	385	2	5	4.03	.780
19. I make decisions based on readily available information rather than thorough analysis.	385	2	5	4.16	.781
20. I give more weight to information that is easy to recall or recent.	385	2	5	4.07	.764
Availability Bias	385	2.25	5.00	4.1162	.63171

Source: SPSS Output

Table 8 shows the descriptive statistics for availability bias among the study participants. This table illustrates how different aspects of readily accessible information affect investment decisions. The statement "I rely on recent news and events when making investment decisions" has the highest mean score of 4.21 with a standard deviation of 0.758, indicating that respondents place significant importance on recent news and events. Similarly, "I am more likely to invest in stocks that I frequently hear about in the media" has a mean score of 4.03 and a standard deviation of 0.780, showing a strong influence of media coverage on investment choices. The statement "I make decisions based on readily available information rather than

thorough analysis" has a mean of 4.16 with a standard deviation of 0.781, reflecting a tendency to prioritize easily accessible information over detailed analysis. Lastly, "I give more weight to information that is easy to recall or recent" has a mean of 4.07 and a standard deviation of 0.764, indicating that easily recalled or recent information significantly impacts decision-making. Overall, the mean score for Availability Bias is 4.12 with a standard deviation of 0.632, revealing that respondents are strongly influenced by information that is readily available and recent.

Table 9

Descriptive Statistics of Investment Decision Making

Statements	N	Min	Max	Mean	Std. Deviation
21. My investment decisions are heavily influenced by my own biases.	385	2	5	4.24	.759
22. I often evaluate my investment choices based on personal feelings rather than objective data.	385	2	5	4.15	.763
23. I believe that my investment strategies are affected by behavioral biases such as overconfidence and regret aversion.	385	1	5	4.24	.806
24. I frequently review and adjust my investment decisions based on the influence of market trends and peer behavior.	385	2	5	4.15	.842
Investment Decision Making	385	2.25	5.00	4.1942	.68332

Source: SPSS Output

Table 9 presents the descriptive statistics for investment decision making among the respondents. The statement "My investment decisions are heavily influenced by my own biases" has a mean score of 4.24 with a standard deviation of 0.759, indicating that respondents recognize a significant impact of their own biases on their investment decisions. The statement "I often evaluate my investment choices based on personal feelings rather than objective data" has a mean of 4.15 and a standard deviation of 0.763, showing that personal feelings often play a role in evaluating investment decisions. Similarly, "I believe that my investment strategies are affected by behavioral biases such as overconfidence and regret aversion" has a mean score of

4.24 with a standard deviation of 0.806, reflecting the respondents' awareness of the influence of biases like overconfidence and regret aversion on their strategies. Finally, the statement "I frequently review and adjust my investment decisions based on the influence of market trends and peer behavior" has a mean of 4.15 with a standard deviation of 0.842, demonstrating that market trends and peer behavior significantly affect how respondents adjust their investment choices. Overall, the mean score for investment decision making is 4.19 with a standard deviation of 0.683, indicating a high level of influence from personal biases and external factors on investment decisions.

Table 10

Descriptive Statistics Summary

Variables	N	Min	Max	Mean	Std. Deviation
Availability Bias	385	2.25	5.00	4.1162	.63171
Herding Bias	385	2.25	5.00	4.1149	.64242
Regret Aversion Bias	385	2.00	5.00	3.6922	.63410
Anchoring Bias	385	1.75	5.00	3.6377	.73634
Overconfidence Bias	385	2.25	5.00	3.8468	.60183
Investment Decision Making	385	2.25	5.00	4.1942	.68332

Table 10 provides a summary of the descriptive statistics for the key variables in the study, including various biases and investment decision making. The table shows that availability bias has a mean score of 4.1162 with a standard deviation of 0.63171, indicating that respondents are strongly influenced by readily available information when making investment decisions. Herding bias has a mean of 4.1149 and a standard deviation of 0.64242, suggesting a high tendency among respondents to follow the behavior of others in their investment choices.

Regret aversion bias has a mean score of 3.6922 with a standard deviation of 0.63410, reflecting a moderate level of regret aversion impacting decision-making. Anchoring bias has a mean of 3.6377 and a standard deviation of 0.73634, showing that respondents somewhat rely on initial information when making investment decisions.

Overconfidence Bias scores a mean of 3.8468 with a standard deviation of 0.60183, indicating that respondents often exhibit overconfidence in their investment decisions.

Finally, investment decision making has a mean of 4.1942 and a standard deviation of 0.68332, demonstrating that respondents generally experience a high level of influence from biases on their investment choices. In conclusion, the study highlights that behavioral biases play a crucial role in shaping investment decisions in Nepal.

4.3 Inferential statistics

Inferential statistics in this study employ correlation and regression analyses to explore the relationships between behavioral biases and investment decision-making. Correlation analysis assesses the strength and direction of the association between biases like overconfidence, anchoring, regret aversion, herding, and availability with investment decisions, indicating how these biases are related. Regression analysis further quantifies the impact of each bias on investment decision making by estimating how much each bias contributes to changes in investment behavior, controlling for the influence of other biases. Together, these analyses provide a comprehensive understanding of how behavioral biases affect investment decision making among Nepalese investors.

4.3.1 Correlation analysis

Correlation analysis is used to determine the strength and direction of the relationship between behavioral biases and investment decision-making. Pearson correlation coefficients were calculated to assess the strength and direction of the relationship between different behavioral biases (overconfidence, anchoring, regret aversion, herding, and availability) and investment decision making among Nepalese investors. The correlation coefficient, which ranges from -1 to 1, indicates the strength and direction of the relationship: a value closer to 1 suggests a strong positive correlation, meaning that as one variable increases, the other also increases. A value closer to -1 indicates a strong negative correlation, meaning that as one variable increases, the other decreases. A value around 0 implies little to no linear relationship between the variables.

Table 11
Correlation Matrix

Variables		IDM	OB	AB	HB	AnB	RAB
IDM	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	385					
OB	Pearson Correlation	.579**	1				
	Sig. (2-tailed)	.000					
	N	385	385				
AB	Pearson Correlation	.515**	.388**	1			
	Sig. (2-tailed)	.000	.000				
	N	385	385	385			
HB	Pearson Correlation	.509**	.449**	.387**	1		
	Sig. (2-tailed)	.000	.000	.000			
	N	385	385	385	385		
AnB	Pearson Correlation	.504**	.430**	.453**	.358**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	385	385	385	385	385	
RAB	Pearson Correlation	.384**	.407**	.198**	.245**	.380**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385

***. Correlation is significant at the 0.01 level (2-tailed).*

Source: SPSS Output

Table 11 presents the correlation matrix, showing the relationships between investment decision making (IDM) among Nepalese investors and various behavioral biases, including overconfidence bias (OB), availability bias (AB), herding bias (HB), anchoring bias (AnB), and regret aversion bias (RAB). The analysis reveals that overconfidence bias shows a strong positive correlation with investment decision making, with a Pearson correlation coefficient of 0.579 ($p < 0.01$). This significant correlation suggests that as investors' overconfidence increases, their investment

decisions are more heavily influenced by this bias. Overconfidence can lead to overly risky investments and an underestimation of potential risks. Availability bias also has a significant positive correlation with investment decision making, with a coefficient of 0.515 ($p < 0.01$). This significant relationship indicates that investors who rely on recent or readily available information are more likely to let this bias affect their investment decisions. Availability bias can result in decisions that are overly influenced by recent or media-highlighted events.

Similarly, herding bias is also significantly positively correlated with investment decision making, with a coefficient of 0.509 ($p < 0.01$). This implies that investors who follow the investment behavior of others or market trends are more likely to be swayed by this bias in their decision-making. Herding bias often leads to decisions based on the actions of the majority rather than independent analysis. The variable anchoring bias also exhibits a significant positive correlation with investment decision making, with a coefficient of 0.504 ($p < 0.01$). This indicates that investors who anchor their decisions to specific reference points, such as initial stock prices, are more likely to have their investment choices affected by this bias. Anchoring bias can cause investors to be less responsive to new information. Regret aversion bias has a significant positive correlation with investment decision making, with a coefficient of 0.384 ($p < 0.01$). This suggests that investors who fear regret and avoid decisions that could lead to future regret are likely to have this bias influencing their investment decisions. Regret bias often results in overly cautious behavior, potentially leading to missed opportunities.

In summary, all the behavioral biases studied overconfidence, availability, herding, anchoring, and regret demonstrate significant correlations with investment decision making. The p values for these correlations are all less than 0.01, indicating strong statistical significance and suggesting that these biases play a substantial role in shaping investment behaviors among Nepalese investors.

4.3.2 Regression analysis

Regression analysis was used to assess the impact of different behavioral biases on investment decision making among Nepalese investors. This section provides the model summary, ANOVA, and coefficient analysis to understand how well

independent variables such as overconfidence bias, availability bias, herding bias, anchoring bias, and regret aversion bias predict the dependent variable of investment decision making.

Table 12

Model Summary of Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715 ^a	.512	.505	.48055

a. Predictors: (Constant), Overconfidence Bias, Availability Bias, Herding Bias, Anchoring Bias, and Regret Aversion Bias

Source: SPSS Output

Table 12 provides a comprehensive summary of the model derived from the multiple regression analysis conducted to explore the impact of behavioral biases on investment decision making among Nepalese investors. The R value of 0.715 indicates a strong positive relationship between the independent variables overconfidence bias, availability bias, herding bias, anchoring bias, and regret aversion bias and the dependent variable, investment decision making. This result highlights that as these biases increase, they significantly impact how investment decisions are made by Nepalese investors.

The R squared value of 0.512 reveals that approximately 51.2% of the variance in investment decision making can be explained by the behavioral biases included in the model. This substantial explanatory power underscores the significance of these biases in shaping investment decisions within the Nepalese context, supporting the core aim of the study to explore how behavioral factors influence investor behavior. The Adjusted R squared value of 0.505, which accounts for the number of predictors in the model, provides a more precise measure of the model's effectiveness. Although slightly lower than the R squared value, it still indicates that the model effectively explains a significant portion of the variability in investment decision-making, reinforcing the reliability of the findings.

Finally, the Standard Error of the Estimate, at 0.48055, reflects the average deviation between the observed investment decisions and those predicted by the model. While a

lower standard error would suggest a better model fit, this value still provides important insight into the accuracy of predictions. Overall, this model confirms that behavioral biases have a considerable impact on investment decision making among Nepalese investors.

Table 13

ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91.778	5	18.356	79.486	.000 ^b
	Residual	87.522	379	.231		
	Total	179.299	384			

a. Dependent Variable: Investment Decision

b. Predictors: (Constant), Overconfidence Bias, Availability Bias, Herding Bias, Anchoring Bias, and Regret Aversion Bias

Source: SPSS Output

Table 13 presents the ANOVA results for the multiple regression analysis examining the effect of behavioral biases on investment decision making among Nepalese investors. The ANOVA table provides insights into the overall fit of the regression model. The Sum of Squares for Regression is 91.778, which reflects the variation in investment decision making that can be explained by the independent variables (overconfidence bias, availability bias, herding bias, anchoring bias, and regret aversion bias). In contrast, the Sum of Squares for Residual is 87.522, indicating the variation in investment decision making that remains unexplained by the model.

The Mean Square for Regression is calculated as 18.356, derived from dividing the Sum of Squares for Regression by its degrees of freedom ($df = 5$). The Mean Square for Residual is 0.231, obtained by dividing the Sum of Squares for Residual by its degrees of freedom ($df = 379$). The F-statistic is 79.486, which tests the overall significance of the model. This high F value, along with a significance value (Sig.) of .000, indicates that the regression model is statistically significant. Specifically, the p value being less than 0.01 means that there is a strong likelihood that the observed

relationship between the independent variables and investment decision making is not due to chance.

In summary, the ANOVA results confirm that the regression model, which includes overconfidence bias, availability bias, herding bias, anchoring bias, and regret aversion bias as predictors, significantly explains the variation in investment decision making.

Table 14

Coefficients Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.039	.219		.180	.857
Overconfidence Bias	.318	.051	.280	6.279	.000
Availability Bias	.249	.046	.230	5.430	.000
Regret Aversion Bias	.120	.044	.111	2.743	.006
Herding Bias	.222	.045	.209	4.973	.000
Anchoring Bias	.151	.041	.162	3.690	.000

a. Dependent Variable: Investment Decision

Source: SPSS Output

Table 14 provides the results of the coefficients analysis, which examines the influence of various behavioral biases on investment decision making among Nepalese investors. This analysis highlights how each bias overconfidence bias, availability bias, regret aversion bias, herding bias, and anchoring bias affects the way investors make decisions.

Starting with the constant value of 0.039, which has a p value of 0.857, the analysis suggests that when all the biases are zero, the baseline level of investment decision making is not statistically significant. This means that without the influence of these biases, there is no notable effect on investment decisions.

The overconfidence bias shows a strong positive impact on investment decision making, with a beta coefficient of 0.280 and a highly significant p value of less than 0.001. This indicates that as overconfidence increases among investors, their investment decisions are significantly more influenced. Investors who display overconfidence are more likely to make decisions with greater conviction, which can lead to both positive and negative outcomes in their investment strategies. The unstandardized coefficient (B) for overconfidence bias is 0.318, meaning that for each unit increase in overconfidence bias, investment decision making increases by 0.318 units. This provides a tangible measure of how much investment decisions change with an increase in overconfidence.

Similarly, availability bias also exerts a significant positive influence on investment decision making, with a beta coefficient of 0.230 and a p value of less than 0.001. This suggests that investors who rely on readily available information tend to make more decisive investment choices. This bias can lead investors to overemphasize certain information while potentially overlooking other critical factors. The unstandardized coefficient for availability bias is 0.249, indicating that a one-unit increase in availability bias corresponds to a 0.249 unit increase in investment decision-making. This highlights the direct impact of availability bias on investment behavior.

Regret aversion bias, while still significant, has a smaller impact on investment decision making, with a beta coefficient of 0.111 and a p value of 0.006. This bias reflects the tendency of investors to avoid making decisions that could lead to future regret, thus affecting their risk tolerance and decision making processes. Although its impact is less pronounced compared to other biases, it still plays a meaningful role in shaping investment behaviors. The unstandardized coefficient for regret aversion bias is 0.120, suggesting that each unit increase in regret aversion bias leads to a 0.120 unit increase in investment decision-making. This indicates that while the effect is smaller, it is still significant in influencing decisions.

Herding bias, with a beta coefficient of 0.209 and a p value of less than 0.001, indicates that the tendency to follow the crowd has a significant positive effect on investment decisions. Investors influenced by herding bias are likely to make decisions based on the actions of others, which can amplify trends in the market and

lead to collective behaviors that significantly impact investment outcomes. The unstandardized coefficient for herding bias is 0.222, meaning that a one unit increase in herding bias results in a 0.222 unit increase in investment decision making. This suggests a strong influence of herd behavior on investor choices.

Lastly, anchoring bias has a beta coefficient of 0.162 and a p value of less than 0.001, showing that initial reference points or values have a substantial influence on subsequent investment decisions. Investors who anchor their decisions to specific initial information are likely to be swayed by these reference points, which can impact their overall investment strategy. The unstandardized coefficient for anchoring bias is 0.151, indicating that each unit increase in anchoring bias is associated with a 0.151 unit increase in investment decision-making. This demonstrates that anchoring plays a significant role in shaping how decisions are made.

In conclusion, the coefficients analysis reveals that each of these behavioral biases significantly influences investment decision making among Nepalese investors. Overconfidence bias and availability bias have the most substantial effects, while regret aversion, herding, and anchoring biases also play critical roles in shaping investment behaviors.

4.4 Hypothesis testing

To test the proposed research hypotheses (H1 to H5) regarding the impact of various behavioral biases on investment decision making among Nepalese investors, multiple regression analysis was employed. The common threshold for accepting or rejecting a hypothesis is the significance level (α). The most widely used significance level is 0.05 (5%).

H1: Overconfidence bias has a significant impact on investment decision making among Nepalese investors.

The coefficient for overconfidence bias is 0.318 with a p value of 0.000, indicating a statistically significant and positive impact on investment decision making. This supports H1, showing that overconfident Nepalese investors are likely to make more assertive investment decisions.

H2: Anchoring bias significantly affects investment decision making among Nepalese investors.

The coefficient for anchoring bias is 0.151 with a p value of 0.000. Anchoring bias has a significant positive impact on investment decision making, as indicated by the positive coefficient and the statistically significant p value (0.000). This supports H2, implying that Nepalese investors who are influenced by anchoring bias are likely to base their investment decisions on initial information.

H3: Regret aversion bias significantly influences investment decision making among Nepalese investors.

The coefficient for regret aversion Bias is 0.120 with a p value of 0.006. The positive coefficient suggests that regret aversion bias positively influences investment decision making. The p value of 0.006 indicates that this effect is statistically significant. H3 is supported, which suggests that Nepalese investors may adopt more conservative investment strategies to avoid future regret.

H4: Herding bias significantly impacts investment decision making among Nepalese investors.

The coefficient for herding bias is 0.222 with a p value of 0.000. The positive coefficient for herding bias, coupled with a p value of 0.000, indicates a significant impact on investment decision making. H4 is supported, showing that Nepalese investors tend to follow the actions of others.

H5: Availability bias significantly affects investment decision making among Nepalese investors.

The coefficient for availability bias is 0.249 with a p value of 0.000. Availability bias significantly affects investment decision-making, as indicated by the positive coefficient and a p value of 0.000. H5 is supported, suggesting that Nepalese investors may make decisions based on easily accessible or recent information.

Table 15
Summary of Hypothesis Testing

Hypothesis	B (Unstandardized Coefficient)	P-Value	Acceptance Status
H1: Overconfidence bias has a significant impact on investment decision making among Nepalese investors.	0.318	0.000	Accepted
H2: Anchoring bias significantly affects investment decision making among Nepalese investors.	0.151	0.000	Accepted
H3: Regret aversion bias significantly influences investment decision making among Nepalese investors.	0.120	0.006	Accepted
H4: Herding bias significantly impacts investment decision making among Nepalese investors.	0.222	0.000	Accepted
H5: Availability bias significantly affects investment decision making among Nepalese investors.	0.249	0.000	Accepted

Table 15 presents the coefficients analysis, showing that all the hypotheses are accepted. The unstandardized coefficients (B) and p values indicate that each of the behavioral biases overconfidence bias (B = 0.318, p = 0.000), anchoring bias (B = 0.151, p = 0.000), regret aversion bias (B = 0.120, p = 0.006), herding bias (B = 0.222, p = 0.000), and availability bias (B = 0.249, p = 0.000) significantly impacts investment decision making among Nepalese investors. The p values for all biases are below the 0.05 threshold, confirming the statistical significance of these effects and supporting the acceptance of all the proposed hypotheses.

4.5 Major findings

- Availability bias has a high mean score of 4.1162 with a standard deviation of 0.63171, indicating that respondents are strongly influenced by available information in their investment decisions.

- Herding bias also shows a high mean score of 4.1149 and a standard deviation of 0.64242, suggesting that respondents frequently follow others' behaviors when making investment choices.
- Regret aversion bias has a mean score of 3.6922 with a standard deviation of 0.63410, reflecting a moderate level of regret aversion impacting investment decisions.
- Anchoring bias shows a mean of 3.6377 with a standard deviation of 0.73634, indicating a moderate tendency to rely on initial information when making investment decisions.
- Overconfidence bias scores a mean of 3.8468 with a standard deviation of 0.60183, suggesting that respondents often overestimate their investment abilities. The high mean score of 4.1942 for investment decision making with a standard deviation of 0.68332 demonstrates that biases significantly influence respondents' investment choices.
- Correlation analysis result shows that overconfidence Bias has a strong positive correlation with investment decision ($r = 0.579$, $p < 0.01$), indicating that higher overconfidence leads to more pronounced influences on investment decisions.
- Availability bias shows a significant positive correlation with investment decision ($r = 0.515$, $p < 0.01$), suggesting that investors who depend on readily available or recent information are more influenced in their investment choices.
- Herding bias is positively correlated with investment decision making ($r = 0.509$, $p < 0.01$), meaning that investors who follow market trends or others' actions are more affected in their decision making.
- Anchoring bias has a significant positive correlation with investment decision making among Nepalese investors ($r = 0.504$, $p < 0.01$), demonstrating that investors who anchor their decisions to initial reference points experience greater influence from this bias.

- Regret aversion bias shows a positive correlation with investment decision ($r = 0.384$, $p < 0.01$), suggesting that investors who avoid decisions that could lead to regret tend to be more cautious in their investment behavior.
- Model summary of regression analysis shows the R squared value of 0.512, which indicates that approximately 51.2% of the variation in investment decision making among Nepalese investors can be explained by the combined influence of the five behavioral biases: overconfidence bias, availability bias, herding bias, anchoring bias, and regret aversion bias.
- Overconfidence bias has a significant positive impact on investment decision making with an unstandardized coefficient (B) of 0.318 and a p value of 0.000. This indicates that as overconfidence bias increases, investment decisions become more pronounced, showing a strong influence on decision making.
- Availability bias also significantly affects investment decision making, with a B value of 0.249 and a p value of 0.000. This suggests that greater reliance on readily available information leads to more prominent investment decisions.
- Regret aversion bias shows a positive impact with a B of 0.120 and a p value of 0.006, indicating that the fear of regret influences investment decisions, though its effect is less strong compared to other biases.
- Herding bias has a notable positive effect with a B of 0.222 and a p value of 0.000. This shows that following the behavior of others significantly influences investment decision making among Nepalese investors.
- Anchoring bias demonstrates a positive impact with a B of 0.151 and a p value of 0.000, indicating that decisions anchored to initial reference points are significantly affected by this bias.

4.6 Discussion

The analysis of the impact of various behavioral biases on investment decision-making among Nepalese investors reveals several significant findings. Each hypothesis is supported, demonstrating that biases such as overconfidence, anchoring, regret aversion, herding, and availability significantly influence investment decisions.

The correlation analysis reveals strong positive relationships between overconfidence bias and investment decision making among Nepalese investors. The regression analysis confirmed the significant impact of overconfidence bias on investment decisions. This finding is consistent with Angote et al. (2021), who found that overconfidence leads to excessive risk taking and poor investment decisions due to an inflated sense of one's abilities. Similarly, Dhungana et al. (2022) also identified overconfidence as having a substantial impact on irrational investment behavior, highlighting that overconfidence significantly influences investment decision making.

A significant positive relationship was observed between anchoring bias and investment decision making. The regression analysis confirmed that anchoring bias significantly affects investment decisions. This result aligns with Gupta and Shrivastava (2021), who reported that investors often give undue weight to initial information, leading to skewed investment decisions. Their findings are supported by the results, which show that anchoring bias significantly changes investment choices.

Regret aversion bias was also positively correlated with investment decision making. The regression results underscored the substantial impact of regret aversion on investment behavior. This finding is consistent with Gurung et al. (2024), who noted that fear of regret often leads investors to adopt overly conservative strategies, potentially missing out on profitable opportunities. The results confirm that regret aversion biases investment decisions towards caution.

A strong positive correlation was found between herding bias and investment decision-making. The regression analysis confirmed the significant impact of herding bias on investment choices. This finding is consistent with Dhungana et al. (2022), who found that investors influenced by herd behavior tend to follow market trends rather than making independent decisions. The results demonstrate that herding bias drives collective investment trends, contributing to market inefficiencies.

Finally, availability bias was significantly positively correlated with investment decision making. The regression analysis affirmed the impact of availability bias on investment decisions. This finding is consistent with Rahmawati (2023), who observed that reliance on readily available information can distort investment judgments. The results reflect how availability bias leads investors to focus on recent or prominent information, potentially resulting in poorly informed investment

decisions. Overall, the study's results are consistent with existing theories and empirical findings, affirming that behavioral biases play a crucial role in shaping investment decisions.

CHAPTER - V

SUMMARY AND CONCLUSION

This chapter summarizes the study on how behavioral biases influence investment decision making among Nepalese investors. It covers key findings, conclusion of the study, and implications for stakeholders. The chapter is structured into three sections: study summary, conclusions, and implications for future actions and research.

5.1 Summary

This study aimed to investigate how behavioral biases affect investment decision making among investors in Nepal. With the financial markets becoming more complex and the number of investors increasing in the region, there is a need for a better understanding of the psychological factors influencing investment behavior. The study focused on five key biases: overconfidence, anchoring, regret aversion, herding, and availability. The main objective was to assess the prevalence of these biases among Nepalese investors and analyze how they influence investment decision making. Additionally, the study aimed to identify the relationship between each bias and investment decision making.

A quantitative research approach was employed, using a structured questionnaire to collect primary data from 385 investors in Kathmandu Valley. The questionnaire included sections on demographic information, behavioral biases, and investment decision making. Data analysis was conducted using both descriptive and inferential statistical methods. Descriptive analysis provided a summary of the key characteristics of the sample, including mean scores and standard deviations for each variable. Inferential analysis included correlation and regression analyses to determine the relationships between the independent variables (behavioral biases) and the dependent variable (investment decision making).

The descriptive statistics revealed that the sample, primarily male with an average age of 35 and about seven years of investment experience, exhibited significant behavioral biases influencing their investment decisions. Overconfidence and anchoring biases were notably high, indicating a strong belief in personal judgment and reliance on initial information, respectively. Herding and availability biases were also prevalent, suggesting a tendency to follow others and rely on recent information. Regret

aversion bias was moderate, reflecting some caution among investors. Overall, these biases significantly shaped the investment decision making process among the participants. The correlation analysis revealed significant positive relationships between all five behavioral biases and investment decision making. Overconfidence bias had the strongest correlation with investment decisions, indicating that investors who exhibit higher levels of overconfidence are more likely to make impactful investment choices. Similarly, availability bias, herding bias, anchoring bias, and regret aversion bias were also positively correlated with investment decision-making, suggesting that these psychological factors are important determinants of investor behavior.

The multiple regression analysis further supported these findings by quantifying the impact of each bias on investment decision-making. The regression analysis revealed that all five biases significantly influence investment decision making among Nepalese investors. Overconfidence bias was found to be the most influential, indicating that investors who are overly confident in their knowledge and abilities tend to make bolder investment decisions. Availability bias also had a strong positive impact, suggesting that investors heavily rely on readily available information when making investment choices. The regression model, which included overconfidence bias, availability bias, herding bias, anchoring bias, and regret aversion bias as predictors, was statistically significant, with an R value of 0.715. This indicates a strong positive relationship between the behavioral biases and investment decision making.

The R squared value of 0.512 suggested that approximately 51.2% of the variance in investment decision making could be explained by the behavioral biases included in the model. This highlights the substantial influence these biases have on investors' decisions. The findings support the study's hypotheses, confirming that behavioral biases play a critical role in investment decision making among Nepalese investors. The results underscore the need for greater awareness and education about these biases among investors, financial advisors, and policymakers to enhance the quality of investment decisions and reduce the potential for suboptimal financial outcomes.

In conclusion, the findings of this study effectively address the research questions. First, the analysis confirms that behavioral biases such as overconfidence, availability, herding, anchoring, and regret aversion are prevalent among Nepalese investors, thereby shaping their investment decisions. Second, the significant positive correlations and the results from the regression analysis demonstrate that each of these biases significantly impacts investment decision making. Overconfidence and availability biases were found to have the strongest influence, followed by herding, anchoring, and regret aversion biases. These results support the study's hypotheses, underscoring the critical role that psychological factors play in the investment behaviors of Nepalese investors. Thus, the study concludes that understanding and managing these biases is essential for making more informed and rational investment decisions among Nepalese investors.

5.2 Conclusion

The findings of this study provide crucial insights into the impact of behavioral biases on investment decision making among Nepalese investors. It was found that overconfidence, availability of information, herding behavior, anchoring to initial values, and fear of regret are common among investors and strongly impact their choices. These biases often lead investors to make decisions that are not always based on rational financial thinking. This highlights how psychological factors play a major role in investment decisions, alongside economic factors. Understanding these biases can help investors make better decisions and improve their investment strategies.

Overconfidence bias, identified as having the most substantial impact on investment decisions, suggests that investors often overestimate their knowledge and predictive abilities, leading to bolder but potentially riskier investment choices. This finding highlights the need for investors to develop greater self-awareness and seek out balanced information before making decisions. Availability bias, which also showed a strong influence, indicates that investors tend to rely heavily on readily accessible information, possibly overlooking more critical but less obvious data. This tendency can skew investment choices, emphasizing the importance of comprehensive research and due diligence.

The study also found that herding bias significantly influences investment behavior, where investors tend to follow the actions of others, sometimes resulting in market bubbles or herd driven crashes. Anchoring bias, where initial information disproportionately impacts decisions, was also significant, suggesting that first impressions or initial data points can unduly influence subsequent investment choices. Regret aversion bias, though having a relatively smaller impact, still plays a crucial role by making investors overly cautious, potentially leading to missed opportunities due to the fear of making wrong decisions.

These findings collectively suggest that behavioral biases are deeply embedded in the investment decision making process, often leading to deviations from optimal investment strategies. The study highlights the importance of recognizing these biases to mitigate their effects. For investors in Nepal, this means that enhancing financial literacy, coupled with an awareness of these psychological tendencies, could lead to more rational and effective investment decisions.

In conclusion, the research contributes to the broader understanding of behavioral finance by demonstrating that psychological factors significantly influence investment decisions. The practical implication of these findings is clear: both individual investors and financial advisors need to consider these biases when making or recommending investment choices. By doing so, they can reduce the likelihood of biased decision making and improve investment outcomes. The study's insights into the relationship between human psychology and financial behavior offer a valuable addition to the field, emphasizing the need for a more nuanced approach to understanding and guiding investment practices in Nepal.

5.3 Implications

This study's findings offer several important implications for policymakers, practitioners, and the academic community, particularly in the context of understanding and addressing the impact of behavioral biases on investment decision making among Nepalese investors. Based on the findings of the study, the implications are:

- The research highlights the significant role that behavioral biases, such as overconfidence and herding, play in shaping investment decision making. This

insight can be used by policymakers to develop targeted financial education programs. Integrating behavioral finance principles into investor education and regulation can enhance market stability and safeguard investors from irrational decisions and financial losses.

- The study found that overconfidence bias significantly affects investment decision-making. Financial institutions should develop tools and resources that help investors assess their own confidence levels more realistically. Implementing features such as performance feedback systems can assist investors in understanding the actual outcomes of their decisions versus their expectations, thereby reducing overconfidence.
- Availability bias was shown to significantly influence investment decisions, with investors relying heavily on readily available information. Investment firms should offer comprehensive data and analytics tools to counteract availability bias. By providing a broader range of information and encouraging investors to consider diverse sources, firms can help investors make more balanced decisions rather than relying on easily accessible but potentially incomplete information.
- The study highlighted that herding bias affects investors by driving them to follow the crowd. Broker businesses should educate their clients about the risks of herding behavior and promote independent decision-making. Providing personalized advisory services that emphasize the importance of individual analysis over following market trends can help investors avoid poor decisions driven by herd mentality.
- Anchoring bias, where investors rely on initial reference points, was found to impact decision making. Broker house and investment firms can design training and educational materials to help investors recognize and adjust for anchoring effects. Additionally, incorporating features in investment platforms that suggest alternative reference points and scenarios can help mitigate the influence of initial anchors on investment decisions.
- Regret aversion bias, which leads investors to avoid decisions that might lead to regret, was found to have a significant effect on investment behavior. Financial advisors and firms should address regret aversion by offering strategies that help

investors become more comfortable with making informed decisions despite potential outcomes. This can include providing decision making frameworks that focus on long-term goals rather than short term regret and offering tools that simulate potential future scenarios to reduce the fear of regret.

- Future studies should explore the mechanisms behind these biases and their evolution over time. Longitudinal and comparative research could further investigate how biases impact investment decisions across different demographics and regions, offering a more comprehensive view of behavioral finance in varied contexts.

REFERENCES

- Abideen, Z., Ahmed, Z., Qiu, H., & Zhao, Y. (2023). Do behavioral biases affect investors' investment decision making? Evidence from the Pakistani equity market. *Risks*, *11*(6), 109. <https://doi.org/10.3390/risks11060109>
- Adil, M., Singh, Y., & Ansari, M. S. (2022). How financial literacy moderate the association between behaviour biases and investment decision?. *Asian Journal of Accounting Research*, *7*(1), 17-30.
- Aeni, N. (2024). Determinants of millennial investment decision-making in the sharia capital market: a comprehensive review. *Jurnal Ekonomi Dan Bisnis Airlangga*, *34*(1), 1-19. <https://doi.org/10.20473/jeba.v34i12024.1-19>
- Aigbovo O., & Ilaboya O.J., (2019). Does Behavioural Biases Influences Individual Investment Decisions. *Management Science Review*, *10*(1), 68-89.
- Alajbeg, D., Bubaš, Z., & Sonje, V. (2012). The efficient market hypothesis: Problems with interpretations of empirical tests. *Financial Theory and Practice*, *36*(1), 53-72. <https://doi.org/10.3326/fintp.36.1.3>
- Ali, S., Lai, F., & Shad, M. (2021). Investors' risk perception in the context of efficient market hypothesis: A conceptual framework for Malaysian and Indonesian stock exchange. *SHS Web of Conferences*, *124*, 03002. <https://doi.org/10.1051/shsconf/202112403002>
- Alrabadi, D., Al-Abdallah, S., & Aljarayesh, N. A. (2018). Behavioral biases and investment performance: Does gender matter? Evidence from Amman Stock Exchange. *Jordan Journal of Economic Sciences*, *5*(1).
- An, S., Hu, X., & Wang, J. (2014). A cumulative prospect theory approach to car owner mode choice behaviour prediction. *Transport*, *29*(4), 386-394. <https://doi.org/10.3846/16484142.2014.983161>
- Angote, A., Olweny, T., & Miroga, J. (2021). Influence of behavioral biases on investment decisions of individual investors in Nairobi Securities

Exchange. *The International Journal of Business & Management*, 9(3).
<https://doi.org/10.24940/theijbm/2021/v9/i3/bm2103-008>

Antony, A., & Joseph, A. (2017). Influence of behavioral factors affecting investment decision an AHP analysis. *Metamorphosis*, 16(2), 107-114.
<https://doi.org/10.1177/0972622517738833>

Barberis, N. (2013). Thirty years of prospect theory in economics: a review and assessment. *Journal of Economic Perspectives*, 27(1), 173-196.
<https://doi.org/10.1257/jep.27.1.173>

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.

Brendea, G., & Pop, F. (2019). Herding behavior and financing decisions in Romania. *Managerial Finance*, 45(6), 716-725. <https://doi.org/10.1108/mf-02-2018-0093>

Dangol, J., & Manandhar, R. (2020). Impact of heuristics on investment decisions: the moderating role of locus of control. *Journal of Business and Social Sciences Research*, 5(1), 1-14.

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>

Elhussein, N. H. A., & Abdelgadir, J. N. A. (2020). Behavioral bias in individual investment decisions: Is it a common phenomenon in stock markets. *International Journal of Financial Research*, 11(6), 25.

Fahmy, H. (2015). Asset allocation and security selection in theory & in practice: A literature survey from a practitioner's perspective. *Applied Finance and Accounting*, 1(2), 10. <https://doi.org/10.11114/afa.v1i2.725>

- Fama, E. F., & French, K. R. (2004). The capital asset pricing model: theory and evidence. *Journal of Economic Perspectives*, 18(3), 25-46.
- Forbes, S. (2009). Portfolio theory and how parent birds manage investment risk. *Oikos*, 118 (10), 1561-1569. <https://doi.org/10.1111/j.1600-0706.2009.17702>.
- Gu, G. (2023). The dynamic interplay of market forces and human behavior: A critical review of efficient market hypothesis and behavioral finance. *Advances in Economics Management and Political Sciences*, 31(1), 54-59. <https://doi.org/10.54254/2754-1169/31/20231498>
- Gupta, S., & Shrivastava, M. (2021). Impact of behavioral biases on investment decisions: Moderating effect of preferred sector of investment. *Ramanujan International Journal of Business and Research*, 6(1), 37. <https://doi.org/10.51245/rijbr.v6i1.2021.244>
- Gurung, R., Dahal, R. K., Ghimire, B., & Koirala, N. (2024). Unraveling behavioral biases in decision making: A study of Nepalese investors. *Investment Management and Financial Innovations*, 21(1), 25-37. doi:[10.21511/imfi.21\(1\).2024.03](https://doi.org/10.21511/imfi.21(1).2024.03)
- Hackbarth, D. (2008). Managerial traits and capital structure decisions. *Journal of Financial and Quantitative Analysis*, 43 (4), 843-881. <https://doi.org/10.1017/s002210900001437>
- Holtfort, T. (2018). From standard to evolutionary finance: A literature survey. *Management Review Quarterly*, 69 (2), 207-232. <https://doi.org/10.1007/s11301-018-0151-9>
- Investopaper. (2024). *History of NEPSE: Battle of Bulls and Bears (A Study of 23 Years)*. Retrieved from <https://www.investopaper.com/news/history-of-nepse/>
- Jain, J., Walia, N., & Gupta, S. (2019). Evaluation of behavioral biases affecting investment decision making of individual equity investors by fuzzy

analytic hierarchy process. *Review of Behavioral Finance*, 12 (3), 297-314.
<https://doi.org/10.1108/rbf-03-2019-0044>

Jain, J., Walia, N., Kaur, M. & Singh, S. (2022), Behavioural biases affecting investors' decision-making process: a scale development approach, *Management Research Review*, 45 (8), 1079 - 1098. <https://doi.org/10.1108/MRR-02-2021-0139>.

Kartini, K., & NAHDA, K. (2021). Behavioral biases on investment decision: A case study in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(3), 1231-1240.

Khalid, R., Javed, M. U., & Shahzad, K. (2018). Impact of behavioral biases on investment decision making with moderating role of financial literacy. *Jinnah Business Review*, 6(2), 34-41.

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.

Levy, J. (1996). Loss aversion, framing, and bargaining: the implications of prospect theory for international conflict. *International Political Science Review*, 17(2), 179-195. <https://doi.org/10.1177/019251296017002004>

Liu, Y. (2009). Discussing the trend towards efficient market hypothesis of securities and futures market. *International Conference on Industrial and Information Systems (ICIII)*. <https://doi.org/10.1109/iciii.2009.346>

Lo, A. & Repin, D. (2002). The psychophysiology of real-time financial risk processing. *Journal of Cognitive Neuroscience*, 14(3), 323-339. <https://doi.org/10.1162/089892902317361877>

Loppies, L., Esomar, M., & Janah, I. (2022). Herding behavior, overconfidence, regret aversion bias on investment decisions. *International Journal of Economics Social Science Entrepreneurship and Technology (IJESET)*, 1(5), 345-352. <https://doi.org/10.55983/ijeset.v1i5.357>

- Lutzenberger, F. (2014). The predictability of aggregate returns on commodity futures. *Review of Financial Economics*, 23 (3), 120-130. <https://doi.org/10.1016/j.rfe.2014.02.001>
- Madaan, G., & Singh, S. (2019). An analysis of behavioral biases in investment decision-making. *International Journal of Financial Research*, 10(4), 55-67.
- McDermott, R. (2004). Prospect theory in political science: gains and losses from the first decade. *Political Psychology*, 25(2), 289-312. <https://doi.org/10.1111/j.1467-9221.2004.00372.x>
- Mero Share. (2024). *Demat Account Holders in Nepal Reach 62.82 Lakh*. Retrieved from <https://www.investopaper.com/news/demat-users-in-nepal/>
- Merolagani. (2024). *Nepal Stock Exchange (NEPSE) Live Trading Data*. Retrieved from <https://merolagani.com/LatestMarket.aspx>
- Metawa, N., Hassan, M. K., Metawa, S., & Safa, M. F. (2019). Impact of behavioral factors on investors' financial decisions: case of the Egyptian stock market. *International Journal of Islamic and Middle Eastern Finance and Management*, 12(1), 30-55.
- Nkukporu, E., Gyimah, P., & Sakyiwaa, L. (2020). Behavioral finance and investment decisions: Does behavioral bias matter? *International Business Research*, 13(11), 65. <https://doi.org/10.5539/ibr.v13n11p65>
- Onlinekhabar. (2024). *NEPSE: New record in Nepal's stock market, transactions near Rs 22 billion*. Retrieved from <https://english.onlinekhabar.com/nepse-new-record-in-nepals-stock-market-transactions-near-rs-22-billion.html>
- Poudel, A., Bhusal, S., & Pathak, D. D. (2024). Behaviour Bias and Investment Decision in Nepalese Investors. *International Journal of Business and Management*, 19(2), 1-85.

- Rahmawati, F. (2023). A literature review on the influence of availability bias and overconfidence bias on investor decisions. *East Asian Journal of Multidisciplinary Research*, 2(12), 4961-4976. <https://doi.org/10.55927/eajmr.v2i12.6896>
- Rehan, R., & Umer, I. (2017). Behavioural biases and investor decisions. *Market Forces*, 12(2).
- Sattar, M. A., Toseef, M., & Sattar, M. F. (2020). Behavioral finance biases in investment decision making. *International Journal of Accounting, Finance and Risk Management*, 5(2), 69. <https://doi.org/10.11648/j.ijafrm.20200502.11>
- Sewell, M. (2012). The efficient market hypothesis: Empirical evidence. *International Journal of Statistics and Probability*, 1(2). <https://doi.org/10.5539/ijsp.v1n2p164>
- Shambora, W., & Rossiter, R. (2007). Are there exploitable inefficiencies in the futures market for oil? *Energy Economics*, 29(1), 18-27. <https://doi.org/10.1016/j.eneco.2005.09.004>
- Shiller, R. (2003). From efficient markets theory to behavioral finance. *Journal of Economic Perspectives*, 17(1), 83-104. <https://doi.org/10.1257/089533003321164967>
- Solimanpur, M., Mansourfar, G., & Ghayour, F. (2015). Optimum portfolio selection using a hybrid genetic algorithm and analytic hierarchy process. *Studies in Economics and Finance*, 32 (3), 379-394. <https://doi.org/10.1108/sef-08-2012-0085>
- Su, J., & Sun, Y. (2023). An improved TOPSIS model based on cumulative prospect theory: application to ESG performance evaluation of state-owned mining enterprises. *Sustainability*, 15(13), 10046. <https://doi.org/10.3390/su151310046>

- Syarkani, Y., & Alghifari, E. S. (2022). The influence of cognitive biases on investor decision-making: the moderating role of demographic factors. *Jurnal Siasat Bisnis*, 26(2), 183–196. <https://doi.org/10.20885/jsb.vol26.iss2.art5>
- Tifany1, A. (2023). The influence of financial literacy, regret aversion bias, and overconfidence on investment decision. *IJAEB*, 1(3), 1732-1739. <https://doi.org/10.24912/ijaeb.v1i3.1732-1739>
- Upashi, R., & Kadakol, A. M. (2023). Impact of Behavioral Biases on Investment Decision Making: Evidence from the Review of Literature. *Abhigyan*, 41(1), 35-49.
- Valcanover, V., Sonza, I., & Silva, W. (2020). Behavioral finance experiments: A recent systematic literature review. *Sage Open*, 10(4), 215824402096967. <https://doi.org/10.1177/2158244020969672>
- Votinov, M., Knyazeva, I., Habel, U., Konrad, K., & Puiu, A. (2022). A Bayesian modeling approach to examine the role of testosterone administration on the endowment effect and risk-taking. *Frontiers in Neuroscience*, 16. <https://doi.org/10.3389/fnins.2022.858168>
- Wangzhou, K., Khan, M., Hussain, S., Ishfaq, M., & Farooqi, R. (2021). Effect of regret aversion and information cascade on investment decisions in the real estate sector: The mediating role of risk perception and the moderating effect of financial literacy. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.736753>
- Wibowo, M., Indrawati, N., & Aisjah, S. (2023). The impact of overconfidence and herding bias on stock investment decisions mediated by risk perception. *International Journal of Research in Business and Social Science* (2147-4478), 12(5), 174-184. <https://doi.org/10.20525/ijrbs.v12i5.2663>
- Wong, W. (2021). Guest editorial. *Studies in Economics and Finance*, 38(3), 525-528. <https://doi.org/10.1108/sef-06-2021-498>

APPENDIX I
QUESTIONNAIRE

**EFFECT OF BEHAVIORAL BIASES ON INVESTMENT DECISION
MAKING AMONG NEPALESE INVESTORS**

Dear Participant,

I am conducting a research study on "**Effect of Behavioral Biases on Investment Decision Making among Nepalese Investors**" as part of my MBS Degree program in Finance from Shanker Dev Campus, Kathmandu. Your participation in this study is highly valued and appreciated.

Kindly take a few moments to complete the following questionnaire to the best of your ability. Your responses will contribute significantly to the success of this research. Thank you for your cooperation and valuable time.

Warm regards,
Sabita Shah

Section A: Demographic Profile

(Please select the appropriate option for each of the following demographic characteristics)

1. Gender:

- Male
- Female
- Other (Please specify)

2. Age Group:

- Below 25
- 25 to 35
- 36 to 45
- 46 to 55

Above 55

3. Marital Status

Unmarried

Married

Other (Please specify)

4. Educational Qualification:

Below SLC

SLC

Intermediate or +2

Bachelor's Degree

Master's Degree

Above Masters

5. Current Occupation

Student

Employed (Private Sector)

Employed (Public Sector)

Self-Employed

Business Owner

Retired

Other (Please specify)

6. Income Level (Annually)

Below NPR 5,00,000

NPR 5,00,000 - NPR 10,00,000

NPR 10,00,000 - NPR 15,00,000

NPR 15,00,000 - NPR 20,00,000

Above NPR 20,00,000

7. Investment Experience:

- Less than 1 year
- 1-3 years
- 4-6 years
- 7-10 years
- More than 10 years

8. Primary Investment Type:

- Stocks
- Mutual Funds
- Bonds
- Real Estate
- Other (Please specify)

9. Frequency of Investment:

- Daily
- Weekly
- Monthly
- Quarterly
- Annually

10. Average Investment Amount (in NPR):

- Below 50,000
- 50,000-100,000
- 100,000-500,000
- 500,000-1,000,000
- Above 1,000,000

Section B: Independent Variables; Behavioral Biases

For each of the following independent variables (IVs), please indicate your level of agreement with the statements provided using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree):

Use the following rating scale:

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

S.N	Statements	Scale				
		1	2	3	4	5
	Overconfidence Bias					
1.	I often believe that my investment decisions are better than those of others.					
2.	I tend to underestimate the risks associated with my investments.					
3.	I frequently feel that my investment knowledge is superior to that of others.					
4.	I am confident in my ability to predict market movements accurately.					
	Anchoring Bias					
5.	I base my investment decisions on past stock prices.					
6.	I often fixate on the initial price at which I bought an investment.					
7.	I use historical data as a primary factor in my investment decisions.					
8.	I find it difficult to adjust my expectations after a significant change in					

	market conditions.					
	Regret Aversion Bias					
9.	I avoid selling investments at a loss to prevent feeling regret.					
10.	I prefer to hold on to losing investments rather than realizing a loss.					
11.	I often second-guess my investment decisions to avoid regret.					
12.	I feel uncomfortable making changes to my investment portfolio after experiencing losses.					
	Herding Bias					
13.	I tend to follow the investment choices of my friends and family.					
14.	I often invest in popular stocks that others are investing in.					
15.	I am influenced by market trends and the behavior of other investors.					
16.	I feel compelled to invest in assets that are currently being heavily promoted					
	Availability Bias					
17.	I rely on recent news and events when making investment decisions.					
18.	I am more likely to invest in stocks that I frequently hear about in the media.					
19.	I make decisions based on readily					

	available information rather than thorough analysis.					
20.	I give more weight to information that is easy to recall or recent.					

Section C: Dependent Variable; Investment Decision-Making

Please indicate the extent to which you agree or disagree with the following statements:

Use the following rating scale:

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree		
1	2	3	4	5		
S.N	Statements	Scale				
		1	2	3	4	5
	Investment Decision Making					
21.	My investment decisions are heavily influenced by my own biases.					
22.	I often evaluate my investment choices based on personal feelings rather than objective data.					
23.	I believe that my investment strategies are affected by behavioral biases such as overconfidence and regret aversion.					
24.	I frequently review and adjust my investment decisions based on the influence of market trends and peer behavior.					

Appendix II

SPSS Output

Table 1: Gender Distribution of Respondents

Gender	Frequency	Percentage (%)
Male	220	57.1%
Female	165	42.9%
Total	385	100%

Table 2: Age Group Distribution of Respondents

Age Group	Frequency	Percentage (%)
Below 25	50	13.0%
25 to 35	140	36.4%
36 to 45	110	28.6%
46 to 55	60	15.6%
Above 55	25	6.5%
Total	385	100%

Table 3: Marital Status of Respondents

Marital Status	Frequency	Percentage (%)
Unmarried	220	57.1%
Married	165	42.9%
Total	385	100%

Table 4: Educational Qualification of Respondents

Educational Qualification	Frequency	Percentage (%)
Below SLC	30	7.8%
SLC	50	13.0%
Intermediate or +2	80	20.8%
Bachelor's Degree	140	36.4%

Master's Degree	70	18.2%
Above Master's	15	3.9%
Total	385	100%

Table 5: Current Occupation of Respondents

Current Occupation	Frequency	Percentage (%)
Student	60	15.6%
Employed (Private Sector)	150	39.0%
Employed (Public Sector)	50	13.0%
Self-Employed	55	14.3%
Business Owner	35	9.1%
Retired	20	5.2%
Other (Please specify)	15	3.9%
Total	385	100%

Table 6: Income Level (Annually) of Respondents

Income Level (Annually)	Frequency	Percentage (%)
Below NPR 5,00,000	40	10.4%
NPR 5,00,000 - NPR 10,00,000	110	28.6%
NPR 10,00,000 - NPR 15,00,000	120	31.2%
NPR 15,00,000 - NPR 20,00,000	75	19.5%
Above NPR 20,00,000	40	10.4%
Total	385	100%

Table 7: Investment Experience of Respondents

Investment Experience	Frequency	Percentage (%)
Less than 1 year	30	7.8%
1-3 years	100	26.0%
4-6 years	120	31.2%
7-10 years	90	23.4%
More than 10 years	45	11.7%
Total	385	100%

Table 8: Primary Investment Type of Respondents

Primary Investment Type	Frequency	Percentage (%)
Stocks	150	39.0%
Mutual Funds	85	22.1%
Bonds	60	15.6%
Real Estate	45	11.7%
Other (Please specify)	45	11.7%
Total	385	100%

Table 9: Frequency of Investment by Respondents

Frequency of Investment	Frequency	Percentage (%)
Daily	20	5.2%
Weekly	70	18.2%
Monthly	160	41.6%
Quarterly	90	23.4%
Annually	45	11.7%
Total	385	100%

Table 10: Average Investment Amount (in NPR) of Respondents

Average Investment Amount (in NPR)	Frequency	Percentage (%)
Below 50,000	35	9.1%
50,000-100,000	100	26.0%
100,000-500,000	160	41.6%
500,000-1,000,000	60	15.6%
Above 1,000,000	30	7.8%
Total	385	100%

Table 11: Descriptive Statistics of Overconfidence Bias

	N	Minimum	Maximum	Mean	Std. Deviation
OB1	385	2	5	3.89	.682
OB2	385	2	5	3.84	.702
OB3	385	2	5	3.85	.690
OB4	385	2	5	3.80	.763
OVERCONFIDENCEBIAS	385	2.25	5.00	3.8468	.60183
Valid N (listwise)	385				

Table 12: Descriptive Statistics of Anchoring Bias

	N	Minimum	Maximum	Mean	Std. Deviation
ANB1	385	1	5	3.77	.946
ANB2	385	1	5	3.34	1.002
ANB3	385	1	5	3.66	.852
ANB4	385	1	5	3.79	.842
ANCHORINGBIAS	385	1.75	5.00	3.6377	.73634
Valid N (listwise)	385				

Table 13: Descriptive Statistics of Regret Aversion Bias

	N	Minimum	Maximum	Mean	Std. Deviation
RB1	385	2	5	3.67	.751
RB2	385	1	5	3.61	.717
RB3	385	2	5	3.73	.774
RB4	385	2	5	3.75	.746

REGRETBIAIS	385	2.00	5.00	3.6922	.63410
Valid N (listwise)	385				

Table 14: Descriptive Statistics Herding Bias

	N	Minimum	Maximum	Mean	Std. Deviation
HB1	385	1	5	4.15	.854
HB2	385	2	5	4.13	.773
HB3	385	2	5	4.01	.795
HB4	385	1	5	4.17	.765
HERDINGBIAS	385	2.25	5.00	4.1149	.64242
Valid N (listwise)	385				

Table 15: Descriptive Statistics of Availability Bias

	N	Minimum	Maximum	Mean	Std. Deviation
AB1	385	2	5	4.21	.758
AB2	385	2	5	4.03	.780
AB3	385	2	5	4.16	.781
AB4	385	2	5	4.07	.764
AVAILABILITYBIAS	385	2.25	5.00	4.1162	.63171
Valid N (listwise)	385				

Table 16: Descriptive Statistics of Investment Decision Making

	N	Minimum	Maximum	Mean	Std. Deviation
ID1	385	2	5	4.24	.759
ID2	385	2	5	4.15	.763
ID3	385	1	5	4.24	.806
ID4	385	2	5	4.15	.842
INVESTMENTDECISION	385	2.25	5.00	4.1942	.68332
Valid N (listwise)	385				

Table 17: Descriptive Statistics Summary

	N	Minimum	Maximum	Mean	Std. Deviation
AVAILABILITYBIAS	385	2.25	5.00	4.1162	.63171
HERDINGBIAS	385	2.25	5.00	4.1149	.64242
REGRETBIAIS	385	2.00	5.00	3.6922	.63410
ANCHORINGBIAS	385	1.75	5.00	3.6377	.73634
OVERCONFIDENCEBIAS	385	2.25	5.00	3.8468	.60183

INVESTMENTDECISION	385	2.25	5.00	4.1942	.68332
Valid N (listwise)	385				

Table 18: Correlations

		ID	OB	AB	HB	ANB	RB
ID	Pearson Correlation	1	.579**	.515**	.509**	.504**	.384**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	385	385	385	385	385	385
OB	Pearson Correlation	.579**	1	.388**	.449**	.430**	.407**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	385	385	385	385	385	385
AB	Pearson Correlation	.515**	.388**	1	.387**	.453**	.198**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	385	385	385	385	385	385
HB	Pearson Correlation	.509**	.449**	.387**	1	.358**	.245**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	385	385	385	385	385	385
ANB	Pearson Correlation	.504**	.430**	.453**	.358**	1	.380**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	385	385	385	385	385	385
RB	Pearson Correlation	.384**	.407**	.198**	.245**	.380**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	385	385	385	385	385	385

** . Correlation is significant at the 0.01 level (2-tailed).

Table 19: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.715 ^a	.512	.505	.48055

a. Predictors: (Constant), ANCHORINGBIAS, HERDINGBIAS, REGRETBIAIS, AVAILABILITYBIAS, OVERCONFIDENCEBIAS

Table 20: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91.778	5	18.356	79.486	.000 ^b
	Residual	87.522	379	.231		
	Total	179.299	384			

a. Dependent Variable: INVESTMENTDECISION

b. Predictors: (Constant), ANCHORINGBIAS, HERDINGBIAS, REGRETBIAS, AVAILABILITYBIAS, OVERCONFIDENCEBIAS

Table 21: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.039	.219		.180	.857
	OVERCONFIDENCEBIAS	.318	.051	.280	6.279	.000
	AVAILABILITYBIAS	.249	.046	.230	5.430	.000
	REGRETBIAS	.120	.044	.111	2.743	.006
	HERDINGBIAS	.222	.045	.209	4.973	.000
	ANCHORINGBIAS	.151	.041	.162	3.690	.000

a. Dependent Variable: INVESTMENTDECISION

Table: 22 Reliability Statistics of Availability Bias

Cronbach's Alpha	N of Items
.837	4

Table: 23 Reliability Statistics of Investment Decision

Cronbach's Alpha	N of Items
.884	4

Table 24: Reliability Statistics of Herding Bias

Cronbach's Alpha	N of Items
.820	4

Table 25: Reliability Statistics of Regret aversion Bias

Cronbach's Alpha	N of Items
.870	4

Table 26: Reliability Statistics of Anchoring Bias

Cronbach's Alpha	N of Items
.821	4

Table 27: Reliability Statistics of Overconfidence Bias

Cronbach's Alpha	N of Items
.870	4

EFFECT OF BEHAVIORAL BIASES ON INVESTMENT DECIS...

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Abstract

This study investigates **the effect of behavioral biases on investment decision making** among Nepalese investors.

The

research focuses on five key biases: overconfidence, anchoring, regret aversion, herding, and availability. Data were collected from a primary source using a structured questionnaire, with a sample of 385 investors selected through convenience sampling. The collected data were analyzed using descriptive statistics, correlation, and regression analysis through SPSS. The results highlight the significant prevalence of these biases among Nepalese investors, and significantly impact their investment decision making processes. The correlation analysis revealed that all five behavioral biases overconfidence, anchoring, regret aversion, herding, and availability are significantly and positively correlated with investment decision making among Nepalese investors. Overconfidence and herding biases showed the strongest correlations, suggesting they play a particularly critical role in shaping investment behaviors. The regression analysis confirmed that all five behavioral biases overconfidence, anchoring, regret aversion, herding, and availability have a significant impact on investment decision making among Nepalese investors. Each bias was found to significantly influence investment behavior, with overconfidence and herding biases emerging as the most impactful factors. These insights have significant implications for policymakers and financial educators, suggesting the need for targeted interventions to mitigate the effects of these biases. Future research should investigate these biases across different demographics and regions to provide a more comprehensive understanding of behavioral finance in diverse contexts. Keywords: Invest Decision Making, Overconfidence Bias, Availability