






# “Heuristic bias and investment decision: Exploring the mediating role of investors’ risk perceptions”

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# HEURISTIC BIAS AND INVESTMENT DECISION: EXPLORING THE MEDIATING ROLE OF INVESTORS' RISK PERCEPTIONS

**Abstract**

This study examines the connections between heuristic prejudices, risk perceptions, and investment decisions among stock market investors in Nepal. The study explores how prejudices such as overconfidence, representativeness, availability, and anchoring and adjustment shape investment choices, with a specific emphasis on the mediating influence of risk perception. Through a quantitative approach, data were collected from 404 respondents via a self-administered survey, and Structural Equation Modeling (SEM) was used for analysis. The findings reveal that risk perception significantly mediates the effect of these biases on investment decisions, highlighting the complex interplay between behavioral factors and investor behavior. By highlighting the necessity of taking risk perceptions into consideration when addressing behavioral biases in investment strategies, these results have practical consequences for investors, financial consultants, and legislators. This research pays attention to the understanding of behavioral finance, particularly within the context of Nepal's capital market, and lays the groundwork for further studies on factors affecting investment decisions in real-world settings.

**Keywords**

heuristics bias, risk perception, investment decision-making, behavioral finance, individual investors

**JEL Classification**

G11, G41

**INTRODUCTION**

Investment decision-making is increasingly being studied through the lens of behavioral finance, which challenges the classical view that investors always act rationally. Conventional financial theories, including the Efficient Market Hypothesis (EMH) developed by Fama in 1970, contend that investors behave as logical agents that make choices based on all available information to optimize profits. Recent research, however, shows that psychological elements like emotions, biases, and heuristics have a big impact on investor behavior and frequently result in irrational choices (Bakar & Yi, 2016; Sutcliffe, 1994; Jain et al., 2020). Behavioral finance literature highlights the impact of cognitive biases like the framing effect, herd behavior, and heuristic-driven shortcuts, that result in suboptimal investment decisions, where investors tend to buy stocks at inflated prices and sell them during downturns (Baker et al., 2019; Economou et al., 2010). These irrational behaviors not only challenge the notion of efficient markets but also underscore the need for a deeper understanding of psychological influences in shaping investment decisions (Statman, 2014).

Risk perception, a crucial mediator in the decision-making process for investments, is a crucial component of these behavioral factors. While an investor's attitude toward risk remains relatively stable, their

perception of risk is dynamic and fluctuates based on external circumstances (Ahmed et al., 2022; Hossain & Siddiqua, 2022). Heightened risk perceptions often lead to reduced investment frequency and more conservative decision-making (Noura et al., 2018; Almansour et al., 2023). Scholars in behavioral finance also assert that heuristic biases significantly affect financial decisions and market forecasts (DeBondt & Thaler, 1995; Waweru et al., 2008). As developing countries like Nepal gradually adopt behavioral finance principles, there remains a notable gap in understanding how heuristic biases, along with risk perceptions, shape investment decisions in these contexts. With a focus on the mediating role of investors' risk perceptions, this study aims to close this gap by investigating the connection between heuristic biases and investing choices.

## 1. LITERATURE REVIEW

Heuristics, commonly described as cognitive shortcuts, serve as efficient mechanisms for simplifying complex decision-making processes. These strategies, initially conceptualized by Kahneman and Tversky (1974), focus on representativeness, availability, and anchoring as key heuristics that influence judgments and choices. Later research expanded this foundation to include overconfidence and other biases, revealing how heuristics facilitate decision-making while also introducing systematic errors (Waweru et al., 2008; Kengatharan & Kengatharan, 2014). This dual nature of heuristics – offering efficiency while fostering potential biases – is crucial for understanding their impact on financial decisions (Ricciardi, 2008; Thaler & Ganser, 2015).

Heuristics allow individuals to bypass intricate calculations by restructuring complex possibilities and values into more manageable judgments, as emphasized by Ritter (2003) and Kahneman and Tversky (1974). While these shortcuts are essential for navigating uncertainty, their over-reliance can lead to systematic cognitive errors, particularly in the context of investment decisions (Shefrin, 2000). Scholars such as Waweru et al. (2008) and Kumar & Goyal (2015) have expanded the heuristic framework to include concepts like the gambler's fallacy and overconfidence, while Kengatharan and Kengatharan (2014) and Jain et al. (2020) highlighted five prominent heuristics – representativeness, availability, anchoring, and overconfidence – that are crucial in determining how people behave financially. Despite their utility in expediting judgments, heuristics often give rise to predictable and suboptimal outcomes, underscoring their dual role as facilitators and sources of error (Ricciardi, 2008; Abdin et al., 2022). Consequently, while heuristics

streamline decision-making, their improper application can result in significant cognitive distortions, influencing the quality and rationality of financial decisions.

When making financial decisions, overconfidence bias, which is defined as an exaggerated conviction in one's knowledge and prediction abilities, is crucial (Wulandari & Iramani, 2014). This bias often leads investors to underestimate risks and overestimate the accuracy of their judgments, particularly following successful outcomes (Shah et al., 2018; Pompian, 2011). Particularly in optimistic markets when positive feedback feeds this tendency, recent research indicates that overconfidence can lead to excessive trading and high-risk investments (Ahmed, 2024; Gavrilakis & Floros, 2021). While overconfidence may enhance decisiveness in familiar contexts (Jain et al., 2023), it frequently distorts risk assessment, particularly in volatile environments (Bakar & Yi, 2016; Javed et al., 2017). Despite its dual effects, overconfidence bias remains a fundamental determinant of investor behavior.

Representativeness bias arises when individuals assess probabilities based on similarities to broader categories or past events, often neglecting comprehensive data. This bias might cause investors to ignore important basic assessments by extrapolating past trends to future performance (Kahneman & Tversky, 1974). This bias can lead to overvaluation and misinterpreted decisions, as demonstrated by Javed et al. (2017). Novice investors are particularly vulnerable, as they rely on observable patterns rather than deeper market insights (Irshad et al., 2016). Empirical evidence underscores representativeness as a significant factor distorting rational investment choices (Chen et al., 2007; Waweru et al., 2008).

Availability bias emphasizes reliance on readily accessible or recent information over broader datasets. This bias is particularly impactful in financial markets, where investors often favor familiar companies or high-profile stocks, leading to under-diversification and herding behaviors (Ngoc, 2014; Almansour et al., 2023). In emerging markets, availability bias is further exacerbated by limited financial literacy and information asymmetry, resulting in inefficiencies (Adil et al., 2022). The pervasive influence of this bias highlights its role in shaping investor behavior and emphasizes the need for comprehensive decision-making approaches (Ahmed et al., 2022; Javed et al., 2017).

Anchoring bias, defined as the undue reliance on initial reference points, such as historical prices, significantly influences investment decisions. Investors anchored to these reference points often misjudge valuations, particularly in volatile or rapidly changing markets (Keswani et al., 2019; George & Hwang, 2004). Research indicates that even experienced investors are susceptible to this bias, especially when dealing with unfamiliar assets or uncertain market conditions (Khan et al., 2017; Valcanover & da Silva, 2020). This heuristic often results in suboptimal asset allocation and impedes adaptive decision-making (Kengatharan & Kengatharan, 2014).

Risk perception, defined as an investor's subjective evaluation of potential losses, mediates the relationship between heuristic biases and investment decisions. Heuristic biases and investing decisions are mediated by risk perception, which is an investor's subjective assessment of possible losses. Risk perception is greatly influenced by cognitive biases such as overconfidence, representativeness, availability, and anchoring, which in turn affect investing behavior (Ricciardi, 2008; Forlani & Mullins, 2000). For instance, overconfident investors often underestimate risks, promoting riskier investments, while availability bias amplifies perceived risks, leading to overly cautious strategies (Ahmed et al., 2022; Jain et al., 2023). Recent studies emphasize that risk perception bridges cognitive shortcuts and behavioral outcomes, offering nuanced insights into how biases shape decision-making processes (Ricciardi, 2008; Suresh, 2024).

Investment decision-making represents the culmination of various psychological and cognitive factors, including heuristics and risk perception. Behavioral finance literature consistently shows that biases distort rational decision-making, resulting in either overly conservative or excessively risky behaviors (Staw et al., 1981; Grima et al., 2023; Suresh, 2024). For example, anchoring bias often ties investment choices to outdated benchmarks, while availability bias fosters herding behaviors that disrupt market efficiencies (Shah et al., 2021; Almansour et al., 2023). Addressing these biases is crucial for promoting rational and effective investment strategies. This study examines the interplay between heuristic biases, risk perception, and investment decisions, with a focus on risk perception's mediating role. By illuminating the cognitive pathways through which biases influence behavior, this research contributes to a deeper understanding of investor psychology. The hypotheses are as follows:

- H1: There exists a notable influence of Overconfidence Bias on Investment Decision.*
- H2: There exists a considerable influence of Representativeness Bias on Investment Decision.*
- H3: There exists a considerable influence of Availability Bias on Investment Decision.*
- H4: There exists a significant influence of Anchoring and Adjustment Bias on Investment Decision.*
- H5: There exists a marked influence of Overconfidence Bias on Risk Perceptions.*
- H6: There exists a marked influence of Representativeness Bias on Risk Perceptions.*
- H7: There exists a marked influence of Anchoring and Adjustment Prejudice on Risk Perceptions.*
- H8: There exists a marked influence of Availability Bias on Risk Perceptions.*
- H9: There is a marked influence of Risk Perception on Investment Decisions.*

- H10: The association between Overconfidence Bias and investor decision-making is significantly mediated by risk perception.*
- H11: The association between Representativeness Bias and investor decision-making is significantly mediated by risk perception.*
- H12: The association between Availability Prejudice and investor decision-making is significantly mediated by risk perception*
- H13: The association between Anchoring and Adjustment Prejudice and investor decision-making is significantly mediated by risk perception.*

## 2. METHODS

The study employed a deductive approach, formulating hypotheses based on existing theories and testing them with real-world evidence. Its primary objective was to investigate how heuristic prejudice influences investors' choices with a mediating role of risk perceptions. The deductive method, which involves reasoning from general principles to specific cases, was chosen as the most suitable. The research falls under the explanatory type, aiming to demonstrate cause-and-effect relationships among the factors. To comprehend connections and interactions between variables, a quantitative cross-sectional research design has been adopted. Targeting the population entails choosing a certain subset of people to get data from (Hair et al., 2015). The research specifically concentrated on individual active investors who are engaged with the Nepal Stock Exchange (NEPSE) as the primary target population. The purposive sampling technique, suitable for individuals, was employed. The study included a sample of 404 investors who are actively trading on the Nepal Stock Exchange. The questionnaires were translated into the local Nepali language as well, considering the low literacy rate and limited financial term awareness among investors. The primary objective of the study was to make an inquiry into the probable mediating role of risk perception in the relations between heuristic prejudice and the process of making investment decisions. Investor information was obtained from capital market brokers, who provided the required respondent data for the study.

A well-structured questionnaire with a five-point Likert scale was created to gather primary data. The questions focused on heuristic bias and investment decision-making, covering aspects like Overconfidence Prejudice, Representative Prejudice, Anchoring and Adjustment Prejudice, Availability Prejudice, Risk Perceptions, and Investment Decision Making. Respondents expressed their opinions about each item on a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The questionnaire included items adapted from Adil et al. (2022), Ahmed et al. (2022), Almansour et al. (2023), Gavrilakis and Floros (2022), Jain et al. (2023), and Salman et al. (2020). These items included Representative Prejudice, Availability Prejudice, Anchoring and Adjustment Prejudice, Overconfidence Prejudice, Risk Perceptions, and Investment Decision Making.

Convergent and discriminant validity tests were performed to confirm the validity of the questionnaire. Convergent validity assessed the association between the constructs, while discriminant validity ensures the measurement validity of the questionnaire by examining correlations between the distinct constructs. Following validation, Structural Equation Modeling (SEM) was employed to analyze the data. SEM helps to explore the mediating effects and analyze complex interactions between numerous variables. In this study, SEM was applied to understand the perspectives of Nepalese active investors investing on the Nepal Stock Exchange. The facilitating role of investors' risk perceptions was examined to understand its impact on relationships between variables. The research followed ethical protocols, with participants providing informed consent, ensuring their voluntary participation. Confidentiality and anonymity of the respondents were ensured by providing unique identification codes to each questionnaire respondent.

## 3. RESULTS

The socio-demographic profile of the sample provides key insights into the characteristics of the participants. In terms of age, the majority of respondents (47.00%) are under 30 years old, suggesting a relatively youthful demographic, while 33.40% fall within the 31-40 years' age range, indicating a significant portion of participants in early to mid-career stages. A smaller proportion (13.90%) is between

41-50 years, and even fewer (4.07%) are between 51-60 years, with only 1.00% of respondents being over 60 years old. Gender-wise, there is a noticeable disparity, with 62.62% of participants identifying as male, compared to 37.38% female. In terms of education, the sample is highly educated, with 52.50% of respondents holding graduate or higher degrees, and 37.40% having completed undergraduate education. A small portion (3.20%) has informal education, and 6.90% have only completed high school. Regarding investment experience, more than half of the participants (52.20%) have 1 to 5 years of investment experience, followed by 21.50% with 6 to 10 years, 9.40% with 11 to 15 years, and a small group (2.70%) with more than 15 years of investment experience. A smaller portion (14.10%) has less than one year of investment experience. This socio-demographic breakdown reveals a sample that is predominantly young, male, and highly educated, with a significant proportion of respondents possessing moderate investment experience. These characteristics are important for understanding the context of financial behaviors and decisions within this group.

**Table 1.** Factor loadings, AVE and CR

| Items | Factor Loading | Communalities | AVE   | CR    |
|-------|----------------|---------------|-------|-------|
| ID1   | .899           | 0.898         | 0.816 | 0.946 |
| ID2   | .874           | 0.851         |       |       |
| ID3   | .852           | 0.786         |       |       |
| ID4   | .906           | 0.92          |       |       |
| AB1   | .925           | 0.887         | 0.854 | 0.967 |
| AB2   | .948           | 0.92          |       |       |
| AB3   | .862           | 0.779         |       |       |
| AB4   | .929           | 0.885         |       |       |
| AB5   | .961           | 0.944         |       |       |
| OB1   | .876           | 0.832         | 0.816 | 0.946 |
| OB2   | .862           | 0.803         |       |       |
| OB3   | .906           | 0.877         |       |       |
| OB6   | .938           | 0.928         |       |       |
| RP1   | .528           | 0.534         | 0.541 | 0.824 |
| RP2   | .791           | 0.705         |       |       |
| RP3   | .838           | 0.745         |       |       |
| RP5   | .781           | 0.701         |       |       |

**Table 2.** Discriminant validity

|    | CR    | AVE   | MSV   | MaxR(H) | AA    | AB    | OB    | ID    | RR    | RP    |
|----|-------|-------|-------|---------|-------|-------|-------|-------|-------|-------|
| AA | 0.829 | 0.553 | 0.297 | 0.864   | 0.744 |       |       |       |       |       |
| AB | 0.967 | 0.854 | 0.086 | 0.977   | 0.202 | 0.924 |       |       |       |       |
| OB | 0.947 | 0.816 | 0.190 | 0.966   | 0.330 | 0.117 | 0.904 |       |       |       |
| ID | 0.946 | 0.816 | 0.156 | 0.970   | 0.359 | 0.293 | 0.277 | 0.903 |       |       |
| RR | 0.922 | 0.749 | 0.078 | 0.943   | 0.151 | 0.119 | 0.150 | 0.280 | 0.866 |       |
| RP | 0.824 | 0.541 | 0.297 | 0.829   | 0.545 | 0.220 | 0.436 | 0.395 | 0.035 | 0.735 |

Source: AMOS, 23.

| Items | Factor Loading | Communalities | AVE   | CR    |
|-------|----------------|---------------|-------|-------|
| AA1   | .865           | 0.797         | 0.553 | 0.829 |
| AA2   | .631           | 0.581         |       |       |
| AA3   | .857           | 0.768         |       |       |
| AA5   | .645           | 0.552         | 0.749 | 0.922 |
| RR1   | .890           | 0.855         |       |       |
| RR2   | .861           | 0.77          |       |       |
| RR3   | .867           | 0.759         |       |       |
| RR4   | .932           | 0.888         |       |       |

Note: Extraction Method: Principal Component Analysis.

Table 1 presents information on convergent validity, Average Variance Extracted (AVE), and Composite Reliability (CR). The recorded AVE values exceed 0.5, and the CR values are above 0.7, thus meeting the criteria for convergent validity as established by Hair et al. (2010). Additionally, the factor loadings for all constructs exceed 0.5. The reliability of the measures, as indicated by Cronbach's alpha, exceeds 0.7, demonstrating a high level of internal consistency (Nunnally, 1978).

To evaluate discriminant validity, it is essential that the square root of the Average Variance Extracted (AVE) on the diagonal is greater than the correlation values on the off-diagonal, as outlined by Barclay et al. (1995) and Fornell and Larcker (1981). Table 2 demonstrates that the square root of the AVE exceeds the inter-correlations among all independent variables being examined. Specifically, the diagonal elements, which represent the square root values of the AVE, are higher than the correlation coefficients between all constructs.

Table 3 deals with the direct effect of Heuristic Prejudice, Risk perceptions and Investment decisions. The direct relationships between variables and the results of hypothesis testing are presented in the table. The direct associations between the independent variables and the dependent variable are acknowledged: representative prejudice, anchoring and adjustment prejudice, availability prejudice, and risk perceptions are accepted.

**Table 3.** Hypothesis confirmation direct effect

| Hypothesis | Path |      | Estimate | S.E.  | C.R.   | P     | Results  |
|------------|------|------|----------|-------|--------|-------|----------|
| H1         | ID   | ← OB | 0.073    | 0.055 | 1.44   | 0.15  | Rejected |
| H2         | ID   | ← RR | 0.219    | 0.053 | 4.733  | ***   | Accepted |
| H3         | ID   | ← AB | 0.178    | 0.047 | 3.896  | ***   | Accepted |
| H4         | ID   | ← AA | 0.133    | 0.049 | 2.21   | **    | Accepted |
| H5         | ID   | ← RP | 0.244    | 0.078 | 3.656  | ***   | Accepted |
| H6         | RP   | ← OB | 0.291    | 0.049 | 5.505  | ***   | Accepted |
| H7         | RP   | ← RR | -0.088   | 0.047 | -1.835 | 0.066 | Rejected |
| H8         | RP   | ← AB | 0.108    | 0.042 | 2.262  | **    | Accepted |
| H9         | RP   | ← AA | 0.441    | 0.042 | 7.258  | ***   | Accepted |

Note: \*\*\* significant at the 0.01 level, \*\* significant at the 0.05 level.

However, no direct association was identified between overconfidence bias and investment decision in the context of the study.

Confirmatory factor analysis was undertaken to assess the structural validity of the measurement model, and the results identified the Six-factor model as the most appropriate for the data. This determination is supported by the model fit indices presented in Table 4. The fit indices for the six-factor model, as evidenced by a Chi-Square ( $X^2/df$ ) value of 2.49, suggest that the sample fits well after evaluating data discrepancies. This indicates an overall excellent fit for the model in this study. The Comparative Fit Index (CFI) is reported at 0.92, the Tucker-Lewis Index (TLI) at 0.96, and the Goodness-of-Fit Index (GFI) at 0.94 which demonstrates the extent of variance considered for the projected population covariance. The Incremental Fit Index (IFI) at 0.94 demonstrates that the research sample size is aptly attuned to the degree of freedom. The Root Mean Square Error of Approximation (RMSEA) is reported at 0.05, which is a parsimony-adjusted index. A value close to 0 for RMSEA suggests

a good fit, further supporting the overall appropriateness of the model in this study. Notably, except for the six-factor model, all other models in Table 4 show values that go outside of allowable ranges. This analysis highlights the research variables' strong validity and reliability, which satisfies acceptable standards.

Table 5 deals with the indirect impact of heuristic prejudice affecting decision-making by investors in the Nepalese stock market. The result shows an indirect influence of overconfidence prejudice on investor decision-making ( $\beta = 0.071$ , LL = 0.031, UL = 0.115). Likewise, representative bias has no indirect effect on investor decision-making ( $\beta = -0.021$ , LL = -0.046, UL = -0.001). The outcome demonstrates that anchoring and adjustment prejudice have marked indirect effect on investor decision-making ( $\beta = 0.108$ , LL = 0.056, UL = 0.162). Finally, the result finds the indirect effect of AB on investor decision-making ( $\beta = 0.026$ , LL = 0.006, UL = 0.051). Thus, it can be concluded that there exists a mediating impact of risk perception on overconfidence bias and investor decision-making.

**Table 4.** Confirmatory factor analysis summary

| Model                                     | $\chi^2 / df$ | CFI          | TLI          | GFI          | IFI          | RMSEA        |
|---|---------------|--------------|--------------|--------------|--------------|--------------|
| Six-factor model (OB, RR, AB, AA, RP, ID) | 2.49          | 0.92         | 0.96         | 0.94         | 0.94         | 0.05         |
| Threshold (Fetscherin, 2019)              | $\leq 3.00$   | $\geq 0.900$ | $\geq 0.900$ | $\geq 0.900$ | $\geq 0.900$ | $\leq 0.060$ |

**Table 5.** Hypothesis confirmation indirect effect

Source: AMOS, 21.

| Hypothesis | Path         | Estimate | LL     | UL     | Results  |
|------------|--------------|----------|--------|--------|----------|
| H10        | OB → RP → ID | 0.071    | 0.031  | 0.115  | Accepted |
| H11        | RR → RP → ID | -0.021   | -0.046 | -0.001 | Accepted |
| H12        | AA → RP → ID | 0.108    | 0.056  | 0.162  | Accepted |
| H13        | AB → RP → ID | 0.026    | 0.006  | 0.051  | Accepted |

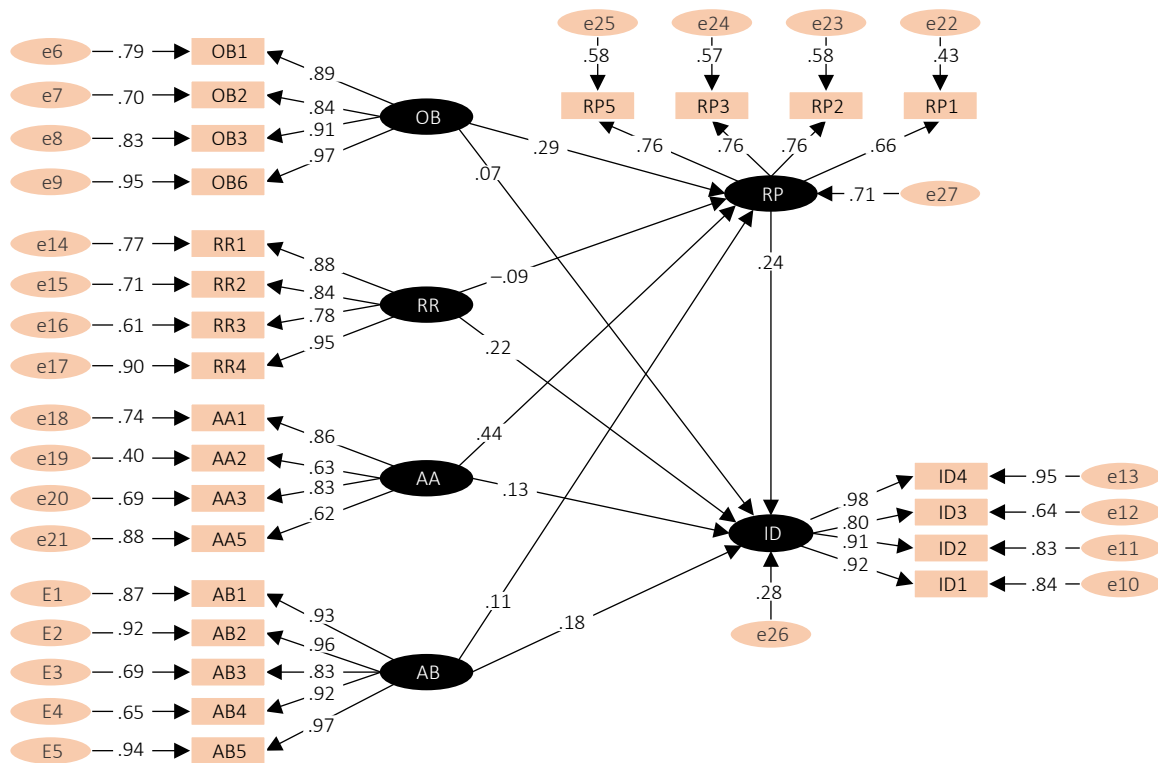


Figure 1. Structured model

ing. Likewise, the perception of risk plays a mediating role in representatives and investor decision-making. Likewise, another conclusion can be drawn that risk perception has partially mediated the associations among anchoring and adjustment prejudice and investor investment decision-making. Finally, risk perception has a vital mediating impact on AB and investor investment decision-making. Lastly, the structure model that explains the connections among latent variables is shown in Figure 1. The goals of the structural model are to recognize the covert constructs that either explicitly or implicitly impact the values of other hidden constructs in the model (Kline, 2015).

#### 4. DISCUSSION

The results of this study provide significant insights into how cognitive biases, particularly overconfidence, representativeness, availability, and anchoring and adjustment biases, shape investment decisions in the Nepalese capital market. Consistent with previous research, the study confirms that heuristics and biases have a

powerful influence on investor behavior, especially in uncertain and volatile financial environments (Shah et al., 2018). A key contribution of this study is the identification of the mediating role of risk perception in the relationship between cognitive biases and investment decisions. Specifically, the findings suggest that risk perception acts as a crucial mediator between the biases and the decision-making process, indicating that investors' subjective views on risk significantly influence how biases affect their investment choices.

The overconfidence bias was found to be a significant predictor of investment decisions, corroborating findings by Waweru et al. (2008), Park et al. (2010), and Kafayat (2014), who noted that overconfident investors tend to overestimate their abilities and underestimate the risks, leading to suboptimal outcomes. This study adds depth to the existing literature by revealing that risk perception plays an indirect role in the relationship between overconfidence and investment decision-making. Overconfident investors, influenced by their distorted perception of risk, tend to underestimate the likelihood of nega-

tive outcomes, resulting in riskier investments and poorer performance (Pompian, 2011). This supports the work of Yaowen et al. (2015) and Abdin et al. (2022), who also emphasized the mediating role of risk perception in overconfidence's impact on investment behavior. Risk perception shapes how overconfident investors interpret market information, guiding their decisions toward more aggressive investment strategies, often leading to underperformance (Ahmad, 2024).

Similarly, the representativeness bias was found to influence investors' risk perception and their decisions, reinforcing the findings of Kahneman and Tversky (1974), DeBondt and Thaler (1995), and Ritter (2003). Representativeness bias occurs when investors rely on recent or easily accessible information, such as current market trends or stock performance, to predict future outcomes. This bias can distort risk assessment by leading investors to perceive more significant risks or rewards based on patterns that may not accurately reflect the long-term outlook of investments (Javed et al., 2017; Verma & Verma, 2018). This study contributes to the literature by showing that risk perception mediates the impact of representativeness bias on investment decisions. By misjudging risk due to representativeness bias, investors often make decisions that reflect short-term events rather than a more comprehensive evaluation of the market, highlighting the need for investors to develop a more balanced approach to risk evaluation.

The availability bias was also found to play a significant role in investment decision-making, supporting the findings of Waweru et al. (2008) Vlahovic et al. (2021), and Ahmed et al. (2022), who showed that investors often rely on readily available information, such as news reports or personal experiences, when making investment choices. This bias skews the risk perception of investors, causing them to place disproportionate weight on information that is easily accessible or memorable, rather than evaluating the broader market conditions or seeking out more objective data (Ikram, 2016; Naqvi et al., 2017). The present study enhances these findings by confirming that risk awareness mediates the relationship between availability bias and in-

vestment choices, highlighting the importance of risk perception in shaping how investors react to available information. In contrast, Clark (2016) and Shah et al. (2018) reported a negative impact of availability bias, suggesting that the effect of this bias may depend on the investor's ability to filter and assess information critically.

Finally, the study found that anchoring and adjustment bias also significantly affects investment decisions, a conclusion that aligns with prior research by Waweru et al. (2008), Kengatharan and Navaneethakrishnan (2014), and Jain et al. (2023). Investors with anchoring bias tend to base their investment decisions on initial reference points, such as past stock prices or the most recent market performance, rather than adjusting their views based on new and relevant information. The study extends existing literature by demonstrating that anchoring bias influences risk perception and subsequently affects investment decisions. Anchoring bias distorts investors' understanding of risk, leading them to make decisions based on outdated or incomplete information, thereby increasing the likelihood of making poor investment choices. The mediator role of risk perception is evident, as investors who are anchored to past performance may not adequately adjust their risk assessments, which affects their investment strategies.

In conclusion, this study reaffirms the significant role of cognitive biases in investment decisions and emphasizes the mediating role of risk perception in this relationship. While cognitive biases like overconfidence, representativeness, availability, and anchoring shape investors' perceptions of risk, it is ultimately their subjective assessment of that risk that influences their investment decisions. This study contributes to the growing body of literature on behavioral finance by providing empirical evidence from the Nepalese market, highlighting the complex interplay between heuristics, risk perception, and investment decision-making. Investors, especially those in emerging markets like Nepal, must be cognizant of these biases and the way in which their perception of risk can distort their investment choices, leading to potentially sub-optimal financial outcomes.

## CONCLUSION

This study provides critical insights into the influence of behavioral biases on investment decisions, particularly within the Nepalese capital market. The findings demonstrate how cognitive biases—overconfidence, representativeness, availability, and anchoring—systematically affect investors' decision-making processes, often leading to suboptimal financial outcomes. Overconfidence bias, for instance, distorts risk assessments by leading investors to underestimate potential losses, fostering riskier investment behaviors. Similarly, representativeness bias prompts reliance on recent performance trends rather than a balanced risk evaluation, potentially reducing portfolio diversification and increasing exposure to volatility. Availability bias further influences decision-making by causing investors to overweight easily accessible information while neglecting broader market data, emphasizing the need for a more comprehensive approach to information processing. Additionally, anchoring bias reinforces reliance on past stock prices or market trends, skewing risk assessment and fostering unrealistic investment expectations.

A key contribution of this study is the identification of risk perception as a mediating factor in the relationship between these biases and investment choices. The findings suggest that subjective risk assessments play a pivotal role in shaping investment behavior, underscoring the necessity for investors to recognize and adjust for cognitive distortions in their decision-making. These insights hold significant implications for various stakeholders in Nepal's capital market. Investors must develop awareness of cognitive biases to improve decision-making and achieve more rational investment outcomes. Financial advisors and wealth managers can leverage behavioral finance principles to educate clients, guiding them toward more balanced investment strategies. Policymakers, in turn, should promote financial literacy initiatives, encourage unbiased information dissemination, and establish regulations to mitigate misleading financial narratives.

Given the profound impact of these biases on investment decisions, future efforts should focus on investor training programs that enhance awareness of behavioral finance principles. Additionally, financial advisors should integrate behavioral insights into their advisory frameworks, helping clients counteract biases through structured decision-making approaches. Policymakers can further contribute by fostering transparency and ensuring the availability of objective financial information to support informed investment practices.

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## REFERENCES

1. Abdin S. Z. U., Qureshi F., Iqbal, J., & Sultana S. (2022). Overconfidence bias and investment performance: A mediating effect of risk propensity, *Borsa Istanbul Review*, 22(4), 780-793. <https://doi.org/10.1016/j.bir.2022.03.001>
2. Adil, M., Singh, Y., & Ansari, M. S. (2022). How financial literacy moderate the association between behaviour biases and investment decision? *Asian Journal of Accounting Research*, 7(1), 17-30. <https://doi.org/10.1108/AJAR-09-2020-0086>
3. Ahmad, M. (2024). The role of cognitive heuristic-driven biases in investment management activities and market efficiency: A research synthesis. *International Journal of Emerging Markets*. <https://doi.org/10.1108/IJOEM-07-2020-0749>
4. Ahmed, Z., Rasool, S., Saleem, Q., Khan, M. A., & Kanwal, S. (2022). Mediating Role of Risk Perception Between Behavioral Biases and Investor's Investment Decisions. *SAGE Open*, 12(2). <https://doi.org/10.1177/21582440221097394>
5. Almansour, B. Y., Sabri E., & Ammar, Y. A. (2023). Behavioral finance factors and investment decisions: A mediating role of risk perception. *Cogent Economics & Finance*, 11(2). <https://doi.org/10.1080/23322039.2023.2239032>
6. Bakar, S., & Yi, A. N. C. (2016). The impact of psychological factors on investors' decision making in Malaysian stock market: A case of Klang Valley and Pahang. *Procedia Economics and Finance*, 35, 319-328. [https://doi.org/10.1016/S2212-5671\(16\)00040-X](https://doi.org/10.1016/S2212-5671(16)00040-X)
7. Baker, H. K., Kumar, S., Goyal, N., & Gaur, V. (2019). How financial literacy and demographic variables relate to behavioral biases. *Managerial Finance*, 45, 124-146. <https://doi.org/10.1108/mf-01-2018-0003>
8. Barber, B. M., & Odean, T. (2011). The behavior of individual investors. In G. Constantinides, M. Harris, & R. Stulz (Eds.), *Handbook of the economics of finance* (1533-1570). <http://dx.doi.org/10.1016/B978-0-44-459406-8.00022-6>
9. Barclay, D. W., Higgins, C. A., & Thompson, R. (1995). The partial least squares approach to causal modeling: Personal computer adoption and use as illustration. *Technology Studies*, 2(2), 285-309. Retrieved from <https://bit.ly/2L8rSla>
10. Bromiley, P., & Curley S. (1992). Individual Differences in Risk Taking. In *Risk-Taking Behavior. Wiley Series in Human Performance and Cognition* (pp. 87-132). Oxford: John Wiley & Sons.
11. Chen, G., Kim, K., Nofsinger, J., & Rui, O. (2007). Trading performance, disposition effect, overconfidence, representativeness bias and experience of emerging market investor. *Journal of Behavioral Decision Making*, 20(4), 425-451. <https://doi.org/10.1002/bdm.561>
12. Clark, S. (2014). The availability bias: How the news can hurt your investment decisions. *An Excerpt from Perspectives*, 3(1).
13. De Bondt, W. F., & Thaler, R. H. (1995). Financial decision-making in markets and firms: A behavioral perspective. *Handbooks in operations research and management science*, 9, 385-410. [https://doi.org/10.1016/S0927-0507\(05\)80057-X](https://doi.org/10.1016/S0927-0507(05)80057-X)
14. Economou, F., Kostakis A., & Philippas N. (2010, June 3-6). An examination of herd behaviour in four Mediterranean stock markets [Paper Presentation]. *9th Annual Conference, European Economics and Finance Society*. Athens, Greece. Retrieved from [https://www.researchgate.net/publication/228776307\\_AN\\_EXAMINATION\\_OF\\_HERD\\_BEHAVIOUR\\_IN\\_FOUR\\_MEDITERRANEAN\\_STOCK\\_MARKETS](https://www.researchgate.net/publication/228776307_AN_EXAMINATION_OF_HERD_BEHAVIOUR_IN_FOUR_MEDITERRANEAN_STOCK_MARKETS)
15. Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, 25(2), 383-417. Retrieved from <https://www.jstor.org/stable/2325486>
16. Forlani, D., & Mullins, J. (2000). Perceived Risks and Choices in Entrepreneurs' New Venture Decisions. *Journal of Business Venturing*, 15, 305-22. [https://doi.org/10.1016/S0883-9026\(98\)00017-2](https://doi.org/10.1016/S0883-9026(98)00017-2)
17. Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 39-50. <https://doi.org/10.1177/002224378101800313>
18. Gavrilakis, N., & Floros, C. (2022). The impact of heuristic and herding biases on portfolio construction and performance: the case of Greece. *Review of Behavioral Finance*, 14(3), 436-462. <https://doi.org/10.1108/RBF-11-2020-0295>
19. George, T. J., & Hwang, C.-Y. (2004). The 52-Week High and Momentum Investing. *The Journal of Finance*, 59, 2145-2176. <https://doi.org/10.1111/j.1540-6261.2004.00695.x>
20. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed.). New York: Pearson.
21. Hair, J. F., Celsi, M. W., Money, A. H., Samouel, P., & Page, M. J. (2015). *Essentials of business research methods* (2nd ed.). <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85136103165&doi=10.4324%2F9781315704562&partnerID=40&md5=2d0f34eb49c76fd027fbc0ba8ca8471c>
22. Hossain, T., & Siddiqua, P. (2022). Exploring the influence of behavioral aspects on stock investment decision-making: A study on Bangladeshi individual investors. *PSU Research Review*. <https://doi.org/10.1108/PRR-10-2021-0054>
23. Ikram, Z. (2016). An empirical investigation on behavioral determinantson, impact on investment decision making, moderating role of locus of control. *Journal of Poverty, Investment and Development*, 26, 44-50. Retrieved from <https://iiste.org/Journals/index.php/JPID/article/viewFile/31771/32643>

24. Irshad, S., Badshah, W., & Hakam, U. (2016). Effect of representative bias on investment decision making. *Management and Administrative Sciences Review*, 5(1), 26-30. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=4857731](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4857731)
25. Jain, J., Walia, N., & Gupta, S. (2020). Evaluation of behavioral biases affecting investment decision making of individual equity investors by fuzzy analytic hierarchy process. *Review of Behavioral Finance*, 12(3), 297-314. <https://doi.org/10.1108/RBF-03-2019-0044>
26. Jain, J., Walia, N., Singla, H., Singh, S., Sood, K., & Grima, S. (2023). Heuristic Biases as Mental Shortcuts to Investment Decision-Making: A Mediation Analysis of Risk Perception. *Risks*, 72. <https://doi.org/10.3390/risks11040072>
27. Javed, H., Bagh, T., & Razzaq, S. (2017). Herding effects, over confidence, availability bias and representativeness as behavioral determinants of perceived investment performance: an empirical evidence from Pakistan Stock Exchange (PSX). *Journal of Global Economics*, 5, 275. <http://dx.doi.org/10.4172/2375-389.1000275>
28. Kafayat, A. (2014). Interrelationship of biases: Effect investment decisions ultimately. *Theoretical and Applied Economics*, XXI, 85-110. Retrieved from [https://ideas.repec.org/a/agr/journal/vxx-iy2014i6\(595\)p85-110.html](https://ideas.repec.org/a/agr/journal/vxx-iy2014i6(595)p85-110.html)
29. Kahneman, D., & Tversky, A. (1974). Judgment under uncertainty. *Heuristics and Biases, Science*, 85(4157), 1124-1131. Retrieved from <https://www.jstor.org/stable/1738360>
30. Kengathara, L., & Kengathara, N. (2014). The influence of behavioral factors in making investment decisions and performance: Study on investors of Colombo stock exchange, Sri Lanka. *Asian Journal of Finance and Accounting*, 6(1), 1-23. <http://dx.doi.org/10.5296/ajfa.v6i1.4893>
31. Keswani, S., Dhingra, V., & Wadhwa, B. (2019). Impact of behavioral factors in making investment decisions and performance: Study on investors of National stock exchange. *International Journal of Economics and Finance*, 11, 80. <http://dx.doi.org/10.5539/ijef.v11n8p80>
32. Khan, H. H., Naz, I., Qureshi, F., & Ghafoor, A. (2017). Heuristics and stock buying decision: Evidence from Malaysian and Pakistani stock markets. *Borsa Istanbul Review*. <http://dx.doi.org/10.1016/j.bir.2016.12.002>
33. Kline, R. B. (2015). *Principles and practice of structural equation modeling*. Guilford Publications. Retrieved from <https://www.guilford.com/books/Principles-and-Practice-of-Structural-Equation-Modeling/Rex-Kline/9781462551910?srsltid=AfmBOor57VfrbVL3B0cwKRys0ulty-s5ahoc0W3o-3TijSQAOWyXft2Y>
34. Kumar, S., & Goyal, N. (2015). Behavioral biases in investment decision making – A systematic literature review. *Qualitative Research in Financial Markets*, 7(1), 88-108. <https://doi.org/10.1108/QRFM-07-2014-0022>
35. Naqvi, Z., & Farooq, O., Sultana, N., & Farooq, M. (2017). The impact of heuristics on investment decision and performance: Exploring multiple mediation mechanisms. *Research in International Business and Finance*, 42. <https://doi.org/10.1016/j.ribaf.2017.07.010>
36. Ngoc, L. T. B. (2014). Behavior pattern of individual investors in stock market. *International Journal of Business and Management*, 9(1), 1. <https://doi.org/10.5539/ijbm.v9n1p1>
37. Noura, M., Hassan, K., Metawa, M., & Faisal, S. (2018). Impact of behavioral factors on investors' financial decisions: case of the Egyptian stock market. *International Journal of Islamic and Middle Eastern Finance and Management*, <https://doi.org/10.1108/IMEFM-12-2017-0333>
38. Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
39. Park, J., Konana, P., Gu, B., Kumar, A., & Raghunathan, R. (2010). *Confirmation bias, overconfidence, and investment performance: Evidence from stock message boards*. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1639470](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1639470)
40. Pompian, M. M. (2011). *Behavioral finance and wealth management. How to build optimal portfolios that account for investor biases*. Wiley. Retrieved from <https://www.wiley.com/en-us/Behavioral+Finance+and+Wealth+Management%3A+How+to+Build+Optimal+Portfolios+That+Account+for+Investor+Biases-p-9781118046319>
41. Ricciardi, V. (2004). *A Risk Perception Primer: A Narrative Research Review of the Risk Perception Literature in Behavioral Accounting and Behavioral Finance*. SSRN. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=566802](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=566802)
42. Ricciardi, V. (2008). *The Psychology of Risk: The Behavioral Finance Perspective* (SSRN Scholarly Paper). Rochester.
43. Ritter, J. R. (2003). Behavioral finance. *Pacific-Basin Finance Journal*, 11(4), 429-437.
44. Salman, M., Khan, B., Khan, S. Z., & Khan, R. U. (2020). The impact of heuristic availability bias on investment decision making: Moderated mediation model. *Business Strategy & Development*, 4(3), 246-257. <https://doi.org/10.1002/bsd2.148>
45. Shah, S., Ahmad, M., & Mahmood, F. (2018). Heuristic biases in investment decision-making and perceived market efficiency: A survey at the Pakistan stock exchange. *Qualitative Research in Financial Markets*, 10(1), 85-110. <https://doi.org/10.1108/QRFM-04-2017-0033>
46. Shah, S. F., Raza, M. W., & Khurshid, M. R. (2012). Overconfidence and perceived market efficiency. *Interdisciplinary Journal of Contemporary Research in Business*, 3(10), 984-997.
47. Shefrin, H. (2000). *Beyond greed and fear: understanding behavioral finance and psychology of investing*. New York: Oxford University Press.

48. Statman, M. (2014). Behavioral finance: Finance with normal people. *Borsa Istanbul Review*, 14(2), 65-73. <https://doi.org/10.1016/j.bir.2014.03.001>
49. Staw, B. M., Lance E. S., & Jane E. D. (1981). Threat Rigidity Effects in Organizational Behavior: A Multilevel Analysis. *Administrative Science Quarterly*, 26, 501-24. <https://psycnet.apa.org/doi/10.2307/2392337>
50. Suresh G. (2024). Impact of Financial Literacy and Behavioral Biases on Investment Decision-making. *FIIB Business Review*, 13(1), 72-86. <https://doi.org/10.1177/231971452111035481>
51. Sutcliffe, Kathleen M. (1994). What Executives Notice: Accurate Perceptions in Top Management Teams. *Academy of Management Journal*, 37, 1360-1378. <https://psycnet.apa.org/doi/10.2307/256677>
52. Thaler, R. H., & Gansler, L. J. (2015). *Misbehaving: The making of behavioral economics*. New York, NY: WW Norton.
53. Valcanover, V. M., Sonza, I. B., & da Silva, W. V. (2020). Behavioral Finance Experiments: A Recent Systematic Literature Review. *SAGE Open*, 10(4). <https://doi.org/10.1177/2158244020969672>
54. Verma, R., & Verma, P. (2018). Behavioral biases and retirement assets allocation of corporate pension plans. *Review of Behavioral Finance*, 10(4), 353-369. <https://doi.org/10.1108/RBF-01-2017-0009>
55. Vlahovic, N., Brozovic, V., & Skavic, F. (2021). Investor classification model based on behavioural finance studies. *44th International Convention on Information, Communication and Electronic Technology, MIPRO 2021 – Proceedings* (pp. 1271-1276). <https://doi.org/10.23919/MIPRO52101.2021.9597054>
56. Waweru, N. M., Munyoki, E., & Uliana, E. (2008). The effects of behavioral factors in investment decision-making: A survey of institutional investors operating at the Nairobi Stock Exchange. *International Journal of Business and Emerging Markets*, 1(1), 24-41. <http://dx.doi.org/10.1504/IJBEM.2008.019243>
57. Waweru, N., Mwangi, G., & Parkinson, J. (2014). Behavioral factors influencing investment decisions in the Kenyan property market. *Afro-Asian Journal of Finance and Accounting*, 4, 26-49. <https://doi.org/10.1504/AA-JFA.2014.059500>
58. Wulandari, D. A., & Iramani, Rr. (2014). Studi experienced regret, risk tolerance, overconfidance dan risk perception pada pengambilan keputusan investasi. *Journal of Business & Banking*, 4(1), 55-66. <https://doi.org/10.14414/jbb.v4i1.293>
59. Yaowen, X.U.E., Suqing, S.U.N., Zhang, P., & Tian, M.E.N.G. (2015). Impact of cognitive bias on improvised decision-makers' risk behavior: an analysis based on the mediating effect of expected revenue and risk perception. *Management Science and Engineering*, 9(2), 31-42.