Original Article

Impact of Behavioral Biases on Investment Decisions

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Abstract

This study investigates the influence of behavioral biases on individual investment decisions in the Nepalese equity market, focusing on five key biases: representative, herding, overconfidence, anchoring, and regret aversion. A survey of 401 investors from the Kathmandu Valley was conducted using structured questionnaires. Data analysis employed descriptive and inferential statistical methods, including regression analysis, revealing that all five biases significantly impact investment decisions, with representative bias being the most influential. The findings underscore the reliance on cognitive heuristics, such as perceived patterns and initial reference points, alongside a tendency to adopt conservative strategies driven by regret aversion. The study highlights gaps in financial literacy and information access as barriers to rational investment behaviors.

The research provides novel insights by linking behavioral finance theories to empirical data in a developing economy context, emphasizing the role of biases in shaping market dynamics. Practical implications include the need for financial literacy programs, enhanced information dissemination platforms, and decision-support tools to mitigate bias-driven errors. This study contributes to the growing body of literature on behavioral finance in emerging markets and offers actionable strategies to improve investment outcomes.

Keywords: *Behavioral biases, Equity markets, Financial literacy, Investment decisions, Nepal.*

JEL Classification: *D03, D81, E44, G02, G11, G12*

Introduction

Investment is a fundamental driver of financial markets, playing a critical role in shaping economic growth and stability. It influences capital allocation, wealth creation, and market development, making it an essential activity for individuals and institutions alike. Both individual and institutional investors contribute significantly to market dynamics, with their decisions shaping trends

and influencing the broader economy. Traditionally, investment decision-making was understood through financial models that assumed rationality and market efficiency. The emergence of behavioral finance has challenged this perspective, highlighting the importance of psychological, emotional, and social factors in financial decision-making.

Behavioral finance, an interdisciplinary field combining psychology and economics, delves into the cognitive biases and emotional triggers that influence investor behavior. Unlike traditional finance theories, such as the Capital Asset Pricing Model (Sharpe, 1964) and Arbitrage Pricing Theory (Ross, 1976), which assume that investors act rationally based on complete information, behavioral finance explores how real-world decision-making often deviates from these assumptions. Cognitive biases, such as overconfidence, loss aversion, and anchoring, are central to understanding these deviations (Kahneman & Tversky, 1979). These biases can lead to irrational investment behaviors, such as excessive trading or poor portfolio diversification, underscoring the need for a behavioral approach to study financial decision-making processes (Barberis& Thaler, 2003).

The field of behavioral finance is particularly relevant in the context of developing economies, where market inefficiencies and investor irrationalities may be more pronounced. Traditional finance fails to account for the emotional and cognitive elements that drive investment decisions, leaving gaps in understanding the factors influencing market dynamics. Behavioral finance aims to bridge these gaps, offering insights into how biases affect individual and institutional investment choices. This research contributes to this growing body of knowledge by examining the behavioral biases that influence individual equity investors in the context of Kathmandu Valley. This study explores the behavioral biases that influence individual investment decisions in equity markets, highlighting how cognitive and emotional factors lead to systematic deviations from rational judgment. Key biases examined include overconfidence bias, where investors overestimate their knowledge or predictive abilities, resulting in excessive trading and higher transaction costs without proportional returns (Baker &Nofsinger, 2010). Herding bias is another common tendency, where individuals mimic market trends or follow others rather than conducting independent analysis, often contributing to market bubbles or crashes (Spyrou, 2013). Anchoring bias describes the reliance on initial reference points or historical prices, even when these anchors lack relevance (Kahneman & Tversky, 1979). Regret aversion bias leads investors to avoid decisions that might cause regret, often resulting in overly conservative strategies or missed profitable opportunities (Barberis, Mukherjee, & Wang, 2016). Representative bias involves overreliance on stereotypes or past patterns, causing decisions based on perceived similarities rather than objective analysis (Tversky & Kahneman, 1974). These biases collectively result in suboptimal outcomes, such as insufficient diversification, excessive trading, and dependence on heuristics over thorough analysis. Beyond affecting individual portfolios, these behaviors influence market trends and economic stability. This study aims to understand how these biases manifest, their impact on investment choices, and their broader implications for portfolio performance and market dynamics.

The purpose of this research is to explore how behavioral biases affect individual investment decisions, with the overarching goal of improving investment outcomes and reducing irrational behaviors in financial markets. The study is designed to provide a detailed analysis of the specific ways in which biases such as overconfidence, herding, anchoring, regret aversion, and representative bias influence investment behavior. By examining the extent and nature of these influences, the research aims to identify actionable strategies to enhance decision-making processes.

This research aims to bridge the gap between theory and practice by analyzing how these biases collectively and individually shape investment patterns. It also seeks to understand the interconnectedness of these biases, exploring how one bias might amplify or mitigate the effects of another. For example, the study examines whether overconfidence exacerbates herding behavior or whether regret aversion leads to anchoring on past losses. By exploring these relationships, the study seeks to provide a holistic understanding of the psychological drivers behind investment decisions.

These solutions include educational programs designed to increase financial literacy, decision-making tools that help investors evaluate their options objectively, and regulatory measures aimed at promoting transparency and reducing opportunities for irrational behavior. These interventions are intended to empower investors with the tools and knowledge they need to make more rational, informed decisions, ultimately leading to improved

financial outcomes and greater market stability.

Issue-Based Limitations

While this study provides valuable insights into the behavioral biases affecting investment decisions, it is subject to several limitations that may influence the generalizability and applicability of its findings.

The research is geographically constrained to Kathmandu Valley, focusing on a sample of 600 respondents. While this provides a snapshot of investor behavior in the region, it may not fully capture the diversity of perspectives and behaviors across Nepal or other developing economies. The reliance on a specific geographic sample limits the generalizability of the findings to broader populations.

The study examines five specific behavioral biases: overconfidence, herding, anchoring, regret aversion, and representative biases. Although these biases are critical, the exclusion of other potential influences, such as framing effects, mental accounting, or emotional contagion, may limit the comprehensiveness of the analysis. Future research could benefit from a broader scope that incorporates additional behavioral factors.

The target respondents include primary and secondary market investors with adequate knowledge of the stock market. While this focus ensures that the study captures informed investment behaviors, it may overlook the patterns exhibited by less-knowledgeable investors, whose decisions could also significantly impact market dynamics. The study's findings may therefore not fully represent the entire spectrum of investor behaviors.

The study relies on self-reported data collected through questionnaires, which may introduce biases such as social desirability, recall errors, and misreporting. While efforts are made to ensure the reliability of the data, these limitations may affect the accuracy of the findings and the conclusions drawn from them.

Despite these limitations, the study provides a valuable foundation for understanding the psychological and behavioral factors influencing investment decisions. It highlights the importance of addressing these constraints in future research, advocating for larger and more diverse samples, the inclusion of additional biases, and methodologies that minimize the limitations of self-reported data. This approach will contribute to a more comprehensive understanding of behavioral finance, particularly in the context of developing economies.

Theoretical Review

Behavioral finance, an interdisciplinary domain that blends economics and psychology, offers an alternative to traditional finance theories by emphasizing the role of cognitive biases and emotions in financial decision-making. Traditional finance frameworks like the Capital Asset Pricing Model (Sharpe, 1964) and Arbitrage Pricing Theory (Ross, 1976) are founded on the rationality assumption, where investors are expected to act logically and with full access to information. However, behavioral finance challenges these assumptions, acknowledging that real-world decision-making is influenced by cognitive limitations, emotional triggers, and psychological tendencies (Kahneman & Tversky, 1979). Cognitive biases such as overconfidence, herding, anchoring, regret aversion, and representative biases are critical to understanding deviations from rationality, as they explain many of the anomalies observed in financial markets (Barberis& Thaler, 2003).

One of the foundational contributions to behavioral finance is Prospect Theory, introduced by Kahneman and Tversky (1979). It demonstrates how individuals value gains and losses differently, leading to decisions influenced more by the fear of losses than the desire for equivalent gains. This loss aversion phenomenon highlights how emotional factors and heuristics dominate financial decision-making. Similarly, the overconfidence bias, identified by Barberis and Huang (2001), reveals that individuals overestimate their predictive abilities, often resulting in excessive risk-taking and trading. These theoretical underpinnings have become instrumental in explaining investor behavior in various market conditions.

Conceptual Review

The conceptual framework identifies key behavioral biases that influence individual investment decisions:

Overconfidence Bias: This bias arises when investors overestimate their knowledge, skills, or predictive accuracy, often resulting in excessive trading and higher transaction costs without proportional returns (Baker &Nofsinger,

2010).

Herding Bias: Herding occurs when investors mimic the actions of others rather than conducting independent analyses. This collective behavior can amplify market volatility and lead to phenomena like bubbles and crashes (Spyrou, 2013).

Anchoring Bias: This bias involves reliance on irrelevant initial reference points (anchors) when making decisions. Anchors, such as past prices, can skew judgments even in the face of contradicting evidence (Kahneman & Tversky, 1979).

Regret Aversion Bias: Regret aversion bias reflects a tendency to avoid decisions that could lead to future regret, often resulting in overly conservative strategies that miss potential opportunities (Barberis, Mukherjee, & Wang, 2016).

Representative Bias: This bias involves overreliance on stereotypes or historical patterns, leading to flawed assumptions about future events based on superficial similarities (Tversky & Kahneman, 1974).

These biases collectively illustrate how emotional and cognitive factors override rational considerations in investment decision-making.

Link of Theory in Conceptual Framework

Behavioral finance relies on theories like Prospect Theory (Kahneman & Tversky, 1979) and Mental Accounting (Thaler, 1985) to explain why individuals deviate from rational economic models. Prospect Theory reveals how loss aversion skews risk assessment, while Mental Accounting describes how people compartmentalize finances irrationally, influencing their spending and investment patterns. These theoretical frameworks underpin the conceptual understanding of behavioral biases, establishing their role in shaping market trends, investor choices, and economic outcomes.

Empirical Review

Numerous empirical studies validate the role of behavioral biases in shaping investment decision-making and market dynamics. Kahneman and Tversky (1979) introduced Prospect Theory, which laid the foundation for understanding irrational economic behaviors by emphasizing how loss aversion and cognitive errors influence financial choices. Building on this, Barberis and Thaler (2003) provided a comprehensive survey of behavioral finance, focusing on biases like overconfidence, herding, and regret aversion, and their implications for asset pricing and market efficiency. Spyrou (2013) analyzed herding behavior, demonstrating its significant influence on market volatility and collective irrationality, while Baker and Nofsinger (2010) empirically showed how overconfidence among investors leads to excessive trading and negatively impacts portfolio returns. Sharma and Sharma (2022) extended this understanding to emerging economies, highlighting how biases such as anchoring and regret aversion affect investment decisions in less-developed markets. Similarly, Barberis, Mukherjee, and Wang (2016) examined the role of regret aversion in asset pricing, finding that investors often prioritize avoiding regret over maximizing returns.

Empirical research further supports these findings by illustrating the widespread impact of behavioral biases across different contexts. Chaudhary (2013) investigated equity markets in India, confirming that overconfidence and herding significantly influence investor behavior. Spyrou (2013) identified herding tendencies among institutional investors, particularly during periods of market uncertainty, and linked these behaviors to market instability. Shiller (2000) explored speculative bubbles, such as the dot-com bubble, and attributed their formation to representative bias and herding. Similarly, Ritter (2003) analyzed trading patterns in the U.S., showing that regret aversion often results in suboptimal timing for buying and selling stocks. Collectively, these studies underscore the pervasive and significant role of behavioral biases in shaping investment decisions and market outcomes.

In addition to global studies, several Nepalese scholars have examined the impact of behavioral biases on investment decisions within the Nepalese stock market. Chand (2024) investigated key behavioral biases—overconfidence, loss aversion, herding, anchoring, and risk perception—and their effect on investment decisions in the Nepal Stock Exchange (NEPSE). The study found that herding behavior exhibited the strongest impact on investor

behavior, indicating a substantial influence on investment decisions at NEPSE. Similarly, Lamsal (2023) explored the impact of cognitive biases on investment decisions among Nepalese investors, highlighting that biases such as overconfidence, herding, representativeness, and anchoring significantly influence investment choices, leading to suboptimal decision-making. Dhungana (2021) examined behavioral factors influencing individual investors' decision-making and performance at NEPSE, identifying psychological factors, including overconfidence and herd behavior, as critical drivers of irrational investment behaviors.

These Nepalese studies align with international research, underscoring the pervasive influence of behavioral biases on investment decisions across different markets and cultural contexts. They highlight the need for increased awareness and education among investors to mitigate the adverse effects of these biases on investment outcomes. The integration of global and Nepalese perspectives provides a comprehensive understanding of how behavioral biases shape investment behavior, emphasizing their relevance in both developed and emerging markets

Conceptual Framework

Taking into account the above-mentioned literature, the study is structured around three types of variables: independent variables, dependent variable and, moderating.

Schematic Diagram of Conceptual Framework
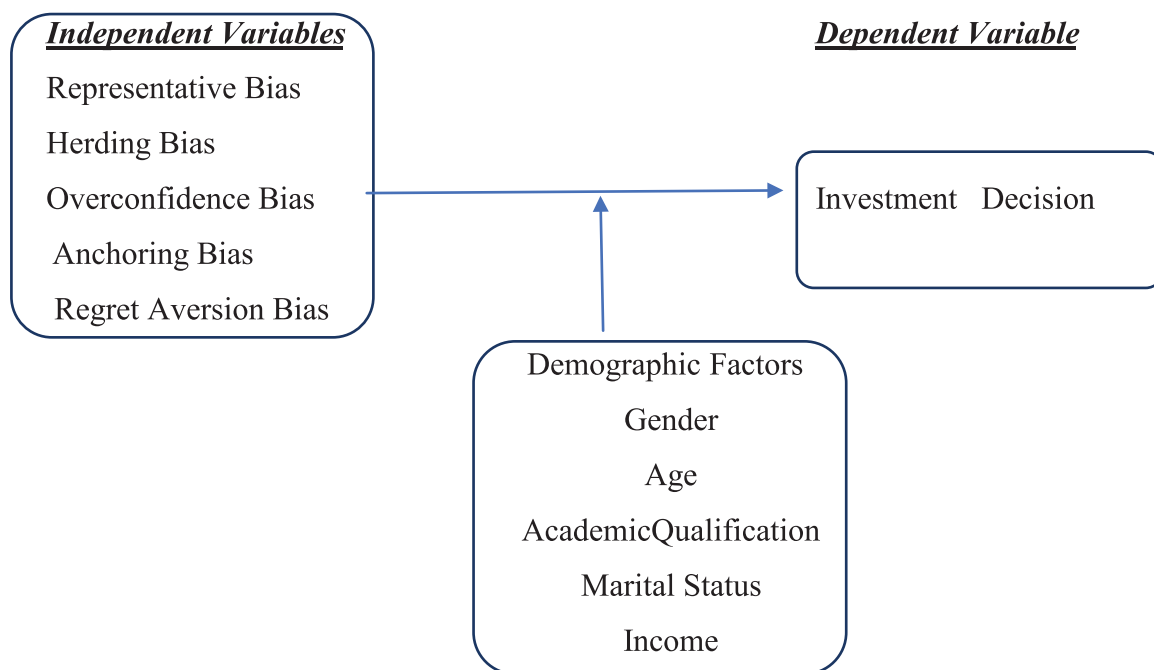
Source: Adapted from Gupta (2019).

Relationship of Variables

The relationship between the identified variables is based on the premise that behavioral biases (independent variables) significantly influence the quality and outcomes of investment decisions (dependent variable). Overconfidence may lead to frequent trading, while herding can result in collective irrationality. Anchoring, regret aversion, and representative biases affect risk assessment, portfolio choices, and market engagement. Empirical evidence suggests that these biases not only operate individually but may also interact, amplifying or mitigating their overall impact on decision-making.

Cause and Effect of Variables

Cause: Behavioral biases are caused by cognitive limitations, emotional factors, and reliance on heuristics in

decision-making processes.

Effect: These biases lead to irrational investment behaviors, such as excessive trading, insufficient diversification, and susceptibility to market trends. They also contribute to inefficiencies in financial markets, such as bubbles and crashes.

Hypothesis

H1: There is a significant impact of representative bias on investment decision.

H2: There is a significant impact of herding bias on investment decision.

H3: There is a significant impact of overconfidence bias on investment decision.

H4: There is a significant impact of anchoring bias on investment decision.

H5: There is a significant impact of regret aversion bias on investment decision.

Research Design

The study employs a causal-comparative research design to identify and establish cause-and-effect relationships between behavioral biases (independent variables) and investment decisions (dependent variable). This approach enables an in-depth investigation into the influence of behavioral biases on investment behaviors. A descriptive research component was also used to present statistical insights into the population, devoid of any manipulation, making it suitable for studying naturalistic phenomena (Roscoe, 1975). A survey-based method was employed to gather data systematically, ensuring reliable and objective results.

Population and Sampling Techniques

The population for this study includes all individual investors actively trading on the Nepal Stock Exchange (NEPSE). A non-probability sampling technique was utilized, specifically the snowball sampling approach, to identify and recruit participants. This technique is particularly effective in accessing populations that are difficult to reach or where complete sampling frames are unavailable. A sample size of 401 investors was derived, adhering to Roscoe's (1975) guidelines, which suggest that a sample size between 30 and 500 is adequate for most behavioral research. The sample included diverse respondents from varying age groups, genders, and income levels, ensuring a comprehensive analysis of demographic influences on investment behavior.

Nature and Sources of Data

Primary data were the cornerstone of this research, gathered through structured questionnaires distributed among individual NEPSE investors. A total of 401 valid responses were received, resulting in a response rate of 65.09%, which is considered satisfactory for survey-based studies. Before the main data collection, a pilot study involving 22 active investors was conducted to refine the questionnaire and ensure clarity and reliability.

Data Analysis Tools and Techniques

The data were analyzed using Statistical Package for Social Science (SPSS) Software and Microsoft Excel. The analysis incorporated:

Descriptive Statistics: Frequency, percentage, mean, and standard deviation were used to describe respondent characteristics and summarize the data.

Inferential Statistics: Techniques such as regression analysis, correlation analysis, and independent sample t-tests were applied to identify relationships and test hypotheses about the influence of behavioral biases on investment decisions.

A regression model was employed to explore the causal relationships between independent and dependent variables:

$$\gamma = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

where γ- gamma represents the investment decision, X1 to X5 are the independent variables (behavioral biases), β1 to β5 are their coefficients, and εis the error term.

Analysis and Results

Reliability and Validity

The study's reliability was measured using Cronbach's Alpha, with all constructs scoring above the threshold of 0.6, indicating acceptable internal consistency (Nunally &Berstein, 1994). Scores for the variables were as follows: representative bias (0.751), herding bias (0.670), overconfidence bias (0.614), anchoring bias (0.677), regret aversion bias (0.706), and investment decision (0.620). Validity was ensured through a comprehensive literature review and pilot testing. SPSS analysis of pilot responses facilitated necessary revisions, ensuring the instrument's precision and clarity.

Pre-testing

The pilot study with 42 NEPSE investors validated the questionnaire and ensured its readiness for full-scale data collection. Face validity was confirmed as respondents found the questions clear, relevant, and aligned with the study's focus on behavioral biases (e.g., representative, herding, overconfidence) and investment decisions. Content validity was supported by expert reviews and comprehensive coverage of all relevant variables, ensuring the questionnaire addressed independent variables and the dependent variable effectively.

Feedback from participants highlighted ambiguities, leading to simplification of technical terms, elimination of redundant items, and improvements in question clarity. Statistical validation using Cronbach's Alpha confirmed the instrument's reliability, with values for variables such as representative bias (0.751), herding bias (0.670), and overconfidence bias (0.614) exceeding the acceptable threshold of 0.6.

Revisions included simplifying language, reorganizing questions into sections for demographic and variable-specific information, and removing confusing or double-barreled questions. These steps ensured the instrument's internal consistency and usability.

The pilot study demonstrated that the questionnaire effectively captured data aligned with research objectives, met reliability standards, and benefited from critical refinements. These outcomes ensured the instrument was both valid and reliable for assessing behavioral biases in investment decisions.

Respondents' Profile

Table1

Respondents' Demographic Profile

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	270	67.3
	Female	131	32.7
Age	18–25	117	29.2
	26–35	174	43.4
	36–45	78	19.5
	46–55	21	5.2
	Above 55	11	2.7
Academic Qualification	Bachelor	155	38.7
	Master	201	50.1
	MPhil or Above	45	11.2
Marital Status	Unmarried	223	55.6
	Married	178	44.4
Monthly Income (NPR)	Less than 25,000	149	37.2
	25,001–50,000	63	15.7

Demographic Variable	Category	Frequency (n)	Percentage (%)
	50,001–75,000	133	33.2
	More than 75,000	56	14.0

Note. Data collected from field/online survey, 2024.

The table 1 illustrates a predominance of male respondents (67.3%), active participation from individuals aged 26–35 (43.4%), a highly educated sample with over 50% holding master's degrees, a majority of unmarried participants (55.6%), and significant representation from lower-income groups earning less than 25,000 NPR (37.2%).

Table 2

Distribution of Behavioral Biases, Investment Motivations, and Information Sources

Variable	Category	Frequency (n)	Percentage (%)
Behavioral Biases	Representative Bias	41	10.2
	Herding Bias	30	7.5
	Overconfident Bias	53	13.2
	Anchoring Bias	155	38.7
	Regret Aversion Bias	122	30.4
	Total	401	100
Investment Motivations	Capital Gain	152	37.9
	Future Security	33	8.2
	Liquidity Management	65	16.2
	Dividend Gain	151	37.7
	Total	401	100
Information Sources	Website of NEPSE	23	5.7
	Brokerage Firm	6	1.5
	Newspaper	46	11.5
	Company Website	171	42.6
	Annual Report of Company	139	34.7
	Website of Private Investment Services	16	4.0
	Total	401	100

Note. Data collected from field/online survey, 2024.

Table 2 summarizes respondents' perspectives on behavioral biases, investment motivations, and information sources for investment decisions. Among behavioral biases, Anchoring Bias is the most prominent (38.7%), indicating heavy reliance on past prices or historical performance. This is followed by Regret Aversion Bias (30.4%), where investors favor conservative choices to avoid future regrets. Other biases, such as Overconfidence Bias (13.2%), Representative Bias (10.2%), and Herding Bias (7.5%), are less prevalent but still influence decision-making.

Regarding investment motivations, Capital Gain (37.9%) and Dividend Gain (37.7%) are the top drivers, showcasing investors' focus on profitability and periodic returns. Lesser factors include Liquidity Management (16.2%) and Future Security (8.2%).

In terms of information sources, Company Websites (42.6%) and Annual Reports (34.7%) dominate, reflecting investors' reliance on direct and transparent corporate data. Traditional sources like Newspapers (11.5%) and modern platforms such as the NEPSE Website (5.7%) and Private Investment Service Providers (4%) play a minor role, while Brokerage Firms (1.5%) are rarely utilized.

The findings reveal that Anchoring Bias, profitability goals, and reliance on corporate data shape investment behaviors, underscoring the need for targeted education and tools to support better decision-making.

Table 3
Descriptive Statistics of Variables

Variable	N	Minimum	Maximum	Mean	S.D
Representative Bias	401	1.00	5.00	3.4344	0.72368
Herding Bias	401	1.00	5.00	3.4115	0.66871
Overconfident Bias	401	1.00	5.00	3.3880	0.72956
Anchoring Bias	401	1.00	5.00	3.4628	0.72391
Regret Aversion Bias	401	1.00	5.00	3.4858	0.66410
Investment Decision	401	1.00	5.00	3.5566	0.76119

Note. Data collected from field/online survey, 2024.

Table 3 presents an analysis of average scores for six key variables related to investment behaviors, measured on a Likert scale from 1.00 (minimum) to 5.00 (maximum). The variable Investment Decision has the highest mean score (3.5566) with a standard deviation of 0.76119, indicating a relatively strong and consistent agreement among respondents regarding their investment decision-making behaviors. Regret Aversion Bias follows closely with a mean of 3.4858 and the lowest standard deviation (0.66410), suggesting a stable and significant tendency among investors to avoid choices that might lead to future regret. Anchoring Bias exhibits a mean score of 3.4628, reflecting a substantial reliance on initial reference points during decision-making. Similarly, Representative Bias (mean of 3.4344) and Herding Bias (mean of 3.4115) demonstrate moderate influence on investment behaviors. Lastly, Overconfident Bias, with the lowest mean score of 3.3880, still highlights a notable but relatively lesser degree of overconfidence among investors. The standard deviations across all variables, ranging between 0.66410 and 0.76119, reveal a moderate level of variability in perceptions. Collectively, the findings emphasize the diverse impact of behavioral biases on investment decisions, with Investment Decision and Regret Aversion Bias emerging as particularly influential factors.

Table 4
Correlation Matrix Between Behavioral Biases and Investment Decisions

Variable	X1 (RB)	X2 (HB)	X3 (OB)	X4 (AB)	X5 (R AB)	Y (ID)
X1 (RB)	1	.645**	.642** (p=0.000)	.587** (p=0.000)	.674** (p=0.000)	.741** (p=0.000)
X2 (HB)		1	.664** (p=0.000)	.693** (p=0.000)	.688** (p=0.000)	.609** (p=0.000)
X3 (OB)			1	.786** (p=0.000)	.644** (p=0.000)	.592** (p=0.000)
X4 (AB)				1	.690** (p=0.000)	.531** (p=0.000)
X5 (RVB)					1	.671** (p=0.000)
Y (ID)						1

*Note. *Correlation is significant at the 0.01 level (2-tailed). Data Source: Field/Online Survey, 2024.

Table 4 demonstrates the correlation matrix among behavioral biases (independent variables) and investment decisions (dependent variable). All correlation coefficients are statistically significant at the 0.01 level, indicating positive associations across variables.

The analysis reveals significant positive correlations between behavioral biases and investment decisions, with all five hypotheses (H1 to H5) being accepted. Representative bias demonstrates the strongest positive correlation with investment decisions (correlation coefficient = 0.741). This indicates that as representational tendencies increase, investors are more likely to make decisions that align with perceived patterns, showcasing a substantial influence on investment behavior. Similarly, regret aversion bias shows a strong positive correlation (correlation

coefficient = 0.671), highlighting its critical role in shaping conservative investment decisions as individuals seek to avoid potential future regret.

Herding bias exhibits a moderate positive correlation with investment decisions (correlation coefficient = 0.609). This suggests that collective behaviors and reliance on group trends significantly influence individual investment choices. Overconfident bias also reflects a moderate positive correlation (correlation coefficient = 0.592), emphasizing the role of heightened self-assurance in shaping investment behaviors, particularly in stock selection and trading decisions. Anchoring bias presents the weakest yet significant correlation with investment decisions (correlation coefficient = 0.531), underscoring the impact of initial reference points on decision-making.

The findings demonstrate that behavioral biases significantly affect investment decisions, with representative bias and regret aversion bias being the most influential. Herding bias and overconfidence bias also contribute moderately, while anchoring bias, though less pronounced, remains a critical factor. These results underscore the need to address these biases through investor education and decision-support tools to promote rational and informed investment practices

Table 5

Regression Analysis Results

Variable	Beta Coefficient (β)	T-Value	P-Value	VIF
Constant	0.294	2.106	0.036	-
Representative Bias	0.492	6.991	0.000	4.326
Herding Bias	0.125	2.205	0.028	5.256
Overconfident Bias	0.133	2.323	0.021	2.135
Anchoring Bias	0.412	5.883	0.000	2.946
Regret Aversion Bias	0.312	5.392	0.000	3.236
R-Square	0.614			
F-Value	225.693		0.000	

Note. Data collected from field/online survey, 2024.

The regression analysis presented in Table 4 evaluates the influence of five behavioral biases—representative bias (RB), herding bias (HB), overconfident bias (OB), anchoring bias (AB), and regret aversion bias (RAB)—on investment decisions (ID). The regression model explains 61.4% of the variance in investment decisions (R-Square = 0.614), indicating a robust explanatory capacity. The overall significance of the model is confirmed with an F-Value of 225.693 and a p-value less than 0.001, highlighting the strong predictive relationship between the independent variables and the dependent variable.

Among the predictors, representative bias emerges as the most influential factor, with the highest beta coefficient (β = 0.492) and a highly significant p-value (p = 0.000). Its T-value of 6.991 reinforces its critical role in shaping investment decisions, suggesting that perceived patterns heavily influence investor behavior. Anchoring bias follows as the second most impactful variable (β = 0.412, p = 0.000), indicating that reliance on initial reference points significantly affects decision-making.

Regret aversion bias also plays a notable role (β = 0.312, p = 0.000), highlighting how the avoidance of future regret drives conservative investment behaviors. In contrast, overconfident bias (β = 0.133, p = 0.021) and herding bias (β = 0.125, p = 0.028) have smaller but statistically significant impacts, emphasizing moderate contributions to investment patterns. Despite their relatively lower influence, these biases underscore the importance of psychological tendencies in collective and self-assured behaviors.

The Variance Inflation Factor (VIF) values for all variables are below 6, indicating no multicollinearity issues, further validating the reliability of the regression model. The modified regression equation derived from the results is:

ID = 0.294 + 0.492(RB) + 0.125(HB) + 0.133(OB) + 0.412(AB) + 0.312(RAB) + ε.

The analysis underscores that representative bias and anchoring bias are the most critical factors influencing

investment decisions. Regret aversion bias also has a substantial effect, while herding bias and overconfidence bias play smaller but meaningful roles. The model's strong explanatory power highlights that behavioral biases collectively shape investment decisions, demonstrating their importance in understanding investor behavior.

These findings point to the need for targeted interventions to mitigate dominant biases like representative and anchoring biases. Such measures, including investor education and decision-support tools, could enhance rational decision-making and reduce the adverse effects of cognitive and emotional biases on investment outcomes.

Table 5

Summary of Hypothesis Testing Results

Hypothesis	P-value	Remarks
H1: There is a significant impact of representative bias on investment decision.	0.000	Accepted
H2: There is a significant impact of herding bias on investment decision.	0.028	Accepted
H3: There is a significant impact of overconfidence bias on investment decision.	0.021	Accepted
H4: There is a significant impact of anchoring bias on investment decision.	0.000	Accepted
H5: There is a significant impact of regret aversion bias on investment decision.	0.000	Accepted

Table 5 presents hypothesis testing results, confirming that all five behavioral biases—representative bias, herding bias, overconfidence bias, anchoring bias, and regret aversion bias—significantly influence investment decisions, with p-values below 0.05. Representative Bias (p = 0.000) is the most influential, showing strong reliance on perceived patterns and stereotypes. Anchoring Bias (p = 0.000) highlights the impact of initial reference points on decision-making, while Regret Aversion Bias (p = 0.000) reflects investors' risk-averse strategies to avoid potential regret. Herding Bias (p = 0.028) and Overconfidence Bias (p = 0.021) also significantly affect investment choices, emphasizing trends and self-assuredness in decisions. These findings validate the impact of behavioral biases and underscore the need for strategies to enhance rational investment decision-making.

Discussion

This study aims to assess how investment decisions are influenced by behavioral biases—representative bias, herding bias, overconfidence bias, anchoring bias, and regret aversion bias—while incorporating additional investment-related variables. The findings confirm the significant influence of these biases, aligning with the theoretical underpinnings of heuristic and prospect theories.

The study found that representative bias is the most influential factor, followed by anchoring bias and regret aversion bias. These findings are consistent with Gupta (2019), who examined similar biases among Indian investors, indicating comparable decision-making patterns between Nepalese and Indian investors. This similarity highlights the role of cognitive heuristics in emerging markets, where social and experiential factors heavily influence decisions. Unlike Gupta's findings, the Nepalese investors in this study relied more on external advice and less on fundamental analysis, consistent with Sharma (2022), who observed this reliance among Nepalese investors.

Behavioral biases like herding and overconfidence were also found to significantly influence investment decisions, though to a lesser extent. Herding bias reveals that many Nepalese investors rely on collective behaviors rather than independent analysis, influenced by family and friends (Bagchi et al., 2022). Additionally, overconfidence bias reflects heightened self-assurance, which, while statistically significant, has a smaller impact compared to other biases.

The study highlights information gaps as a significant challenge for Nepalese investors. The lack of timely and accurate information, compounded by limited financial literacy, hinders informed decision-making. These findings resonate with Jain et al. (2019), who identified similar issues in Nepal's capital market, emphasizing that inadequate access to information discourages rational investment behavior.

Behavioral bias was found to increase with experience and education levels. Older and more academically qualified investors displayed heightened behavioral biases, suggesting that experience in the stock market shapes cognitive

tendencies and decision-making processes. This aligns with the findings of Gupta (2019), who emphasized that investors' prior experiences and academic exposure significantly influence their attitudes toward investment.

This study underscores the importance of improving financial literacy and access to information for Nepalese investors. Enhanced knowledge and timely data access could mitigate the influence of social factors and encourage more rational, analysis-based decisions, as highlighted by Jain et al. (2019). Future research could explore behavioral biases in secondary markets, offering deeper insights into riskier and more volatile investment environments.

Conclusion

The study explored the impact of behavioral biases—representative bias, herding bias, overconfidence bias, anchoring bias, and regret aversion bias—on investment decisions among Nepalese investors. The findings highlight that representative bias is the most significant determinant, followed by anchoring bias and regret aversion bias. Herding bias and overconfidence bias, while also influential, exhibited relatively moderate impacts. The regression analysis explained 61.4% of the variance in investment decisions, confirming the substantial role of these cognitive and emotional tendencies in shaping investment behaviors.

Key findings include the strong influence of representational patterns and reliance on initial reference points (anchoring), alongside the fear of regret driving conservative investment strategies. Investors displayed a marked dependency on social and external advice, consistent with findings by Sharma (2022), which demonstrated that Nepalese investors often prioritize collective behaviors over fundamental analysis. The study also underscores significant gaps in financial literacy and timely access to information, hindering rational investment decision-making.

Implications

Investor Education: The findings suggest the need for targeted financial literacy programs to enhance rational decision-making. Education focusing on mitigating dominant biases like representative and anchoring biases could help investors rely less on stereotypes and more on data-driven strategies.

Improved Information Access: Addressing information gaps is critical. Developing platforms that provide timely, accurate, and comprehensive financial data could empower investors to make informed choices, reducing reliance on social cues.

Policy Recommendations: Regulators should consider introducing measures to promote transparency and accessibility in Nepal's stock market. Policies encouraging the dissemination of standardized company reports and investor awareness initiatives can bridge existing informational divides.

Technology Integration: Investment platforms could integrate decision-support tools based on behavioral insights to guide investors away from heuristic-driven errors toward more balanced, analytical approaches.

Future Research: The study's focus on the primary market invites further research into behavioral biases within secondary and riskier markets. This would provide a holistic understanding of how biases manifest under varying market conditions.

By addressing these biases and enhancing access to information, stakeholders—including policymakers, financial advisors, and investors—can foster a more efficient, rational, and inclusive financial market in Nepal.

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