

Do Behavioral Biases Influence Investment Decisions? Evidence from Individual Investors in Nepal

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Abstract: *This study examines how behavioral biases and financial literacy affect investment decision-making among individual investors. It focuses on overconfidence bias and herding behavior, while also assessing the role of financial literacy. Using regression analysis, the study evaluates how these factors influence the quality of investors' decisions. The findings reveal that both overconfidence bias and herding behavior have a significant negative impact, indicating that investors who overestimate their abilities or follow others tend to make suboptimal choices. These results align with behavioral finance theory, which highlights the strong influence of psychological biases on financial behavior. In contrast, financial literacy shows a positive but statistically insignificant relationship with investment decision-making. This suggests that although financial knowledge may support better decisions, it does not fully offset the adverse effects of behavioral biases. Overall, the study emphasizes the importance of addressing psychological influences in investor behavior and suggests that improving financial literacy alone may not be sufficient to ensure rational investment decisions.*

Keywords: behavioral biases, overconfidence bias, herd effect, financial literacy, investment decision

I. INTRODUCTION

Traditional finance theory assumes that investors behave rationally, processing all available information efficiently to maximize expected utility through optimal risk–return trade-offs. However, extensive empirical and experimental evidence has consistently challenged this assumption, showing that investors often deviate from rational behavior due to psychological and social influences (Kahneman & Tversky, 1979; Thaler, 1993). In response, behavioral

finance emerged by incorporating insights from psychology into economic models, emphasizing that cognitive limitations, emotions, and social factors systematically shape financial decision-making (Barberis & Thaler, 2003; Subrahmanyam, 2008). This shift provides a more realistic explanation of investor behavior in both developed and emerging markets.

Among the many behavioral biases identified, overconfidence bias and herd effect are among the most influential in shaping individual investment decisions. Overconfidence bias occurs when investors overestimate their knowledge, forecasting ability, and control over market outcomes, which often leads to excessive trading, underestimation of risk, and poor portfolio performance (Barber & Odean, 2001; Farooq & Sajid, 2015; Drechsler, 2021). In contrast, herd behavior refers to investors' tendency to imitate others rather than rely on independent analysis, particularly under uncertainty or information asymmetry. This behavior can intensify market volatility and lead to collective mispricing (Bikhchandani & Sharma, 2001; Baddeley, 2010; Sattar et al., 2020). Together, these biases highlight how psychological and social influences can distort rational investment decisions.

In recent years, financial literacy has been widely recognized as an important factor in improving investment decision-making. Financially literate investors generally have a better understanding of financial instruments, risk assessment, and market interpretation (Lusardi & Mitchell, 2014). However, research indicates that financial literacy alone is not sufficient to eliminate behavioral biases. Even knowledgeable investors may continue to exhibit overconfidence or herd behavior due to emotional responses, social pressure, or prevailing market sentiment (Kumar & Goyal, 2015; Kusumaningrum et al., 2019; Hidayat & Hartono, 2022). Recent studies further confirm that such biases persist even among financially literate individuals, particularly in emerging and less efficient markets (Fateye et al., 2024; Nguyen et al., 2024).

These challenges are particularly evident in developing economies like Nepal, where capital markets are still evolving, investor protection mechanisms are developing, and financial literacy levels vary widely. Retail investors often rely on informal sources of information, peer influence, and market rumors, making them more vulnerable to behavioral biases (Karmacharya et al., 2022). Despite increasing interest in behavioral finance, empirical evidence from Nepal remains limited, especially regarding the interaction between behavioral biases and financial literacy in shaping investment decisions.

Against this background, the present study examines the influence of overconfidence bias and herd effect on investment decisions among retail investors in Tarakeshwor, Kathmandu, while also investigating whether financial literacy moderates these relationships. Grounded in Behavioral Finance Theory (Thaler, 1993), the study aims to provide empirical evidence on how psychological and knowledge-based factors jointly affect investment behavior in an emerging market context.

II. LITERATURE REVIEW

Theoretical review. Behavioral Finance Theory emerged to address the limitations of traditional finance, which assumes that investors are fully rational and make decisions to maximize expected utility. In contrast, Behavioral Finance incorporates insights from psychology and sociology to explain how cognitive limitations, emotions, and social influences affect financial decision-making (Thaler, 1993; Barberis & Thaler, 2003; Subrahmanyam, 2008). It emphasizes that investors are boundedly rational and often rely on heuristics and biases rather than purely objective analysis.

A key premise of the theory is that cognitive biases lead to systematic deviations from rational behavior, resulting in market inefficiencies and mispricing (Barberis & Thaler, 2003). Among the most prominent biases are overconfidence and herd behavior, both highly relevant to individual investors. Overconfidence causes investors to overestimate their knowledge and control, often leading to excessive trading and poor performance (Barber & Odean, 2001; Merkle, 2017). Herding, on the other hand, reflects the tendency to follow others instead of relying on independent judgment, especially during uncertainty (Bikhchandani & Sharma, 2001; Baddeley, 2010).

Behavioral Finance provides a strong framework for understanding investment decisions shaped by psychological and social influences rather than only risk–return considerations. It has been widely applied in both developed and emerging markets to explain why investors often make suboptimal choices despite having access to relevant information (Subrahmanyam, 2008). Empirical evidence further shows that these biases persist even among financially knowledgeable investors, highlighting the limitations of traditional rational models (Kumar & Goyal, 2015).

Overall, Behavioral Finance Theory offers a comprehensive and empirically supported framework for analyzing investment decision-making under uncertainty. It effectively explains the negative impact of overconfidence and herding on investment decisions, as well as the limited moderating role of financial literacy.

Empirical review. Empirical research strongly supports the argument that behavioral biases significantly influence investment decisions, a key proposition of Behavioral Finance Theory. In emerging markets such as Nepal, evidence consistently reveals that investors deviate from rational decision-making due to cognitive and social influences. These deviations highlight the practical relevance of behavioral finance in explaining real-world investment behavior.

In the Nepalese context, several recent studies have examined how biases such as overconfidence, herding behavior, and loss aversion affect decisions at the Nepal Stock Exchange (NEPSE). Rawat (2023) finds that overconfidence bias has a strong and positive impact on individual investors' decisions, with risk perception and loss aversion also playing important roles. Similarly, Thapa (2024) reports that herding behavior, overconfidence, anchoring, and the disposition effect are all positively associated with investment choices

among Nepalese investors, confirming the widespread influence of behavioral biases. Chand (2024) further establishes that overconfidence, herding, and loss aversion significantly shape stock investment decisions, emphasizing the role of psychological factors in market participation.

Research has also explored the moderating role of financial literacy. Rana (2019) finds that herding behavior significantly influences both overconfidence and investment decisions, while financial literacy can moderate these relationships. However, the study also shows that financial knowledge does not completely eliminate bias-driven behavior. Rana (2019) additionally reports that past investment experience and overconfidence increase herding tendencies, while financial literacy helps reduce—but not fully remove—these effects. Dev et al. (2023) highlight that demographic factors such as age and income interact with behavioral biases, influencing investors' susceptibility to overconfidence and herding in the Nepalese market. Further evidence from Risal et al. (2025) confirms that these biases significantly affect investment behavior, reinforcing consistent findings across studies.

These Nepalese results are consistent with international evidence demonstrating the global relevance of behavioral biases. Barber and Odean (1999) show that overconfident investors tend to trade excessively, leading to lower net returns. Their findings indicate that overconfidence increases trading volume while reducing performance compared to rational benchmarks. Prospect Theory by Kahneman and Tversky (1979) further explains how biases such as loss aversion and framing influence decision-making under risk, showing that investors weigh losses more heavily than gains. Additionally, Philippas et al. (2013) find that herding behavior intensifies during periods of market stress, increasing volatility and distorting price signals.

Overall, both Nepalese and international studies confirm that behavioral biases such as overconfidence and herding systematically influence investment decisions. Although financial literacy and experience can moderate these effects, they do not fully eliminate them. This evidence reinforces Behavioral Finance Theory as a robust framework for understanding investor behavior. It also highlights the need for improved investor education, effective regulatory policies, and continued research on behavioral factors shaping financial decision-making in emerging markets.

Research hypothesis. Behavioral Finance Theory argues that investors are not always rational, as their decisions are influenced by psychological biases and social factors rather than purely objective risk–return analysis (Kahneman & Tversky, 1979; Barberis & Thaler, 2003). Among these biases, overconfidence and herding behavior are widely recognized as key determinants of individual investment decisions, particularly in emerging markets.

Overconfidence bias leads investors to overestimate their knowledge and predictive ability, often resulting in excessive trading and poor investment outcomes (Barber & Odean, 2001). Evidence from both international and Nepalese studies shows that overconfident investors tend to make aggressive decisions without adequately assessing risk, thereby

affecting decision quality (Thapa, 2024; Rana, 2019). In line with Behavioral Finance Theory, overconfidence is expected to significantly influence investment decision-making.

Herding behavior, in contrast, refers to investors' tendency to follow others rather than rely on independent judgment, especially in uncertain situations (Bikhchandani & Sharma, 2001). Prior research in Nepal indicates that herding significantly impacts investment decisions and contributes to irrational market trends (Risal & Khatiwada, 2019; Rana & Gautam, 2024). Thus, herding is also expected to play a significant role in shaping investor behavior.

While behavioral biases strongly affect investment decisions, financial literacy can help reduce their negative impact. It improves investors' ability to understand financial information and evaluate risk (Lusardi & Mitchell, 2014). However, biases may still persist even among financially literate individuals (Barberis & Thaler, 2003). Studies in Nepal confirm that financial literacy moderates—but does not eliminate—the effects of overconfidence and herding (Rana, 2019; Rana & Gautam, 2024). Therefore, financial literacy is included as a moderating variable in this study, forming the basis for the proposed hypotheses.

H₁: Overconfidence bias has a negative and significant effect on investment decision-making among individual investors.

H₂: Herding behavior has a negative and significant effect on investment decision-making among individual investors.

H₃: Financial literacy has a positive and significant effect on investment decision-making among individual investors.

H₄: Higher levels of financial literacy are associated with better investment decision-making compared to lower levels of financial literacy.

H₅: Behavioral biases (overconfidence bias and herding behavior) significantly influence investment decision-making even when controlling for financial literacy.

Conceptual framework and definition of the variables. The conceptual framework of this study is grounded in Behavioral Finance Theory, which posits that investment decisions are not solely determined by rational evaluation of risk and return, but are significantly influenced by psychological biases and cognitive limitations (Kahneman & Tversky, 1979; Barberis & Thaler, 2003). In line with this theoretical perspective, the framework illustrates the relationships among behavioral biases (overconfidence and herding behavior), financial literacy, and investment decision-making among individual investors in the Nepal Stock Exchange (NEPSE).

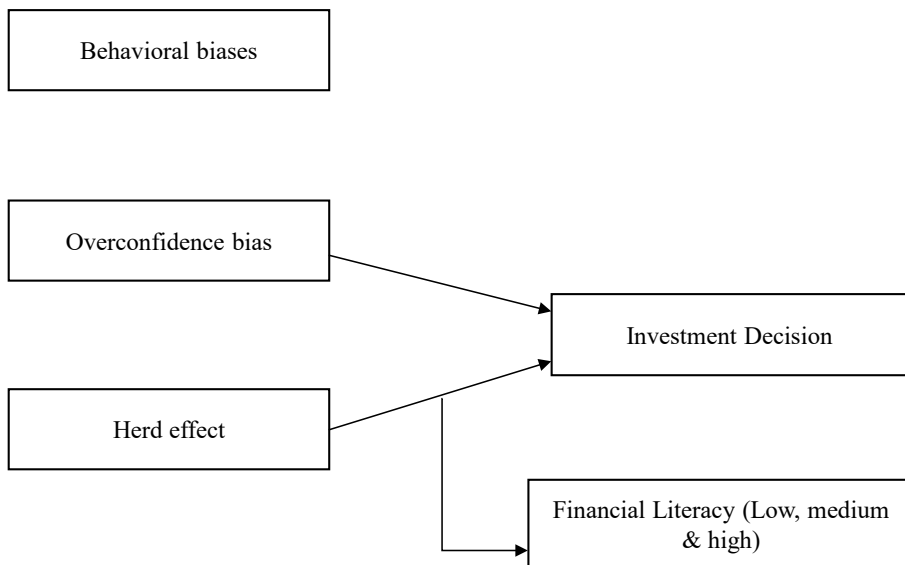
The proposed conceptual framework is theoretically justified by Behavioral Finance Theory, particularly Prospect Theory and heuristic-based decision models, which explain

why investors deviate from rational behavior under uncertainty (Kahneman & Tversky, 1979; Thaler, 1993). By integrating behavioral biases and financial literacy into a single framework, the model captures both psychological and cognitive dimensions of investment behavior. Furthermore, the framework is empirically grounded in Nepalese and international studies, making it contextually appropriate for examining investor behavior in an emerging capital market.

The framework proposes that overconfidence bias and herding behavior act as independent variables, exerting direct influence on investors' investment decisions, which serve as the dependent variable. In addition, financial literacy is incorporated as a moderating variable, reflecting its potential role in shaping the strength and direction of the relationship between behavioral biases and investment decisions. This structure recognizes that while financial knowledge may enhance decision quality, it does not fully eliminate the influence of behavioral biases, particularly in emerging markets such as Nepal.

Figure 1

Research framework of the study



Note: Barberis & Thaler, 2003

Behavioral biases. Overconfidence bias refers to investors' tendency to overestimate their knowledge, analytical skills, and ability to predict market movements, often resulting in excessive trading and suboptimal investment outcomes (Barber & Odean, 2001). Behavioral Finance Theory explains this bias as a cognitive error arising from self-attribution and illusion of control. Empirical studies in Nepal provide strong support for this construct, demonstrating that overconfidence significantly affects investment decisions among NEPSE investors (Thapa, 2024; Rana & Gautam, 2024). Accordingly, the framework assumes a direct relationship between overconfidence bias and investment decision-making.

Herding behavior represents investors' inclination to imitate the actions of others rather than rely on independent judgment, particularly during periods of market uncertainty or information asymmetry (Bikhchandani & Sharma, 2001). In the Nepalese stock market, herding behavior is especially prevalent due to limited access to timely information and heavy reliance on peer opinions and market rumors. Empirical evidence from Nepal confirms that herding behavior significantly influences investment decisions and often amplifies irrational market movements (Risal & Khatiwada, 2019; Rana, 2019). Therefore, the framework posits herding behavior as a key predictor of investment decision-making.

Financial literacy. Financial literacy is defined as the ability to understand financial concepts and apply such knowledge to make informed financial decisions (Lusardi & Mitchell, 2014). Within the conceptual framework, financial literacy is positioned as a controlled variable that influences the relationship between behavioral biases and investment decisions. Behavioral Finance Theory acknowledges that while financial knowledge can improve awareness and analytical capacity, cognitive biases often persist even among financially literate investors (Barberis & Thaler, 2003).

Empirical studies conducted in Nepal support this moderating role. Rana (2021) finds that financial literacy weakens the negative impact of herding and overconfidence on investment decisions but does not fully neutralize their effects. Similar findings are reported by Rana and Gautam (2024), indicating that financially literate investors are less susceptible to extreme bias-driven behavior, yet still influenced by psychological factors. Consequently, the framework reflects a conditional relationship, where financial literacy alters the magnitude rather than the existence of behavioral bias effects.

Investment decision making. Investment decision-making refers to the process by which investors select, buy, hold, or sell financial assets based on available information, perceived risk, and expected returns. Behavioral Finance Theory suggests that this process is inherently influenced by heuristics, emotions, and social interactions rather than purely rational evaluation (Kahneman & Tversky, 1979). Empirical evidence from NEPSE demonstrates that investment decisions are significantly shaped by behavioral biases, validating the relevance of this dependent construct in the framework (Rawat, 2023; Chand, 2024).

III. RESEARCH METHODOLOGY

This study employed a quantitative research design to examine the relationships among behavioral biases, financial literacy, and investment decision-making. A quantitative approach was chosen as it enables objective measurement, hypothesis testing, and generalization within the target population (Creswell, 2014). The study followed a cross-sectional design, where data were collected at a single point in time, making it suitable for analyzing existing behavioral patterns without requiring long-term observation (Sekaran & Bougie, 2016).

Primary data were collected using a structured questionnaire adapted from previously validated studies to ensure content validity and reliability (Hair et al., 2019). Responses for

behavioral constructs were measured using a Likert scale to capture investors' perceptions and tendencies. In contrast, financial literacy was assessed using an objective, knowledge-based approach rather than perception-based measures. This method evaluates respondents' actual understanding of financial concepts and is widely recognized as reliable (Lusardi & Mitchell, 2014). The questionnaire included questions on key investment concepts such as risk–return trade-off and diversification. Each correct response was scored, and total scores were used to classify respondents into low, medium, and high financial literacy levels. This approach reduces self-reporting bias and provides a more accurate measure of financial knowledge.

The study population consisted of retail investors in Tarakeswor Municipality, Nepal. Due to the absence of a clear sampling frame, convenience sampling was applied, which is commonly used in behavioral research where population access is limited (Malhotra, 2010). A total of 120 respondents were selected. This sample size meets Roscoe's (1975) guideline of 30–500 observations and exceeds the minimum requirement for meaningful statistical analysis (Sekaran & Bougie, 2016; Hair et al., 2019).

Reliability analysis was conducted to assess the internal consistency of the measurement items. Cronbach's alpha coefficient was used, as it is a widely accepted measure in behavioral research (Hair et al., 2019). The constructs—overconfidence bias, herding behavior, and investment decision-making—were tested separately. According to Nunnally and Bernstein (1994), values above 0.70 indicate acceptable reliability, while values above 0.80 reflect good consistency.

Table 1 shows that all constructs demonstrate acceptable reliability. Overconfidence bias recorded Cronbach's alpha of 0.801, indicating good internal consistency and reliable measurement of investors' overconfidence behavior. The herd effect achieved the highest reliability coefficient at 0.877, reflecting strong consistency among items measuring herding behavior. Similarly, the investment decision construct reported an alpha value of 0.791, exceeding the minimum acceptable threshold and indicating satisfactory reliability.

Table 1
Reliability results

S.N.	Variables	Cronbach's Alpha coefficient
1	Overconfidence bias	0.801
2	Herd effect	0.877
3	Investment decision	0.791

Since all values are above 0.70, the measurement scales are considered reliable and suitable for further statistical analysis. These results confirm that the questionnaire items are consistent and dependable, supporting the study's methodological rigor. Consequently, the data are robust enough to proceed with inferential analyses, including correlation and multiple regression using Jamovi, to test the proposed hypotheses.

IV. RESULTS AND DISCUSSION

Respondent's profile. In this study, financial literacy was measured using an objective, knowledge-based approach, rather than perception-based Likert scales. This method assesses respondents' actual understanding of fundamental financial concepts and is widely recognized as a valid and reliable approach in financial literacy research (Lusardi & Mitchell, 2014). The questionnaire included a set of knowledge-oriented questions related to investment principles, such as risk–return trade-off, diversification, and basic investment understanding. Each correct response was assigned a score, and the total score for each respondent was calculated by summing the correct answers.

Table 2
Respondent's profile

Demographic	Categories	Respondents	Percentage
Financial literacy level	Low	43	35.8
	Medium	40	33.3
	High	37	30.8
Academic qualification	Upto secondary level (SLC/SEE or below)	24	20
	Higher secondary (+2) or above	96	80
Average monthly income level	Below 30 K	60	50
	Above 30 K	60	50
Experience in financial investing	None	27	22.5
	Less than 1 year	36	30
	1-3 years	21	17.5
	More than 3 years	36	30

Based on the composite scores obtained, respondents were classified into low, medium, and high financial literacy levels, allowing meaningful comparison across different levels of financial knowledge. This classification approach has been commonly employed in empirical studies to examine how variations in financial literacy influence financial behavior and decision-making. The use of an objective scoring system minimizes self-reporting bias and provides a more accurate representation of respondents' financial knowledge. This table underlines the heterogeneous nature of respondents, essential for studying the interaction of behavioral finance elements with investment decisions.

Table 3
Descriptive statistics

Variables/ Statistics	Mean	Median	Std. Deviation	Variance
Overconfidence bias	2.91	3	0.826	0.683
Herd effect	3.2	3.33	0.908	0.825
Investment decision	3.19	3	0.934	0.872

Table 3 presents the descriptive statistics of the major variables used in the study, namely Overconfidence Bias, Herd Effect, and Investment Decision. The table reports the mean, median, standard deviation, and variance for each variable, which help to understand the central tendency and variability of the data.

The results show that Herd Effect has the highest mean value (Mean = 3.20), followed by Investment Decision (Mean = 3.19) and Overconfidence Bias (Mean = 2.91). This indicates that, on average, respondents demonstrate a slightly stronger tendency toward herd behavior compared to overconfidence bias when making investment decisions. The median values for the variables are close to their respective means, suggesting that the data distribution is relatively balanced without significant skewness. The median for Herd Effect is 3.33, while the median for both Overconfidence Bias and Investment Decision is 3.

In terms of variability, Investment Decision has the highest standard deviation (0.934) and variance (0.872), indicating that respondents' opinions regarding investment decisions vary more widely compared to the other variables. Herd Effect also shows moderate variability (SD = 0.908), whereas Overconfidence Bias has the lowest standard deviation (0.826), suggesting comparatively more consistent responses among participants. Overall, the descriptive statistics indicate moderate levels of overconfidence bias and herd behavior among respondents, with relatively similar central tendencies across the variables, while the variability suggests some diversity in respondents' perceptions and behaviors related to investment decisions.

Correlation analysis. Table 4 presents the Pearson correlation analysis among the key variables of the study: overconfidence bias, herd effect, and investment decision. The Pearson correlation coefficient measures the strength and direction of the relationship between the variables. The results indicate a strong positive and statistically significant relationship between overconfidence bias and herd effect ($r = 0.707$, $p < 0.001$). This suggests that individuals who exhibit higher levels of overconfidence bias are also more likely to display herd behavior in investment activities.

Table 4

Correlation analysis of overconfidence bias, herd effect, and investment decision

Variables		Overconfidence bias	Herd effect	Investment decision
Overconfidence bias	Pearson Correlation			
	Sig. (2-tailed)	1		
Herd effect	Pearson Correlation	0.707***		
	Sig. (2-tailed)	<.001	1	
Investment decision	Pearson Correlation	-0.461***	-0.468***	
	Sig. (2-tailed)	<.001	<.001	1
Hypothesis result		Rejected at 0.001 level	Rejected at 0.001 level	

***Correlation is significant at the 0.001 level (2 tailed).

However, the findings reveal a significant negative relationship between overconfidence bias and investment decision ($r = -0.461, p < 0.001$). This implies that higher overconfidence among investors may negatively influence the quality or rationality of their investment decisions. Similarly, herd effect also shows a significant negative correlation with investment decision ($r = -0.468, p < 0.001$). This indicates that investors who tend to follow the actions of others are more likely to make less optimal investment decisions.

All correlations are statistically significant at the 0.001 level (two-tailed), indicating a very strong level of statistical significance. Based on these results, the null hypotheses are rejected, confirming that there are significant relationships among the studied variables. Overall, the correlation analysis suggests that behavioral biases such as overconfidence and herd behavior play a significant role in influencing investors' decision-making processes.

Regression analysis. *Table 5* presents the results of the regression analysis examining the effect of overconfidence bias (OB) and financial literacy (FL) on investment decision-making among individual investors. The model includes financial literacy as categorical levels (Medium and High) with Low financial literacy as the reference category. The regression results indicate that the overall model is statistically significant. The F-statistic is 13.2 with a significance level of $p < 0.001$, suggesting that the independent variables collectively explain variation in investment decision-making. Additionally, the adjusted R^2 value of 0.218 indicates that approximately 21.8% of the variance in investment decision-making is explained by overconfidence bias and financial literacy in the model. Therefore, the model demonstrates acceptable explanatory power for behavioral finance research.

Table 5

Regression analysis of overconfidence bias and financial literacy on investment decisions

Coefficients ^a	Unstandardized		T	Sig.	F	Sig.	Model result	Adj. R Square
	Coefficients							
	B	Std. Error						
(Constant)	4.109	0.3314	12.4	<.001				
OB	-0.491	0.0888	-5.53	<.001				
FL:					13.2	<.001	Model is fit	0.218
Medium – Low	0.256	0.1751	1.46	0.146				
High – Low	0.33	0.1794	1.84	0.068				
Hypothesis result: Null hypothesis rejected at 0.001 level								

^a Dependent Variable: Investment decision

The regression coefficient for overconfidence bias ($B = -0.491, t = -5.53, p < 0.001$) is negative and statistically significant. This result indicates that higher levels of overconfidence bias lead to poorer or less optimal investment decision-making among individual investors. Specifically, a one-unit increase in overconfidence bias decreases investment decision quality by approximately 0.491 units, holding other variables constant.

This finding supports Hypothesis H₁, which proposed that overconfidence bias has a negative and significant effect on investment decision-making among individual investors. The result aligns with behavioral finance theory, which suggests that overly confident investors tend to overestimate their knowledge and underestimate risks, leading to suboptimal investment choices.

Conclusion Overall, the regression results highlight the significant role of overconfidence bias in influencing investment decisions, confirming its negative impact on investor behavior. Although financial literacy shows a positive relationship with investment decision-making, its effect is not statistically significant in this model. The findings emphasize the importance of addressing behavioral biases among investors, while suggesting that financial literacy alone may not be sufficient to significantly improve investment decisions.

Table 6 presents the results of the regression analysis examining the effect of herding behavior (HE) and financial literacy (FL) on investment decision-making among individual investors. Financial literacy is categorized into medium and high levels, with low financial literacy serving as the reference category. The regression model is statistically significant. The F-statistic is 16.5 with a significance level of $p < 0.001$, indicating that the independent variables included in the model collectively explain variation in investment decision-making. Furthermore, the adjusted R² value is 0.217, suggesting that approximately 21.7% of the variance in investment decision-making is explained by herding behavior and financial literacy. The model result indicates that the model is fit and suitable for interpretation.

Table 6

Regression analysis of herd effect and financial literacy on investment decisions

Coefficients	Unstandardized		T	Sig.	F	Sig.	Model result	Adj. R Square
	Coefficients							
	B	Std. Error						
(Constant)	4.16	0.3414	12.19	<.001				
HE	-0.427	0.0775	-5.51	<.001				
FL:					16.5	<.001	Model is fit	0.217
Medium – Low	0.271	0.1753	1.55	0.125				
High – Low	0.225	0.1823	1.23	0.22				
Hypothesis result: Null hypothesis rejected at 0.001 level								

^a Dependent Variable: Investment decision

The regression coefficient for herding behavior ($B = -0.427$, $t = -5.51$, $p < 0.001$) is negative and statistically significant. This result indicates that herding behavior negatively affects investment decision-making among individual investors. Specifically, an increase of one unit in herding behavior reduces the quality of investment decisions by 0.427 units, holding other variables constant. This finding suggests that investors who tend to follow the decisions of others rather than relying on their own analysis are more likely to make less rational or suboptimal investment decisions. Therefore, Hypothesis H₂, which states

that herding behavior has a negative and significant effect on investment decision-making among individual investors, is supported.

Financial literacy was tested using two categories relative to the low financial literacy group. The coefficient for medium financial literacy ($B = 0.271$, $t = 1.55$, $p = 0.125$) is positive but not statistically significant. Similarly, the coefficient for high financial literacy ($B = 0.225$, $t = 1.23$, $p = 0.220$) is also positive but statistically insignificant. These results indicate that although higher levels of financial literacy appear to be associated with improved investment decision-making, the relationship is not statistically significant in this model.

The regression results demonstrate that herding behavior significantly and negatively influences investment decision-making, supporting the behavioral finance argument that investors who imitate others may make irrational or poorly informed investment choices. Although financial literacy shows a positive relationship with investment decisions, its effect is not statistically significant. Moreover, the current model does not provide evidence that financial literacy moderates the relationship between behavioral biases and investment decisions.

Hypothesis 4 examines the relationship between financial literacy and investment decision-making. The regression results show positive coefficients for both medium and high financial literacy levels, indicating that investors with higher financial literacy tend to make better investment decisions compared to those with low financial literacy. However, since the p-values exceed the 0.05 significance level, the relationship is not statistically significant. Therefore, Hypothesis 4 is only partially supported, as financial literacy demonstrates a positive but insignificant effect on investment decisions.

Hypothesis 5 assesses the impact of behavioral biases on investment decision-making while controlling for financial literacy. The results reveal that both overconfidence bias and herding behavior have significant negative effects on investment decisions, with p-values less than 0.001. This suggests that these biases adversely influence investor behavior regardless of financial literacy levels. Hence, Hypothesis 5 is supported, confirming that behavioral biases play a significant role in shaping investment decisions.

Discussion. This study examined the influence of behavioral biases, specifically overconfidence bias and herding behavior, along with financial literacy, on investment decision-making among individual investors. The regression results reveal that both overconfidence bias and herding behavior have a significant negative effect on investment decision-making, while financial literacy shows a positive but statistically insignificant relationship with investment decisions. These findings contribute to the growing body of research within behavioral finance, which emphasizes the role of psychological factors in financial decision-making (Kahneman & Tversky, 1979).

The finding that overconfidence bias negatively affects investment decisions is consistent with behavioral finance theory and previous empirical research. According to overconfidence theory, investors often overestimate their knowledge and ability to predict market outcomes,

leading to excessive trading and poor investment choices (Barber & Odean, 2001). The significant negative coefficient for overconfidence bias in this study suggests that investors who display higher levels of confidence may rely more on subjective judgment rather than objective financial analysis. Similar findings have been reported by Glaser and Weber (2007) and Pompian (2012), who argued that overconfident investors tend to underestimate risk and ignore contradictory information, resulting in suboptimal financial decisions.

The results also show that herding behavior significantly and negatively influences investment decision-making, indicating that investors who follow the decisions of others without independent evaluation are more likely to make less rational investment choices. This finding supports the theory of herd behavior in financial markets, which suggests that individuals often imitate the actions of others when faced with uncertainty (Banerjee, 1992). Previous empirical studies, such as Bikhchandani, Hirshleifer, and Welch (1998) and Chang, Cheng, and Khorana (2000), similarly found that herding behavior can lead investors to disregard fundamental information and make decisions based on market trends or social influence.

Although financial literacy shows a positive relationship with investment decision-making, its effect is not statistically significant in the regression models. This result partially contrasts with earlier studies suggesting that financially literate individuals tend to make more rational financial decisions because they possess greater knowledge of financial concepts and risk management (Lusardi & Mitchell, 2014). However, some studies have also suggested that financial knowledge alone may not fully eliminate behavioral biases in investment decisions (Pompian, 2012). Therefore, the findings of this study suggest that while financial literacy may contribute to improved decision-making, it may not be sufficient to completely offset the impact of psychological biases.

Overall, the results address the main research objectives by demonstrating that behavioral biases play a more significant role than financial literacy in influencing investment decision-making among individual investors. The study highlights the importance of considering psychological and behavioral factors when analyzing investor behavior. From a practical perspective, these findings imply that investor education programs should not only focus on improving financial literacy but also aim to increase awareness of behavioral biases that may affect investment choices.

V. CONCLUSION AND IMPLICATIONS

Conclusion. This study examined the influence of overconfidence bias, herding behavior, and financial literacy on investment decision-making among individual investors. The regression results indicate that both overconfidence bias and herding behavior have a significant negative effect on investment decisions, suggesting that behavioral biases play a critical role in shaping how investors make financial choices. Investors who are overly confident about their knowledge or who rely heavily on the actions of others tend to make less rational investment decisions. Although financial literacy shows a positive relationship with investment decision-making, the relationship is not statistically significant. These findings

suggest that improving financial knowledge alone may not be sufficient to overcome the psychological biases that influence investor behavior. In relation to the research objectives, the study confirms that behavioral factors significantly affect investment decision-making, highlighting the importance of considering psychological aspects alongside financial knowledge when analyzing investor behavior.

Implications in the Nepalese context. In the Nepalese financial market, where the participation of individual investors in the stock market has increased significantly in recent years, these findings have important practical implications. Many investors in Nepal rely on informal information sources, peer influence, and market rumors, which can encourage herding behavior and overconfidence. Therefore, policymakers, financial institutions, and regulatory bodies such as the Securities Board of Nepal (SEBON) should focus on developing investor education programs that not only improve financial literacy but also raise awareness about behavioral biases and their impact on investment decisions. Additionally, institutions such as the Nepal Stock Exchange (NEPSE) and financial service providers could organize training, seminars, and digital learning initiatives to help investors make more informed and independent investment choices. Strengthening financial education, promoting transparent information dissemination, and encouraging analytical investment approaches can help improve the quality of investment decisions and contribute to the long-term development and stability of Nepal's capital market.

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