Cognitive Biases on Investment Decisions in the Nepalese Stock Market

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DOI: https://doi.org/10.3126/jnbs.v17i1.75316

Received on 6 July 2024

Accepted on 27 November 2024

ABSTRACT

This paper analyzes how behavioral biases impact investor decision-making regarding investment opportunities in Nepal. Purposive sampling was adopted, with participants comprising investors in the Nepalese stock market. An explanatory research design was used, employing a quantitative data collection method. The analysis was conducted using the structural equation modeling approach with the SPSS Amos program. The results demonstrated high reliability, discriminant validity, and convergent validity of the developed scale. Behavioral biases such as herding behavior, overconfidence, anchoring, and the disposition effect were found to have positive influences on investment decisions. These findings highlight the need to reduce biases in investment strategies to enhance the quality of decision-making. By incorporating Nepalese market data, this study addresses a significant gap in the literature on behavioral finance. It also provides valuable insights for investors, improving their perceptions and decision-making processes.

Keywords: Anchoring bias, behavioral finance, disposition effect, herding behavior, investment decision-making

1. INTRODUCTION

The process of making investment decisions in the stock market is complex and is influenced by a variety of illogical and logical factors. The Efficient Market Hypothesis (EMH) asserts that investors are rational actors who rely solely on logical analysis and the facts at their disposal (Fama, 1970). However, often run counter to this theory as it shows that many times investors stray from reason because of other psychological factors. Behavioral biases can have a major influence on investing choices, hence producing less-than-ideal results. An interdisciplinary field that combines psychology and finance, behavioral finance seeks to understand the psychological factors driving investor behavior.

Cognitive biases are regular patterns of judgment and decision-making that deviate from reason because of mental shortcuts that our brains use. These biases influence our decision-making and information-processing processes, often resulting in erroneous thinking (Eysenck & Keane, 2023). This research shows how cognitive biases influence judgment, therefore challenging accepted wisdom on money (Thaler, 1993). Market performance and investment outcomes are

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affected by herd attitude, overconfidence, anchoring, disposition effect and other systematic judgment mistakes (Barberis & Thaler, 2003). The overconfidence of investors causes them to trade too much and not perform well (Barber & Odean, 2001). Anchoring bias is the dependence on arbitrary reference points that could distort pricing and valuation choices (Tversky & Kahneman, 1974). Kahneman and Tversky (1979) introduced Prospect Theory that indicates investors suffer more from losses than from profits, which causes risk-averse behavior that could result in lost possibilities. Even if investors are making rational judgments, they may become caught up in the herd mentality and cause market crashes and surges (Banerjee, 1992). Understanding these logical fallacies is critical for seasoned investors and those just starting out in the market. Investors may enhance their decision-making procedures by realizing and reducing the effect of prejudices, producing better financial results. Moreover, portfolio managers and financial consultants may create plans to assist customers in overcoming prejudices and choosing their investments with better knowledge.

These behavioral biases affect the investment decisions much more in developing economies like Nepal. An arrogant investor relies too much own judgment about the stock market's trends and to make unsound decisions, more often performs poorly (Baker & Nofsinger, 2022). These effects play key roles in the investment decision making of investors. Anchoring is the tendency to place substantial importance on initial information. This may lead to the preservation of stale reference information and the actual distortion of impressions (Tversky & Kahneman, 2023). It distorts actual portfolios and creates a worse market inefficiency; the disposition effect involves the tendency to sell equities that have per formed well early and hold the worst ones far too long (Cervellati et al., 2024). Herding behavior means people follow others and may create mob like action of the market, volatility and surge (Sunar et al., 2024). These prejudices raise a critical research question: To what extent go the disposition effect, overconfidence, herding and anchoring affect stock market decisions in Nepal?

The aim of this research article is to advance the literature on behavioral finance by shedding light on the cognitive mechanisms that underlie the manifestation of the bias and aggressive investment behavior. The application is designed to identify the necessary information to support the stock market investment decision of citizens.

2. REVIEW OF LITERATURE

2.1 Theoretical Review

Von Neumann and Morgenstern (1944) developed the theoretical framework, rational choice theory proposes that investors should make choices that maximize their anticipated utility based on the information that is accessible to them. Behavioral finance, on the other hand, proposes that these choices are heavily influenced by biases such as overconfidence, anchoring, the disposition effect and herding behavior, which often result in departures from optimum investment strategies (Barberis & Thaler, 2003). Efficient Market Hypothesis (EMH) hold that investors are logical agents that make decisions entirely based on the information that is within their reach and logical analysis (Fama, 1970). Barber and Odean (2001) and De Bondt and Thaler (1995) found that overconfident investors often participate in more frequent trading, therefore resulting in higher transaction costs and lower net returns. People often show too high self-assessments in several spheres, including finance.

Psychologists Kahneman and Tversky popularized the idea of cognitive biases in the 1970s and 1980s. Their work, including the creation of Prospect Theory, showed that when confronted with uncertainty humans do not always respond logically. They found several heuristics and prejudices that help to explain why individuals sometimes stray from reasonable judgment (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981; Kahneman & Tversky, 1982). Tversky and Kahneman (1974) stated anchoring that individual tended to focus on early information also known as anchors, then adjust the poorly from that point on. In the context of investment, anchoring may bias valuation and price decisions. Investors could focus their selections more on initial stock prices or other arbitrary standards than on thorough investigation. This bias might lead to erroneous asset assessment and wise investment decisions gone wrong. Shefrin and Statman (1985) explained the inclination effect, which is marked by the need to achieve gains while avoiding the realization of losses. This behavior directly contrasts with sensible investing strategies, which call for decisions based more on prospects than on the performance of present assets. The inclination effect might cause investors to sell winning stocks too early and maintain loser equities, therefore affecting the overall profits. The tendency of investors to follow a bigger group is well-known. This causes market bubbles and collective market movements. Banerjee (1992) offered a herding behavior model that shows individuals follow the pack because of social conformity and fear of losing out. It is possible for herding to result in market inefficiencies since collective movements that are driven by non-fundamental considerations may either inflate or deflate asset values, which can then lead to bubbles and eventual collapses.

2.2 Empirical Review

The judgments that are made about investments are significantly influenced by behavioral biases, which results in departures from the rational models that are used in classical finance. Overconfidence, anchoring, the disposition effect and herding behavior are all important brain biases.

Overconfidence on Investment Decisions

Investors typically overestimate their knowledge and precision. Investors overtrade because they assume they can predict market changes better than they can. Overconfident investors trade more, raising transaction costs and reducing net returns, according to Barber and Odean (2001). Overconfident investors trade more, according to Glaser and Weber (2007). Bhandari and Deaves (2006) report that younger, male, and higher educated investors are more overconfident. Overconfident online investors trade more and suffer, claims Barber and Odean (2002). Rawat (2023) claimed that overconfident traders and investors from Nepal deal inefficiently. These results lead one to formulate the following theory.

H1: Overconfidence impacts on investment decision among Nepalese investors.

Anchoring on Investment Decisions

Anchoring entails forming decisions based on insignificant or arbitrary reference points. Tversky and Kahneman (1974) explained anchoring how starting values impact subsequent choices. Kaustia et al. (2008) found that anchoring influences financial experts' stock return projections. Campbell and Sharpe (2009) found consensus prediction anchoring bias mispriced assets. Anchor modifications generally misjudge prices (Epley & Gilovich, 2006). Chand (2024) found anchoring bias in Nepalese stock market investors' first price assessments. Given these facts, the following hypothesis is proposed.

H₂: Anchoring bias impacts on investment decisions among Nepalese investors.

Disposition Effect on Investment Decisions

Investors selling valued assets while holding onto declining ones cause the disposition effect. Shefrin and Statman (1985) identified this inclination to earn and avoid losses. Investor temperament promotes bad trading, according to Odean (1998). Frazzini (2006) says this causes news underreaction, impacting stock prices and market efficiency. The disposition effect in securities trading was confirmed by experiments (Weber & Camerer, 1998). Poudel et al. (2024) observed that Nepalese investors hold failing stocks and sell winning ones early. Given these findings, the following hypothesis is proposed.

H₃: The disposition effect bias impacts on investment decisions among Nepalese investors.

Herding Behavior on Investment Decisions

Investor herding generates market bubbles. Banerjee's (1992) herding model explained why people follow the mob in terms of financial situation. Bikhchandani et al. (1992) proposed informational cascades may affect financial markets in their herding behavior theory. Stock returns were determined by Christie and Huang (1995) to be generally around the market average. Hwang and Salmon (2004) claim that investors herd more in uncertain markets. Gurung et al. (2024) explain that herd of Nepalese investors impact their investments. This evidence leads one to suggest the following hypothesis.

H4: Herding bias impacts on investment decisions among Nepalese investors.

2.3 Research Gap

Although a significant amount of research has been conducted on behavioral biases and their impact on investment decisions in a range of contextual contexts all over the globe, there is a glaring gap in the literature that refers especially to the Nepalese capital market. This disparity is especially apparent when considering Nepal. Research has demonstrated that biases such as overconfidence, anchoring, disposition effect, and herding can significantly affect investor behavior and market outcomes in established markets (Barber & Odean, 2001; Tversky & Kahneman, 1974; Shefrin & Statman, 1985; Banerjee, 1992). These biases have been shown to have a significant impact on investor behavior during established markets. Due to the fact that Nepal's socio-economic, cultural and market features are all unique from those of other countries, it is required to conduct an analysis that is more narrowly focused. The existing research on Nepalese investors (Rawat, 2023; Chand, 2024; Poudel et al., 2024; Gurung et al., 2024) offers preliminary insights into the existence of these biases; however, there is a lack of comprehensive empirical analysis that links these biases directly to investment performance and decision-making processes.

Moreover, fewer studies examine the interactions among different kinds of biases and their cumulative influence on the general investment environment in Nepal. This is a rather significant field of research. This study aims to fill the void that has been generated employing a thorough empirical assessment of the behavioral biases most prevalent among Nepalese investors, evaluation of the impact these biases have on investment choices and performance, and recommendation of techniques for minimizing these biases in order to improve financial results. Filling this need, the research adds significantly to the expanding discipline of behavioral finance. Moreover, it offers necessary insights specifically fit for the capital market of Nepal.

3. METHODS

This paper has investigated the effect of behavioral biases on investment choices among Nepalese investors using an explanatory research design with quantitative approach. Cochran's approach (Cochran, 1977) was used to ascertain a sample size such that the population of investors in Nepal's capital market would be statistically represented. Data was gathered using convenient sampling mehtod-that is, from a large pool of easily available investors by using a standardized online questionnaire. After excluding incomplete or incorrect replies, this methodology helped 417 participants—out of more than 600 contacted—to respond fit for the study (Baruch & Holtom, 2008). The questionnaire comprised four items for each independent variable—overconfidence, anchoring, disposition effect, herding and eight items for dependent variable investment decision. Using Amos software, structural equation modeling (SEM) was used in data analysis, chosen for its ability to assess the fit of the theoretical model and investigate challenging relationships between observable and latent variables. Employing convergent and discriminant validity, where average variance extracted (AVE) values above the criterion of 0.50, thus verifying that the constructs explained a noteworthy amount of the variation in their items (Hair et al., 2010). Strong internal consistency (Nunnally & Bernstein, 1994) was indicated by Cronbach's Alpha and Composite Reliability (CR) values above the allowed level of 0.70.

Comparative Fit Index (CFI) should be greater than 0.90, Root Mean Square Error of Approximation (RMSEA) should be less than 0.08, Standardized Root Mean Square Residual (SRMS) should be less than 0.08 (Hu & Bentler, 1999). Model fit was assessed using several indices with their respective threshold values. The chi-square/degree of freedom ratio (CMIN/DF) should be less than 3.

4. RESULTS AND DISCUSSION

4.1 Result Analysis

Overconfidence, anchoring behavior, disposition effect, herding behavior, and investment decision were carefully tested for validity and reliability to ensure accurate assessment. Convergent and discriminant validity showed that the constructs reflect theoretical notions. Cronbach's Alpha and composite reliability showed remarkable internal consistency across all constructions.

This study's construct measuring scales were tested for reliability using Cronbach's Alpha and composite reliability. Overconfidence, anchoring behavior, disposition effect, herding behavior, and investment decision had Cronbach's Alpha values of .882 to .944, above the 0.70 criterion (Nunnally & Bernstein, 1994). This suggests that each scale's components are closely connected and assess the same idea due to great internal consistency. All composite dependability (CR) values are over 0.87, suggesting strong internal consistency and dependency (Bagozzi & Yi, 1988). These dependability measures show that the measurement model is stable and captures the expected constructs, allowing empirical investigation.

Reliability

Figure 1

Covariance Analysis



Table 1

Measurement Model

Factors	Items	Estimate	Cronbach's Alpha	AVE	CR
ID	ID5.8	0.82	.944	0.68	0.94
	ID5.7	0.82			
	ID5.6	0.86			
	ID5.5	0.79			
	ID5.4	0.82			
	ID5.3	0.81			
	ID5.2	0.81			
	ID5.1	0.86			
OC	OC1.4	0.81	.916	0.74	0.92
	OC1.3	0.86			
	OC1.2	0.87			
	OC1.1	0.90			
ANC	ANC2.4	0.83	.892	0.67	0.89
	ANC2.3	0.85			
	ANC2.2	0.83			
	ANC2.1	0.79			
DIS	DIS3.4	0.98	.917	0.69	0.90
	DIS3.3	0.63			
	DIS3.2	0.99			
	DIS3.1	0.67			
HER	HER4.4	0.70	.882	0.63	0.87
	HER4.3	0.85			
	HER4.2	0.74			
	HER4.1	0.88			

4

Validity

Table 2

	ID	OC	ANC	DIS	HER
ID	0.824				
OC	0.322	0.862			
ANC	0.310	0.499	0.821		
DIS	0.340	0.476	0.349	0.833	
HER	0.399	0.543	0.467	0.616	0.795

Discriminant Validity

All construct Average Variance Extracted (AVE) values above 0.50, proving convergent validity (Hair et al., 2010). This suggests that the constructs explain the variation in their items, indicating that highly connected. Additionally, all item factor loadings were above 0.60, confirming convergent validity (Fornell & Larcker, 1981). Discriminant validity was established by comparing the square root of the average variance extracted (AVE) for each concept with the inter-construct correlations. The square root of the average variance extracted (AVE) for each construct surpassed its correlations with other constructs, indicating a distinct evaluation of concepts. This extensive study provides strong support for the measuring technique and guarantees that the constructs effectively capture the theoretical characteristics.

Figure 2

Path Analysis



Pain Coefficients								
Hypothesis	Factors	Path	Factors	Unstandardized	S.E.	t	Р	Result
				β		value	Value	
H ₁	OC	\rightarrow	ID	0.096	0.049	1.971	.049	Supported
H_2	ANC	\rightarrow	ID	0.137	0.051	2.66	.008	Supported
H_3	DIS	\rightarrow	ID	0.128	0.042	3.078	.002	Supported
H ₄	HER	\rightarrow	ID	0.253	0.06	4.182	***	Supported

Table 3Path Coefficients

The path analysis revealed significant positive relationships between the variables and investment decision. overconfidence ($\beta = 0.096$, p <.05), anchoring behavior ($\beta = 0.137$, p <.01), disposition effect ($\beta = 0.128$, p <.01), and herding behavior ($\beta = 0.253$, p < .001) all significantly influenced investment decision. These results support the hypothesis that these factors are significant predictors of investment decision-making.

Model Fit

The model fit indices presented in Table 4 demonstrate a robust match between the model and the data. The chi-square/degree of freedom ratio (CMIN/DF) is 1.875, significantly below the acceptable 3, indicating a strong fit. The comparative Fit Index (CFI) is 0.976, well above the 0.9 standard. The RMSEA is 0.045, comfortably within the permissible range of less than 0.08. The Standardized Root Mean Square Residual (SRMR) is 0.0602, below the acceptable 0.08, further reinforcing the strong model fit (Hu & Bentler, 1999).

Table 4

Measurement

	Result	Threshold
CMIN/DF	1.875	<3
CFI	0.976	>.9
RMSEA	0.045	<.08
Standardized RMR	0.0602	<.08

4.2 Discussion

The research demonstrates that excessive self-assurance has a significantly favorable influence on investment choices in mutual funds, aligning with the conclusions of Fitri and Cahyaningdyah (2021) and Qasim et al. (2019). Investing choices are favorably influenced by anchoring behavior, as shown by the studies conducted by Bagchi et al. (2022), Robin and Angelina (2020) and Shikuku (2012). Cici (2012), Niehaus and Shrider (2014) have found that the disposition impact is also quite substantial and positive. Patro and Kanagaraj (2012), Qasim et al. (2019) and Zheng et al. (2017) reveal that investing choices are favorably influenced by following the habits of the majority. These results imply that certain psychological aspects influence investment choices in the Nepal.

5. CONCLUSION AND IMPLICATIONS

5.1 Conclusion

The study concludes that there is substantial influence of psychological factors on investment decisions. Herd mentality, inflated self-esteem, and the genetic predisposition are all examples of such factors. These findings corroborate with the findings of Bagchi et al. (2022) and Fitri and Cahyaningdyah (2021) who found that anchoring behavior and overconfidence significantly impact financial decision-making. They also confirm that the components have a major influence on finance decisions. Cici (2012) and Zheng et al. (2017) found that investors' herd mentality and dispositions influence their investment decisions. This study helps to fill a vacuum in the behavioral finance literature and adds to our knowledge of how these beliefs impact investor behavior. As a result, financial professionals may benefit from these insights.

5.2 Implications

This conclusion has major implications theoretically and practically. The study's psychological biases—herding tendency and overconfidence—may impact investors' investing choices and provide suboptimal results. Financial advisers should use investors' psychology to help customers overcome these biases. This paper conceptually adds to the area of expertise in behavioral finance by providing empirical data concerning the influence of psychological characteristics on investment decisions. Potential strategies for overcoming these biases and their influences on various capital markets and investor demographics may be the subject of future study.

Future research should prioritize the development of decision-support tools or customized training programs aimed at mitigating the impacts of herding, overconfidence and anchoring on ID. Examining their effects on different financial markets and investor demographics is important to gaining a deeper understanding of these biases and developing specific ways to improve investing decision-making. Longitudinal research may provide a clearer understanding of how people's long-term financial behavior is influenced by their beliefs, particularly regarding investment results.

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