

Psychological Bias on Investment Decision Making Behaviour among Nepalese Investors

Durga Maya Bhattarai

MBS Graduate, Mahakavi Devkota Campus

Bikash Rana

Lecturer, Mahakavi Devkota Campus

Abstract

This study investigates the impact of psychological biases on investment decision-making behaviour among Nepalese investors. Behavioural finance theories suggest that investors are often influenced by cognitive biases, leading to suboptimal financial decisions. This research aims to identify and assess the effects of key biases, including overconfidence, loss aversion, herding behaviour, recency bias, and self-attribution bias, on investment choices in Nepal. The study adopts a quantitative research design, utilizing a structured survey to collect data from 385 respondents. The data is analysed using statistical techniques such as descriptive analysis, correlation analysis, regression analysis, and hypothesis testing to determine the relationship between psychological biases and investment behaviour. The findings reveal that overconfidence bias, loss aversion, herding behaviour, and recency bias have a statistically significant impact on investment decision-making, whereas self-attribution bias does not exhibit a notable influence. Among these, herding behaviour has the strongest effect, indicating that Nepalese investors tend to rely heavily on market trends rather than independent decision-making. The results contribute to the field of behavioural finance by providing empirical evidence on how psychological biases shape investment behaviour. This study underscores the importance of financial literacy programs and investor awareness initiatives to mitigate the adverse effects of biases and encourage rational investment decisions. The findings also offer valuable insights for policymakers and financial institutions in designing investor friendly policies and educational interventions.

Keywords: Behavioural finance, psychological biases, investment decision-making, overconfidence bias, Nepalese investors.

Introduction

Investment decision-making is an important part of financial activities, where individuals allocate their money into different assets to earn returns while managing risk. Earlier financial theories, especially the Efficient Market Hypothesis, assumed that investors are rational and always make decisions based on logic and complete information (Fama, 1970). However, in reality, investors often behave differently. Their decisions are influenced by emotions, personal beliefs, and psychological factors. This led to the development of behavioural finance, which explains how human behaviour affects financial decisions. The work of Kahneman and Tversky (1979) introduced Prospect Theory, showing that people react differently to gains and losses, often leading to irrational decisions.

In the context of Nepal, understanding psychological biases is very important because the financial market is still developing and influenced by various economic, social, and cultural factors. Many Nepali

investors do not always rely on proper financial analysis and may be influenced by limited information or market rumours. Biases such as overconfidence, loss aversion, herd behaviour, anchoring, and recency bias play a major role in shaping their investment decisions. For example, investors may follow others without proper research or may avoid risk due to fear of loss. Studies have shown that investors in developing markets often depend on simple decision-making shortcuts because of less access to reliable information and less developed financial systems (Adaramola et al., 2022).

Nepal's investment environment has changed over time due to economic liberalization, foreign investment, and increasing remittances. The establishment of the Nepal Stock Exchange (NEPSE) in 1994 created new opportunities for investors, but the market has also faced challenges such as political instability and economic uncertainty (Khatiwada, 2021). Events like the COVID-19 pandemic showed how quickly the market can fluctuate, where the NEPSE index dropped significantly and later recovered within a short period (Nepal Rastra Bank, 2021). Such situations often create panic among investors and influence their decisions emotionally rather than rationally.

Previous studies in Nepal have highlighted the importance of behavioural biases in investment decisions. For example, conservatism has been found to influence investors positively, as many prefer safer investment options in uncertain conditions (Giri & Adhikari, 2023). Other studies have shown that biases such as overconfidence, anchoring, loss aversion, and availability affect investment choices (Gyanwali & Neupane, 2021). Emotional stability also plays a role, as it can either increase or reduce the impact of these biases (Gulzar, 2023). However, despite these findings, there is still limited research that clearly explains how these biases affect investment performance in Nepal.

In recent years, many individuals in Nepal have entered the investment market, but a large number of them have faced losses or failed to achieve consistent returns. Although there are several possible reasons for this, the role of psychological biases has not been fully explored. After economic liberalization, investment opportunities increased, but at the same time, many investors struggled to maintain profitability (Nepal Stock Exchange, 2020). This raises important questions about why some investors succeed while many others fail. It is possible that psychological biases, such as overconfidence or herd behaviour, lead investors to make poor decisions.

For instance, during market downturns, many investors panic and sell their investments, resulting in losses. Similarly, overconfident investors may take excessive risks without proper analysis. These behaviours indicate that investment decisions are not always rational and are strongly influenced by emotions. Public opinion in Nepal often blames factors such as lack of financial literacy, poor market analysis, and political instability for investment failure. However, these explanations have not been fully supported by research (Ministry of Finance Nepal, 2021).

Investment failure not only leads to financial loss but also affects the mental well-being of investors. Stress, fear, and regret can influence future decisions and create a cycle of poor investment behaviour (Kahneman, 2011). At the same time, successful investors are often those who can control their emotions and manage their psychological biases effectively. Studies suggest that investment performance is closely related to how well individuals handle these biases (Barberis & Thaler, 2003).

Although many international studies have confirmed the impact of psychological biases on investment decisions, there is still a lack of detailed research in the Nepali context. It is not clearly

known which biases are most common among Nepali investors or how strongly they affect investment performance. Therefore, it is important to examine the relationship between psychological biases and investment decision-making behaviour in Nepal. This study aims to fill this gap by identifying the major biases affecting investors and understanding how they influence investment outcomes. By doing so, it can help improve financial awareness, support better decision-making, and contribute to a more stable investment environment in Nepal.

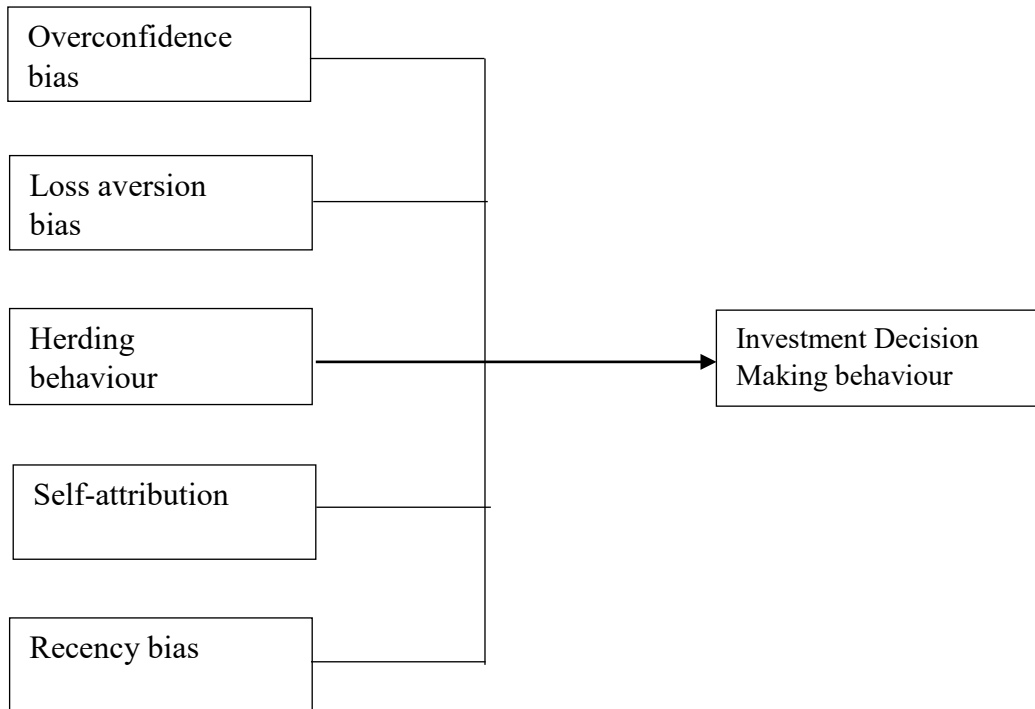
- Research question: Does psychological biases affect investment decision-making behaviour among Nepalese investors?
- Objective: To examine how psychological biases influence the investment decisions of individual investors in Nepal.

Literature review

Behavioural bias theory, developed in the early 1970s by Daniel Kahneman and Amos Tversky, combines ideas from psychology and economics to explain how people actually make financial decisions. Instead of assuming that investors are always rational, this theory shows that real-life decisions are often influenced by emotions and mental shortcuts. In this context, investment decision-making is considered the dependent variable, while different psychological biases act as independent variables that shape investor behaviour. These biases lead investors to behave in ways that are not always logical, which can affect their financial outcomes. One of the most important and widely studied biases is overconfidence bias. This occurs when investors believe too strongly in their own knowledge, skills, or ability to predict the market. Because of this, they often trade more frequently, take higher risks, and ignore possible uncertainties. Research in developed countries shows that overconfident investors usually misjudge market conditions and end up with poorer investment performance (Kumar & Prince, 2023). Similarly, Busch et al. (2016) explain that overconfidence can also influence larger economic decisions, sometimes leading to unsustainable outcomes. Another study using SEM-PLS found that overconfidence increases risk-taking behaviour, especially among investors with high risk tolerance (Sudirman et al., 2023). In developing countries, the effect of overconfidence bias is also very strong. For example, a study conducted in India found that financial literacy can reduce the negative impact of overconfidence because educated investors are better at understanding risks (Jain et al., 2023). In Indonesia, emotional factors were found to increase the illusion of control among new investors, pushing them toward risky decisions (Jain & Kesari, 2023). In Bhutan, adopting sustainable development practices helps reduce overconfidence in traditional economic thinking (Banerjee et al., 2013). In Nepal, the situation is even more challenging due to political instability and market uncertainty. Studies show that many Nepali investors are influenced by overconfidence, which highlights the importance of financial literacy programs to improve their investment decisions (Subedi & Bhandari, 2024; Subedi, 2023). Another important bias is loss aversion, which means that investors feel the pain of losses more strongly than the happiness of gains. Because of this, they often hold onto losing investments for too long, hoping to avoid realizing a loss, and sell profitable investments too quickly to secure gains. Studies from different countries confirm that loss aversion leads to conservative and sometimes irrational decisions (Pratiwi & Hariyanto, 2024; Amudha & E, 2024). Research among young investors also shows that this bias makes them more risk-averse (Pughethaa & Deepa, 2024). In developing countries like India, loss aversion can even stop people from investing in beneficial projects such as green housing because they fear financial

loss (Sharmila Devi & Perumandla, 2023). In South Asian countries like Pakistan, loss aversion, along with herding and regret aversion, has a strong influence on investment decisions (Jain et al., 2020; Ahmed et al., 2023). However, some studies show that its impact may vary depending on the situation. For example, research on women entrepreneurs in Karachi found that loss aversion was not always a significant factor (Qamar & Lodhi, 2023). In Nepal, loss aversion is also very common. A study conducted in Chitwan found that investors are highly influenced by emotional biases, including loss aversion, which affects their decision-making process (Sapkota, 2023). Herding behaviour is another key bias where investors follow the actions of others instead of making their own independent decisions. This often happens when investors believe that others have better information. In developed markets, herding behaviour can increase market volatility and even create price bubbles (Balcilar et al., 2014; Barber et al., 2009). Research in European countries also shows that investors sometimes follow global market trends rather than relying on their own analysis (Belgacem & Lahiani, 2013). In developing countries like India and Pakistan, herding behaviour is very common, especially during uncertain situations such as the COVID-19 pandemic, leading to poor investment outcomes (Gill et al., 2022; Kiruba & Vasantha, 2021). In Nepal, herding behaviour is influenced by social factors and the level of financial knowledge. Many investors depend on others' opinions rather than doing their own research, which can create instability in the market (Poudel et al., 2024; Risal & Khatiwada, 2019). However, some recent studies suggest that herding may not always have a strong impact compared to other biases like overconfidence and anchoring (Gurung et al., 2024). This shows that investor behaviour in Nepal is complex and influenced by multiple factors. Self-attribution bias is another important psychological factor. In this case, investors believe that their success is due to their own skills, while they blame failures on external factors such as market conditions. This increases their confidence and encourages them to take more risks. Studies in developed markets show that this bias leads to excessive trading and lower returns (Hoffmann & Post, 2014). In developing countries, where financial literacy is often lower, this bias is even more common and leads to irrational investment decisions (Mittal, 2022).

Recency bias is also a significant factor that affects investment decisions. It refers to the tendency of investors to give more importance to recent events and ignore long-term information. In developed markets like the United States, investors often react quickly to recent news, which increases market volatility (Cambridge Core, 2023). Similarly, in developing countries such as India and Indonesia, investors are heavily influenced by the latest information, leading to frequent changes in their investment strategies (Francis, 2023). Overall, the literature clearly shows that psychological biases such as overconfidence, loss aversion, herding behaviour, self-attribution, and recency bias play a major role in shaping investment decisions across both developed and developing countries, including Nepal. These biases often lead to irrational behaviour and poor financial outcomes. However, one common solution highlighted in many studies is financial literacy. When investors are more educated and aware, they are better able to understand risks, control their emotions, and make more rational decisions. Therefore, improving financial education and awareness is essential for reducing the negative effects of these biases and helping investors achieve better financial results.

Conceptual framework**Independent Variable****Hypothesis**

- Hypothesis 1 (H1): Overconfidence bias significantly affects investment decision making behaviour among Nepalese investors.
- Hypothesis 2 (H2): Loss aversion bias significantly affects investment decision making behaviour among Nepalese investors.
- Hypothesis 3 (H3): Herding behaviour significantly affects investment decision making behaviour among Nepalese investors.
- Hypothesis 4 (H4): Self-attribution bias significantly affects investment decision making behaviour among Nepalese investors.
- Hypothesis 5 (H5): Recency bias significantly affects investment decision making behaviour among Nepalese investors.

Research Methodology

This study uses a descriptive research design to understand how psychological biases affect investment decisions in Nepal. The main goal is to clearly describe how investors behave when influenced by biases such as overconfidence, loss aversion, herding, self-attribution, and recency bias. To do this, the study collects quantitative data through structured surveys from active investors.

The population of the study includes all individual investors in Nepal, based on data from SEBON. Out of more than 5.8 million DMAT holders, about 842,437 are active investors. Since studying all investors is

not practical, a sample of around 384 respondents is selected using standard statistical methods, ensuring reliable and generalizable results.

A stratified random sampling method is used to make sure different groups (based on age, gender, and location) are properly represented. Data is collected through both online and physical surveys to reach more participants and improve response rates.

The study mainly uses primary data, collected directly from investors using a structured questionnaire. The questionnaire includes sections on demographic details, investment behaviour, and questions designed to measure different psychological biases. A Likert scale (1–5) is used to understand the level of agreement or intensity of these biases.

The variables in the study are measured based on well-known behavioural finance theories and previous research. This helps ensure that the study is based on a strong academic foundation.

Before conducting the full study, a pilot study was carried out with around 38–40 participants (about 10% of the sample size). This helped test whether the questions were clear, understandable, and effective. It also helped identify any problems in data collection. Based on the pilot study, necessary improvements were made to ensure better accuracy and reliability in the final research.

Overall, this approach helps the study collect accurate, reliable, and meaningful data to understand how psychological biases influence investment decisions in Nepal.

Regression model

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

Where

Y= Investment decision (dependent variable)

β_0 = intercept of the model (the value of Y when all independent variables are zero) $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are the coefficients for the independent variables, representing their impact on the dependent variable.

X_1 =overconfidence bias, X_2 =Loss aversion bias, X_3 = Herding behaviour, X_4 =Self Attribution Bias, X_5 = Recency Bias. ϵ = The error term

Results and finding

Respondent's gender profile

The gender distribution indicates a nearly balanced representation as Table 1, with 55.8% male and 44.2% female participants. This suggests that the study effectively captures perspectives from both genders, allowing for a well-rounded analysis.

Table 1 Distribution in terms of gender

	N	%
Male	215	55.8%
Female	170	44.2%

Source: Using SPSS software

Respondent's age profile

According to the frequency table, 27.8% of respondents are below 30 years old, 36.4% fall within the 31 – 40 age group, and 35.8% are above 41 years. This distribution suggests a fairly balanced representation across different age categories, with the highest percentage belonging to the 31 – 40 age group.

Table 2 Distribution in terms of age

	N	%
Less than 30	107	27.8%
31-40	140	36.4%
More than 41	138	35.8%

Source: Using SPSS software

Respondent's educational background

The data in Table 3 shows 19.2% of respondents have completed high school or below, 19.5% hold a bachelor's degree, 21.0% have attained a master's degree, 16.6% possess a doctorate, and 23.6% fall into other categories. This data implies that a significant portion of investors have higher education, with the highest representation in the "others" category.

Table 3 Distribution in terms of educational background

	N	%
High school or below	74	19.2%
Bachelor	75	19.5%
Master	81	21.0%
Doctorate	64	16.6%
Others	91	23.6%

Source: Using SPSS software

Respondent's occupational profile

Occupational profile shows that 27.3% of respondents are engaged in business, 22.3% are employed, 24.9% work in the service sector, and 25.5% belong to other occupations. The results suggest that investors in the study come from diverse professional backgrounds, with a nearly equal distribution among the four occupational categories.

Table 4 distribution in terms of occupation

	N	%
Business	105	27.3%
Employed	86	22.3%
Service	96	24.9%
Others	98	25.5%

Source: Using SPSS software

Respondent's income profile

According to the frequency table, 22.1% of investors earn below 200,000, 28.8% fall within the 200,001–400,000 range, 29.25.7% earn between 400,001–1,000,000, and 23.4% have an annual income exceeding 1,000,000. This distribution highlights that the majority of investors fall within the middle income bracket (200,001–400,000), with a balanced representation across different income levels.

Table 5 distribution in terms of income

	N	%
Below200000	85	22.1%
200001-400001	111	28.8%
400001-1000000	99	25.7%
Above1000000	90	23.4%

Source: Using SPSS software

Descriptive statistics

Table 6 Descriptive statistic

		IDMB	OB	LA	HB	SAB	RB
N	Valid	385	385	385	385	385	385
	Missing	0	0	0	0	0	0
Mean		3.4052	3.2883	3.0552	3.2468	2.9383	3.4812
Median		3.4444	3.5000	2.7500	3.2500	3.7500	3.7500
Std. Deviation		.80595	.78020	.80407	.80272	.84216	.87712
Minimum		1.00	1.00	1.00	1.00	1.00	1.00
Maximum		5.00	5.00	5.00	5.00	5.00	5.00

The results show that investors have a moderate to high level of involvement in investment decision-making. Among the psychological biases, recency bias has the strongest influence, indicating that investors rely heavily on recent experiences. Overconfidence bias and herding behaviour are also significant, showing that investors often overestimate their knowledge and follow market trends. Loss aversion has a moderate impact, as investors tend to avoid losses. However, self-attribution bias has the least influence, suggesting that external advice and opinions do not play a major role in investment decisions.

Reliability analysis

Table 7 Reliability test

Cronbach's Alpha	N of Items
.875	6

The reliability of the dataset was assessed using Cronbach's Alpha, which resulted in a value of 0.875 across six key variables. This high value suggests strong internal consistency, confirming that the data collection instrument is reliable and produces consistent results. A reliability score above 0.7 is generally considered acceptable, and the observed value of 0.875 implies that the survey items effectively measure the intended constructs.

Correlation analysis**Table 8 Correlation**

	IDMB	OB	LA	HB	SAB	RB
IDMB	1					
OB	.529	1				
LA	.510	.513	1			
HB	.564	.629	.669	1		
SAB	.424	.522	.655	.633	1	
RB	.489	.615	.460	.527	.379	1

Source: Using SPSS software

The correlation analysis explores the relationships between key investment-related variables, revealing statistically significant associations at the 0.01 level (2-tailed). Investment Decision-Making Behaviour (IDMB) demonstrates a positive correlation with Overconfidence Bias (OB) ($r = 0.529$, $p < 0.01$), suggesting that heightened confidence in one's investment decisions significantly influences overall financial choices. Additionally, IDMB is positively correlated with Loss Aversion (LA) ($r = 0.510$, $p < 0.01$), Herding Behaviour (HB) ($r = 0.564$, $p < 0.01$), and Recency Bias (RB) ($r = 0.489$, $p < 0.01$), indicating that psychological biases play a crucial role in shaping investor behaviour. These findings highlight the impact of emotional and cognitive tendencies on investment decision-making. Furthermore, Self-Attribution Bias (SAB) exhibits moderate correlations with other behavioural factors, including OB ($r = 0.522$, $p < 0.01$) and LA ($r = 0.655$, $p < 0.01$), confirming that investors are influenced by external advisory opinions and social interactions when making financial decisions. These results underscore the significance of psychological and social factors in shaping investment behaviour.

Regression analysis**Table 9 Model summary**

Model	R	R Square	Adjusted Square	RStd. Error of the Estimate	Durbin-Watson
a. Predictors: (Constant), RB, SAB, OB, LA, HB	.637	.406	.398	.62547	1.521

Dependent Variable : IDMB

Source: Using SPSS software

The table represents the results of a multiple regression analysis where the dependent variable is IDMB and the independent variables are RB, SAB, OB, LA, and HB. The correlation coefficient (R) is 0.637, indicating a moderate positive relationship between the observed and predicted values of IDMB. The R Square value of 0.406 shows that approximately 40.6% of the variation in IDMB can be explained by the combined influence of the five predictors. The Adjusted R Square, slightly lower at 0.398, accounts for the number of predictors and provides a more accurate estimate of model performance. The standard error of the estimate is 0.62547, suggesting that the average difference between the predicted and actual values is about 0.63 units. Additionally, the Durbin-Watson statistic is 1.521, which is below the ideal value

of 2. This indicates a possible presence of positive autocorrelation in the residuals, meaning the errors may be somewhat correlated with each other rather than random. Overall, the model demonstrates a reasonable level of explanatory power, though there may be some issues to consider regarding the independence of residuals.

Table 10 ANOVA table

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	101.161	5	20.232	51.716	<.001
	Residual	148.271	379	.391		
	Total	249.432	384			

Dependent Variable : IDMB

a. Predictors: (Constant), RB, SAB, OB, LA, HB

Source: Using SPSS software

The results of the ANOVA test indicate that the regression model is statistically significant, with an F-statistic of 51.716 and a significance value of $p < 0.001$. This confirms that the model effectively explains variations in Investment Decision-Making Behaviour (IDMB).

Table 11 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	Constant	.920	.160		5.765	<.001		
	OB	.191	.059	.158	3.216	.001	.476	2.101
	LA	.183	.059	.182	3.096	.002	.453	2.207
	HB	.248	.063	.247	3.967	<.001	.405	2.472
	SAB	-.014	.054	-.015	-.266	.790	.489	2.043
	RB	.154	.048	.168	3.232	.001	.581	1.721

Dependent Variable: IDMB

Source: Using SPSS software

The regression results show that the model is statistically significant and explains investment decision-making behaviour well. Overconfidence, loss aversion, herding behaviour, and recency bias all have a positive and significant effect on investment decisions, with herding behaviour having the strongest influence. However, self-attribution bias has no significant effect. Also, there is no multicollinearity problem among the variables.

Hypothesis testing

The hypothesis that has been stated for the study is tested in this section. The hypothesis are based on the relationship of the direct variables and the independent variables Table 12 Result of hypothesis

Table 12 Result of hypothesis

Hypothesis	Statement	Result
H1	Overconfidence bias has a significant impact on investment decision-making behavior (IDMB).	Accepted ($\beta = 0.185$, $p = 0.001$)
H2	Loss aversion significantly influences investment decision making behavior.	Accepted ($\beta = 0.182$, $p = 0.002$)
H3	Herding behavior has a significant effect on investment decision making.	Accepted ($\beta = 0.247$, $p < 0.001$)
H4	Self-attribution bias significantly influences investment decision making.	Rejected ($\beta = -0.015$, $p = 0.790$)
H5	Recency bias significantly affects investment decision-making behaviour.	Accepted ($\beta = 0.168$, $p = 0.001$)

The hypothesis results show that overconfidence, loss aversion, herding behaviour, and recency bias significantly influence investment decisions, with herding having the strongest effect, while self-attribution bias has no significant impact.

Conclusion and Recommendation

This study shows that psychological biases play an important role in shaping investment decisions among Nepalese investors. The data reveals that most investors are adults aged 31–40, with slightly more male participants than female, and people from different educational and occupational backgrounds are involved in investing.

The results highlight that investors are strongly influenced by their emotions and thinking patterns. Among all biases, herding behaviour has the greatest impact, meaning many investors follow market trends or the actions of others instead of making independent decisions. Overconfidence bias is also common, as investors often believe too much in their own knowledge and take higher risks. Recency bias shows that investors give more importance to recent market events when making decisions. Loss aversion also affects behaviour, as investors try to avoid losses, sometimes making cautious or irrational choices. However, self-attribution bias was found to have little or no effect, suggesting that investors do not heavily depend on external advice or blame others for outcomes.

The study also confirms that these psychological factors are statistically significant and explain a good portion of investment behaviour. This means that investment decisions are not always fully rational but are influenced by human emotions and biases.

These findings are useful for different groups. For individual investors, understanding these biases can help them make better and more rational decisions. Financial advisors can use this knowledge to guide clients and reduce emotional decision-making. Policymakers can improve financial education and create awareness programs to promote smarter investing and reduce market instability.

Overall, the study highlights that behavioural factors are very important in Nepal's financial market. By becoming aware of these biases and managing them properly, investors can improve their financial decisions, and the market can become more stable and efficient.

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