Heuristics Biases and Investment Decisions: The Mediating Role of Financial Literacy in the Nepalese Stock Market

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Abstract

Purpose – Nepalese stock market is continuously emerging, with an increased number of investors every day. However, the investment mechanism of these investors differs, with some using a proper financial knowledge, while some investing just by rule of thumb. This paper examines the influence of heuristics bias on investment decisions and explore financial literacy as a mediator in the relationship between different heuristics biases and investment decisions.

Design/ methodology/ approach – The sample for this study is taken as investors from the heart of Nepal, the capital Kathmandu Valley. This research uses a descriptive and causal study design and a convenience sampling technique to gather data from 228 respondents. A five-point Likert scale was used to collect the data. To assess the hypotheses, correlation, regression analysis, and Hayes' Process Macro were used. The collected data were analyzed using SPSS.

Findings and Conclusions – The study shows that overconfidence bias and anchoring bias has statistically significant relationships and are good predictors of investment behavior. Likewise, financial literacy partially mediates through different heuristics bias and investment decisions. This shows that heuristics shortcuts improve investment decisions when combined with financial literacy.

Implications – The study is valuable for emerging investors aiming to grow their investments with very little knowledge about the stock market and invest based on hunches or ideas from social circles. The study strongly emphasizes investors to have knowledge about financial terminologies, concepts, numbers and figures rather than blindly investing in stock markets and equities.

Originality/value – The findings of the study help with behavioral finance by examining anchoring biases, availability, representativeness, and overconfidence. The study illustrates how financial education might lessen illogical investing practices. Its conclusions encourage wise decision-making in Nepal's financial sector by providing insightful information for investors, legislators, and educators.

Keywords – Anchoring bias, Availability bias, Financial literacy, Overconfidence bias, Representativeness bias

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1. Introduction

Standard finance discusses market efficiency by incorporating all available information when making investment decisions. However, attitudes, emotions, and psychological biases all have an impact on investing decisions, which are often irrational, so they are not just based on conventional finance (Kapoor & Prosad, 2017; Bihari et al., 2022). Investors' investing decisions are heavily influenced by psychological aspects, which are encompassed within the broader field of behavioral finance (Prosad et al., 2015; Ghimire & Adhikari, 2023). According to previous research, investors exhibit a variety of behavioral biases in the market, and these biases have an impact on their investing choices (Adhikari et al, 2025).

The process of making investing decisions is intrinsically complicated and heavily impacted by cognitive elements, especially biases and heuristics. Heuristics are "rules of thumb" or mental shortcuts that people employ to make decisions easier when faced with ambiguity. Although these cognitive methods allow investors to make judgments quickly and without doing a lot of research, they frequently result in systematic biases or errors that undermine accuracy and rationality, which might lead to worse than ideal investment results (Tversky & Kahneman, 1974; Ricciardi & Simon, 2020). Several frequent heuristic biases that impact investors have been uncovered by research, including overconfidence, representativeness, availability, and anchoring (Kahneman & Tversky, 1974; Waweru et al., 2008; Sharma et al, 2024). Availability bias happens when people calculate the probability of an occurrence by considering how easily they can remember comparable examples. Cognitive biases, especially availability prejudice, have a big impact on how investors make decisions. Due to this bias, people tend to base their decisions on the most current or readily available information, which frequently results in skewed views of opportunity and danger. For example, investors may overestimate the risk of stock market crashes due to frequent exposure to media coverage, which might lead to less-than-ideal investing decisions (Dhakal & Lamsal, 2023; Michaelidou & Dibb, 2022).

The representativeness heuristic compares an occurrence to a prototypical example in order to determine its likelihood. This mental shortcut is frequently used by investors, who assume that a new business will prosper just because it looks like other successful businesses, particularly in the IT industry. By doing this, they could ignore important elements including operational hazards, financial fundamentals, and market circumstances (Tversky & Kahneman, 1974). Overestimating possible profits and making poor investing decisions are two consequences of this tendency. Poor predicting accuracy results from investors substituting assumptions or past experiences for statistical reasoning due to representativeness bias (Waweru et al., 2008; Elhoushy, 2022; Pradinsha & Reshmi, 2023). When investors obsess on certain benchmarks, such starting prices or historical performance, it can cause anchoring bias and distort their decision-making (Dangol & Manandhar, 2020). Anchoring bias occurs when people make decisions based too heavily on the first piece of information they encounter (the "anchor"). For instance, even if fresh evidence indicates a different value, an investor may base their future assessments of a company around its historical price of $100 if they find out about it. This bias has the potential to distort perceptions and result in less-than-ideal investing decisions (Lockton, 2012; Chaudhary et al., 2025).

An individual's exaggerated conviction in their own knowledge, analytical prowess, or forecasting talents is known as overconfidence bias. This bias frequently shows itself in the context of investment as excessive trading, an overestimation of one's capacity to timing the market or choose profitable companies, and an underestimating of hazards. Such conduct may result in worse than ideal portfolio performance and heightened vulnerability to monetary losses. These conclusions are supported by recent research, which shows that overconfident investors typically trade more frequently and take on greater risk while frequently disregarding market signals and objective data (Kumar & Goyal, 2015; Elhoushy, 2022; Dahiru et al., 2023). When market circumstances

don't match their expectations, this might lead to large financial losses. Because it causes investors to overestimate their expertise and skills and take on unnecessary risk, overconfidence bias is especially harmful. These prejudices have important ramifications. Research shows that heuristic biases can result in poor portfolio performance and less-than-ideal investing choices (Ishfaq et al., 2020). By making erroneous comparisons between past and present performance, investors swayed by representativeness bias may overpay for stocks, frequently ignoring significant variations in market circumstances or firm-specific factors (Pradinsha & Reshmi, 2023).

In order to lessen the impact of these heuristic-driven mistakes, financial literacy is essential. Higher financial literacy often enables people to identify and avoid cognitive biases, leading to more logical and fact-based investing choices (Elhoushy, 2022; Dahiru et al., 2023). Investors might lessen their dependence on heuristics and enhance the caliber of their financial decisions by comprehending fundamental financial concepts and market mechanics. Given that these heuristic biases may affect investors' profits and losses; this study is pertinent to developing markets like Nepal. For example, since they trade often without having enough financial expertise, investors who suffer from the overconfidence bias may incur large brokerage fees and become more susceptible to severe losses (Parveen et al., 2020; Chaudhary et al., 2025). Even when market circumstances or business fundamentals differ dramatically, representativeness bias frequently causes investors to make decisions based on surface-level similarities, such as linking new companies to previous winners. Buying overpriced equities may result from this cognitive shortcut (Khan et al., 2022; Pradinsha & Reshmi, 2023). This bias is one of the main causes of less-than-ideal stock market decision-making, along with other behavioral reasons. Consequently, investors could stray from the most favorable investment prospects, which frequently results in reduced profits and lost financial possibilities (Elhoushy, 2022; Kumar & Goyal, 2022).

2. Literature Review and Hypotheses Development

By analyzing existing literature, there are several theories relating to heuristics biases which affect investment decisions such as dual process theory, heuristics-analytics theory, Kahneman and Tversky's Heuristics and Biases Framework, Prospect Theory and Affect Heuristics. This study primarily focuses on the Kahneman and Tversky's Heuristics and Biases Framework and Heuristics Analytic Theory.

Heuristics and Biases Framework

Experience-based mental shortcuts known as heuristic biases aid investors in solving issues and making decisions quickly, particularly in situations with little information and complicated scenarios. These biases can result in systemic mistakes in financial judgment, even if they are frequently helpful in daily decision-making (Elhoushy, 2022). Heuristics like representativeness and overconfidence can skew an investor's assessment of risk and return in investing situations, resulting in less-than-ideal investment decisions (Kumar & Goyal, 2022; Pradinsha & Reshmi, 2023). The concept originated from the work of Herbert Simon, who introduced the idea of bounded rationality in the 1950s. This theory posits that individuals often settle for satisfactory solutions rather than optimal ones due to cognitive limitations and incomplete information (Simon, 1957). When information is few and time is restricted, heuristics can be useful (Tversky & Kahneman, 1974).

The theory mainly looks at three important heuristics: Misconceptions of Chance, which makes people expect random processes to show local representativeness; Availability, which makes people estimate likelihood by how easily examples come to mind; and Representativeness, which makes people judge probabilities based on how closely an event resembles their preexisting mental stereotypes. The researchers showed that these heuristics result in expected cognitive biases, including a lack of awareness of sample size, a misunderstanding of randomness, and

insensitivity to prior probabilities. Tversky and Kahneman exposed basic flaws in human probabilistic thinking by demonstrating that humans frequently overlook important statistical considerations like base rates and sample sizes in favor of intuitive similarities and memorable instances. Their ground-breaking research exposed the systematic deviations of our instinctive judgments, challenging conventional wisdom on human decision-making. Their groundbreaking work challenged traditional views of human decision-making by exposing how our intuitive judgments systematically deviate from statistical logic, highlighting the complex interplay between cognitive shortcuts and rational assessment.

Heuristics Analytic Theory

The Heuristic-Analytic Theory of Reasoning examines human cognitive processes using two different systems: the explicit heuristic system and the explicit analytic system. The theory introduces three fundamental principles of hypothetical thinking: The Singularity Principle, which states that people only develop one mental model at a time; the Relevance Principle, which states that the model is pragmatically cued to be most relevant in the current context; and the Satisficing Principle, which asserts that mental representations are evaluated with reference to current goals. The tenets of heuristic processing state that people initially construct mental models from their past experiences, which are then assessed using more analytical reasoning techniques. Generally, the original model is adopted unless there are compelling counterarguments (Evans, 2006; Elhoushy, 2022). In complicated settings when information is confusing or inadequate, this dependence on first impressions without adequate examination might result in systemic mistakes in decision-making (Kumar & Goyal, 2015).

Over the years, recent studies have improved the understanding of cognitive biases result from the dynamic interaction between slower, more analytical reasoning and intuitive, context-driven processes. The revised dual process model highlights that the respective activation intensities of conflicting intuitions, logical (rule-based) and heuristic (experience-based), determine cognitive outcomes (De Neys & Pennycook, 2019; Travers et al., 2023). People tend to make faster, heuristic-driven judgments until these intuitions contradict, in which case reflective consideration might overcome the intuitive reaction and result in longer but more rational outcomes (De Neys, 2023). This contemporary concept goes beyond strict dual-system divisions by emphasizing how contextual elements, such cognitive load, influence whether heuristic or analytical processing predominates. For instance, studies requiring intentionality attribution and moral judgment demonstrate that reliance on heuristics tends to increase with increasing cognitive load (Travers et al., 2023). Biases are context-sensitive and not only the result of a fixed system, as evidenced by the increased likelihood that people misattribute intentionality in unfavorable situations while under high cognitive load.

Furthermore, current research emphasizes the significance of unconscious conflict detection. According to De Neys (2023), people may process logical validity implicitly even when they are not aware of a conflict between their intuitive and logical responses. This suggests that the line separating intuitive (Type 1) and analytic (Type 2) processes is hazier than previously believed. This sophisticated viewpoint offers a more thorough framework for comprehending human decision-making, reasoning, and the development of cognitive biases in a variety of activities. The initial idea has been broadened by more recent research; a 2023 thorough study identified 41 different biases in 108 studies and created the Heuristics-and-Biases Inventory (HBI) to standardize research methods. The three main heuristics—representativeness, availability, and anchoring—show how humans use mental shortcuts that put speed ahead of correctness, departing from pure logical thinking. These cognitive processes show that human judgment involves a complicated interplay between analytical thinking and intuitive mental strategies rather than a strictly rational approach. The framework offers vital insights into the fundamental cognitive processes that

influence human thought by demonstrating how people routinely make predictable mistakes in risk assessment, probability assessment, and decision-making.

Relationship between Variables and Hypothesis Development

Availability Bias and Investment Decisions

When making financial decisions, investors mostly depend on recent experiences, emotionally charged events, and easily retrievable memories, according to recent study by Zhang et al. (2024). Due to investors' preference for current or familiar information over thorough statistical research, this cognitive shortcut may result in serious errors in judgment. Making decisions based on information that is easily accessible rather than thorough study is known as the availability heuristic. The availability heuristic is the tendency for people to exaggerate the significance or likelihood of occurrences when such information is easier to recall from memory. Systematic mistakes in probability calculation and risk assessment result from this cognitive bias, which is more noticeable when information is fresh, often encountered, or emotionally salient (Dovetail, 2023). Investors frequently show a bias for local stocks, not always because of their inherent value, but rather because they are easier to remember and more familiar than less well-known but maybe better possibilities (Chaudhary, 2025). Because people depend on ease of recollection rather than thorough analysis, the availability heuristic makes decision-making easier in the face of uncertainty, but it can also lead to poor financial decisions and incorrect risk assessments (Chaudhary, 2025; Dovetail, 2023).

Hypothesis (H1): There is a significant relationship between Availability Bias and Investment Decisions.

Overconfidence Bias and Investment Decisions

An overestimation of one's knowledge or skills is a sign of overconfidence bias, which can result in excessive risk-taking (Odean, 1998; Giri & Adhikari, 2023; Chaudhary et al, 2025). According to recent research by Rodriguez-Fernandez et al. (2023), overconfidence bias results from intricate psychological processes in which people habitually overestimate their capacity for prediction. Male investors are more prone to engage in excessive trading and risk-taking because they overestimate their own financial competence, misjudge the market's complexity, and become less sensitive to potential investing hazards. It is often acknowledged that overconfidence bias plays a major role in financial decision-making, frequently causing people to overestimate their level of trading, more risk-taking, and therefore worse investment returns are all consistently linked to this tendency (Sharma & Prajapati, 2024). According to empirical study, overconfident investors are more prone to think they have better knowledge or insight, which leads to excessive trading and the rejection of wise outside counsel (Sharma & Prajapati, 2024; Giri & Adhikari, 2023). There is also evidence of gender variations in overconfidence: male investors are more likely than female investors to be overconfident, which causes them to trade more frequently and take on more risk (Barber & Odean, 2001; Sharma & Prajapati, 2024).

Hypothesis (H2): There is a significant relationship between Overconfidence Bias and Investment Decisions.

Representativeness Bias and Investment Decisions

Making probabilistic decisions based on perceived similarities to archetypal events is known as the representativeness heuristic. According to Chen and Liu (2024), investors usually: Use historical performance as a guide for the future. statistical base rates that are neglected, Construct

narrative-driven investment narratives and mistakenly assume that the results of tiny samples reflect the entire trend. Investors frequently rely their assessments of equities on past or current performance, expecting that a "hot" stock will continue to provide high returns without enough explanation. This propensity is sometimes caused by cognitive biases such sample size neglect, in which investors undervalue the variety and uncertainty available in restricted data by basing their decisions on tiny or non-representative samples (Sharma et al., 2024). These biases cause investors to extrapolate from current patterns, which may lead to less-than-ideal investing choices. According to Kahneman and Tversky (1974) and Sharma et al. (2024), investors also frequently disregard base rates in favor of the representativeness heuristic, which determines the likelihood of an occurrence by comparing it to a prototype or stereotype rather than statistical probabilities.

Hypothesis (H3): There is a significant relationship between Representativeness Bias and Investment Decisions.

Anchoring Bias and Investment Decisions

Investors consistently rely on initial price points; they make minimal cognitive adjustments in the face of new information; and they systematically underestimate market variability, according to recent research by Patel and Kumar (2024), which shows how initial information disproportionately influences subsequent financial decisions. People are considered to be anchoring when they rely an excessive number of their subsequent decisions on an initial piece of information (the "anchor"). Even though they are arbitrary, anchors have a big influence on choices, as shown by Kahneman and Tversky (1974). Investors may base their purchasing and selling choices on a stock's past price, making only little adjustments when new information becomes available (Mussweiler & Strack, 2001; Chaudhary et al, 2025). Therefore, individuals make inadequate modifications because they depend too much on preliminary knowledge (Hunguru et al., 2020).

Hypothesis (H4): There is a significant relationship between Anchoring Bias and Investment Decisions.

Mediating Role of Financial Literacy

The ability to make well-informed and efficient judgments about one's personal finances is known as financial literacy. Among other things, it entails comprehending ideas like debt management, investing, saving, and budgeting (Johnson & Sherraden, 2023). Higher financial literacy tends to make people more aware of financial dangers and possibilities, which helps them make better investment decisions and lessen their dependence on heuristics like representativeness or availability biases (Hastings & Mitchell, 2020). groundbreaking study by Dhakal and Lamsal (2024) revealed that financial literacy significantly impacts investment decisions by reducing cognitive bias susceptibility, enhancing rational decision-making processes and providing sophisticated risk assessment capabilities.

According to recent study by Patel and Kumar (2024), financial literacy is essential for reducing overconfidence bias, which has a big influence on investing choices. Investors with greater financial literacy are better able to comprehend market risks, which results in more reasonable and well-informed return expectations. This adjustment of return expectations lessens the propensity for overconfidence-related excessive trading activities. This is supported by thorough research by Zhang et al. (2024), which showed that financial literacy had a significant impact and might lower overconfidence bias by up to 45%. Financial literacy has been shown to attenuate overconfidence bias by providing investors with a more accurate understanding of market risks and realistic expectations about returns. Chen and Liu (2024) found that individuals with higher levels of financial literacy exhibited less overconfidence, making them less prone to excessive trading—a

common trait among overconfident investors that can reduce net returns.

Hypothesis (H5a): Financial literacy mediates the effect of overconfidence on investment decisions.

According to Chen et al. (2023), investors who understand mean reversion are less inclined to believe that a stock's historical success would persist permanently. This knowledge enables investors to make better logical, data-driven investing decisions by avoiding the "hot-hand fallacy," a prevalent cognitive bias associated with representativeness bias (Bashir et al., 2023). According to research by Bashir et al. (2023), increased financial literacy lessens the possibility that behavioral biases may affect the choices made by individual investors. Furthermore, according to Pompian (2023), financial education may help investors identify and lessen biases like representativeness, which will eventually improve the results of their investments. On the other hand, investors who possess a greater degree of financial literacy are better equipped to identify and counteract these cognitive biases, which results in more logical and knowledgeable investing choices.

Hypothesis (H5b): Financial literacy mediates the effect of representativeness on investment decisions.

Investors who possess higher levels of financial literacy are more inclined to weigh historical patterns, market fundamentals, and a wider range of information sources than to place undue emphasis on recent occurrences (Ashfaq et al., 2024). This encourages investors to view every choice more critically, which helps mitigate availability bias. Investors might reduce the impulsive responses brought on by availability bias by improving their understanding of market dynamics and the value of a disciplined, long-term strategy (Kathpal et al., 2023). This improved understanding enables more rational and informed investment decisions, reducing the likelihood of actions based solely on the most recent or salient information (Murphy & Seager, 2023).

Hypothesis (H5c): Financial literacy mediates the effect of availability on investment decisions.

Recent studies have shown that financially literate investors are better equipped to assess thorough information without the assistance of an anchor (Lusardi & Mitchell, 2024). By understanding and taking into account economic conditions and financial indicators that extend beyond initial anchor points, investors with a high level of financial literacy are able to make better investment decisions (Klapper et al., 2023).

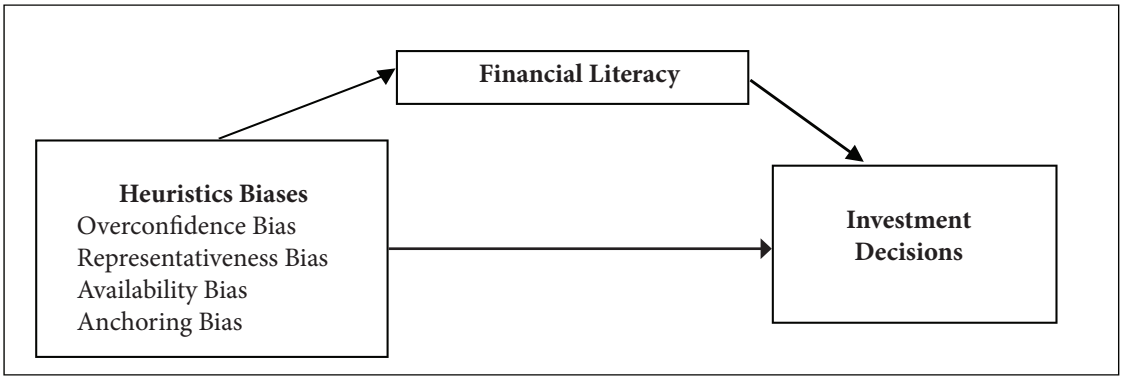
Hypothesis (H5d): Financial literacy mediates the effect of anchoring on investment decisions.

With greater financial literacy, investors are more likely to consider a broader set of information sources, past trends, and market fundamentals, rather than overemphasizing recent events (Hastings et al., 2013). The stated hypotheses demonstrate how, through the mediation of financial literacy, overconfidence, anchoring, representativeness, and availability can affect investing decisions. Stocks are being bought by investors who are willing to take a chance. Additionally, the rise in the individual's degree of financial knowledge will lessen heuristic biases, which will have a favorable impact on the investing choices of investors.

Conceptual Framework

Figure 1

Conceptual Framework of the Study



(Source: Kasoga, 2021)

3. Operational Definitions

Overconfidence Bias

When people overestimate their skills, expertise, or control over results, it's known as overconfidence bias, and it frequently makes them think they can outperform ordinary market participants in terms of returns. Active investors who believe they can accurately foresee market changes are particularly prone to this cognitive bias (Rana et al., 2023). These people also have a propensity to estimate probability based on vivid and easily remembered events, which is known as availability bias. For example, after hearing about a recent aircraft tragedy, people may overestimate the hazards of flying even while data shows it is safe (Agarwal & Ranjan, 2022). When combined, these biases have the potential to skew perceptions of risk and encourage illogical investing practices (Sharma et al., 2024).

Representativeness Bias

The representativeness heuristic describes people's propensity to judge an event's probability by how much it matches a typical instance or pattern. Investors frequently use this short cut in the financial markets by buying well-liked or historically successful stocks in the hope that prior performance will continue (Sharma et al., 2024). They avoid underperforming stocks as a result of this habit, not always because of fundamental research but rather because they seem to be comparable to past winners (Pradinsha & Reshmi, 2023; Khan & Khan, 2023).

Availability Bias

When investors base their selections on information that is easiest to remember rather than considering all pertinent information, this is known as availability bias. Short-term stock price volatility might result from this bias's contribution to market inefficiencies, such as overreactions to recent news events (Sharma et al., 2024). Zhang and Das (2023) stress that when investors are making decisions, news that is emotionally charged or widely published is often given more weight. Additionally, investors frequently rely on familiar and easily accessible sources, such as friends, family, or domestic news, which reinforces biased judgment and results in preferences for local equities over international ones, according to Agarwal and Ranjan (2022).

Anchoring Bias

Anchoring bias is a cognitive phenomenon in which people base a lot of their decisions on the first piece of information they come across. This first piece of information, known as a "anchor," has a big impact on later decisions and judgments and frequently results in systematic fallacies in thinking. For example, even if the automobile's true worth is less than both prices, someone may consider a later price of $25,000 to be a good deal if they initially saw a car priced at $30,000. Initial information can distort perceptions and result in poor decision-making results in a variety of circumstances, such as negotiations, financial decisions, and medical diagnoses (Simon & Read, 2023).

Financial Literacy

Many studies show that more financial literacy reduces the impact of cognitive biases by improving an investor's capacity to control risk and make wise choices (Ishfaq et al., 2020). Additionally, the interaction of these variables implies that raising financial literacy may improve investment results by giving investors the tools they need to successfully negotiate intricate financial environments (Mendis et al., 2024). This corpus of work emphasizes how crucial it is to comprehend not just the biases per se, but also how they interact with personal traits like financial literacy to influence investing choices.

4. Research Methods

Research Design

The research design employed in this study is a blend of descriptive and causal approaches. The descriptive research design enables a thorough and systematic portrayal of a population, scenario, or phenomenon, allowing the identification of characteristics, frequencies, trends, and categories. Meanwhile, the causal research design is used to explore relationships between the variables, revealing potential associations. Additionally, this study is cross-sectional in nature, as it is conducted at a single point in time where data is collected from 22nd October, 2024 to 3rd December, 2024.

Population and Sample

The study population was narrowed to encompass investors in the Kathmandu Valley stock market. A non-probability convenience sampling method was utilized, resulting in the sample size of 228 participants. Convenience sampling suits this research as it enables voluntary and flexible participation, with questionnaires distributed at the convenience of both participants and the researcher. Moreover, convenience sampling is suitable in this study as the sample need not be highly representative (Golzar et al., 2022). The unit of analysis is the individual investor. Out of 369 questionnaires distributed, 228 were returned, achieving a response rate of 61.79%.

Instrument and Measurement

The primary data collection method for this study involved surveying individual stock market investors using standardized 5-point Likert scale questionnaires. These questionnaires ranged from 1 (Strongly Agree) to 5 (Strongly Disagree), enabling a structured assessment of participants' attitudes and perceptions. For overconfidence bias, 4 items from Shahzad et al. (2024) and 1 item from Jain et al. (2023) have been adapted. Likewise, representativeness bias has adapted 4 items from Shahzad et al. (2024) and 3 items from Jain et al. (2023), availability bias has adapted 4 items from Shahzad et al. (2024) and 2 items from Jain et al. (2023), and anchoring bias has adapted 5 items from Shahzad et al. (2024) and 2 items from Jain et al. (2023). 6 items from Jain et al. (2023) have been adapted for investment decisions. Moreover, 6 items from Garang (2016) have been adapted for Financial Literacy.

Data Analysis

In order to collect the data required to finish the survey, a Google form was created. The Likert scale was used to gather the data, and Microsoft Excel and SPSS version 24 were used to enter, tabulate, classify, and analyze the information. The respondents answered the following questions using a Likert scale: 1 means strongly agree, 2 means agree, 3 means neutral, 4 means disagree, and 5 means strongly disagree. Relationships between independent, mediating, and dependent variables were investigated using regression analysis, correlation, and Hayes' PROCESS Macro.

Reliability Analysis

Table 1

Reliability Testing of the Variables

Variables	No of Items (N)	Cronbach's Alpha
Overconfidence Bias	5	0.810
Representativeness Bias	7	0.710
Availability Bias	6	0.723
Anchoring Bias	7	0.719
Investment Decisions	6	0.723
Financial Literacy	5	0.712

Table 1 depicts the reliability statistics of the variables used in the study which is expressed through Cronbach's Alpha. Overconfidence Bias and Financial Literacy exhibit excellent reliability, highlighting their cohesiveness. Representativeness Bias and Anchoring Bias, which are abstract and challenging to measure, also show acceptable consistency, reflecting careful item design. Availability Bias and Investment Decisions provide precise measurements of behavioral tendencies and decision-making strategies.

Demographic Profile of the Respondents

Table 2

Demographic Profile of the Respondents

Characteristics	Categories	Frequency	Percentage (%)
Gender	Male	110	48.25
	Female	118	51.75
Age (in years)	20-30	118	51.75
	30-40	28	12.28
	40-50	58	25.44
	50-60	24	10.53
	More than 60	0	0.00
Qualification	High School	30	13.16
	Bachelors	112	49.12
	Masters	84	36.84
	Above Masters	2	0.88

Occupation	Public Service	22	9.65
	Academician	12	5.26
	Private Organization	88	38.60
	Student	72	31.58
	Self-Employed	24	10.53
	Others	10	4.39
Annual Income (in Rs)	Less than 30000	90	39.47
	30000-60000	42	18.42
	60000-90000	42	18.42
	90000-120000	26	11.40
	More than 120000	28	12.28
Experience of Investment (in years)	Less than 1	68	29.82
	1-3	48	21.05
	3-5	68	29.82
	5-7	24	10.53
	More than 7	20	8.77
Period of Investment	Short-term	106	46.49
	Long-term	122	53.51
Investment Objectives	Capital Appreciation	36	15.79
	Good Returns	98	42.98
	Tax Benefits	14	6.14
	All of the Above	80	35.09
Investment Range	Large Cap	48	21.05
	Mid Cap	100	43.86
	Small Cap	80	35.09

Table 2 postulates the demographic characteristics of the respondents. Gender representation is nearly balanced, with a slight predominance of females. The majority of respondents are younger, with the largest group falling into the early adulthood category representing an increased trend of investment in younger generations. Regarding educational qualifications, most respondents hold undergraduate or postgraduate degrees, indicating a generally well-educated sample. Professionally, individuals from private organizations form the largest group, followed by students and a diverse mix of public service workers, self-employed individuals, and others. Income distribution shows a significant portion earning below the average range, with fewer participants in higher income brackets. Investment experience is diverse, with respondents evenly spread between beginners and those with moderate experience, while only a few have extensive investment backgrounds. Investment periods reflect a slight preference for long-term over short-term strategies. When considering investment objectives, respondents primarily aim for good returns, though many also value a combination of growth, returns, and tax benefits. Investment preferences highlight a strong inclination towards mid-cap and small-cap assets, with fewer participants favoring large-cap investments. This data illustrates a diverse sample with varied financial knowledge, goals, and strategies, making it suitable for studying investment behaviors and biases.

5. Results

Descriptive Statistics

Table 3

Descriptive Statistics of the Variables

Variables	Mean	SD	Skewness	Kurtosis
Overconfidence Bias	2.5632	.68903	-.115	-.424
Representativeness Bias	2.2694	.47853	.137	-.226
Availability Bias	2.2427	.51986	.114	.395
Anchoring Bias	2.2080	.47452	.441	.911
Investment Decision	2.2427	.52734	.045	.054
Financial Literacy	2.1018	.51974	.681	.984

Table 3 depicts the descriptive analysis of the variables. Overconfidence bias scores suggest moderate levels of confidence in investment abilities, with responses distributed slightly below the mean, indicating varied perspectives but a general tendency toward modest overconfidence. Representativeness and availability biases show lower reliance on heuristic shortcuts, with slight positive skewness suggesting that some respondents lean toward relying on these biases more than others. Anchoring bias exhibits a lower mean, indicating limited dependence on initial information, but the responses are notably consistent, with many clustering above the mean. Investment decisions reflect moderate satisfaction among respondents, with symmetrical and relatively normal distribution, indicating consistent and balanced decision-making tendencies. However, financial literacy stands out with the lowest mean, suggesting a notable gap in respondents' understanding of financial concepts. Its skewed and peaked distribution indicates a lack of diversity in literacy levels, with many respondents showing lower proficiency. Overall, the results point to a need for targeted financial education to bridge knowledge gaps and enhance investment behavior.

Correlation Analysis

Table 4

Correlation Matrix

Variables	ID	OB	RB	AB	ANB	FL
Investment Decision	1					
Overconfidence Bias	.519**	1				
Representativeness Bias	.326**	.304**	1			
Availability Bias	.206**	.087	.572**	1		
Anchoring Bias	.498**	.337**	.470**	.453**	1	
Financial Literacy	.551**	.298**	.213**	.176**	.548**	1

Table 4 shows the Pearson Correlation Analysis, which reveals the connections between financial knowledge, investing choices, and different biases. According to the findings, those who possess greater financial literacy typically make wiser investing choices. Overconfidence bias is linked to representativeness and anchoring biases, meaning that when investors overestimate their skills, they rely more on past trends and initial impressions. Representativeness and availability biases are strongly related, meaning people use past experiences and easily available information to

make decisions. Overall, having good financial knowledge and being comfortable with risk helps in making better investment choices, while biases can lead to poor judgment and wrong decisions.

Regression Analysis

Table 5

Regression Analysis

Variables	Unstandardized Coefficients		t	Sig.	R^2	f
	B	SE				
(Constant)	0.531	0.168	3.16	0.002	0.389	35.447
Overconfidence Bias	0.295	0.044	6.712	0.000		
Representativeness Bias	0.059	0.076	0.785	0.434		
Availability Bias	-0.018	0.068	-0.266	0.791		
Anchoring Bias	0.39	0.071	5.515	0.000		

Table 5 postulates the regression analysis in the given model, Overconfidence Bias significantly impacts the dependent variable with a p-value of 0.000. Its coefficient of 0.295 and Beta of 0.385 suggest a strong positive relationship. Representativeness Bias has a p-value of 0.434, indicating no significant effect, with a weak coefficient of 0.059. Availability Bias also shows no significance, with a p-value of 0.791 and a very small negative coefficient of -0.018. Anchoring Bias, with a p-value of 0.000 and a coefficient of 0.390, is another significant predictor. Its Beta of 0.351 reveals a moderately strong relationship, making it a key factor influencing the dependent variable. Moreover, 38.90% change in investment decision is due to change in dependent variables and the remaining 61.10% is explained by some external factors.

Mediation Analysis

Table 6

Mediation Analysis

Relationship	Total Effect	Direct Effect	Indirect Effect	Confidence Interval		t-value	Conclusion
				LL	UL		
OB->FL->ID	0.3969	0.2976	0.0993	0.0535	0.1471	7.4519	Partial Mediation
p-value		0.0000					
RB->FL->ID	0.3591	0.2405	0.1186	0.0431	0.2005	3.9645	Partial Mediation
p-value		0.0010					
AB->FL->ID	0.2085	0.1138	0.0947	0.0245	0.1692	2.0041	Partial Mediation
p-value		0.0463					
ANB->FL->ID	0.5536	0.3115	0.2421	0.1476	0.352	4.3944	Partial Mediation
p-value		0.0000					

Table 6 shows partial mediation for all biases in their relationship with investment decisions through financial literacy. Overconfidence Bias (OB) has an indirect effect of 0.0993, with a significant t-value of 7.4519, indicating partial mediation. Representativeness Bias (RB) shows an indirect effect of 0.1186 and a significant t-value of 3.9645, also suggesting partial mediation. Availability Bias (AB) has an indirect effect of 0.0947, with a t-value of 2.0041, confirming partial mediation. Anchoring Bias (ANB) exhibits an indirect effect of 0.2421 and a t-value of 4.3944, supporting partial mediation.

6. Findings

The study shows that the maximum respondent agrees with anchoring, overconfidence, representativeness and availability bias to make any investment decision. The average score of each variable lies between 2 to 3 which is Agree to Neutral i.e. respondent's majority responded in "agree". It also postulates that the relationships between Investment Decisions (ID) and biases such as Overconfidence, Anchoring, and Representativeness Bias. Financial Literacy (FL) is strong and positive, indicating that higher financial literacy improves investment decisions. However, availability bias shows weaker correlations with Investment Decisions, suggesting its limited influence.

It also depicts that Overconfidence Bias and Anchoring Bias significantly influence Investment Decisions, with p-values of 0.000 and coefficients of 0.295 and 0.390, respectively, resulting acceptance of H2 and H4. Representativeness Bias and Availability Bias show no significant effect on investment decisions, rejecting H1 and H3. Overconfidence and Anchoring Biases are key predictors of investment behavior. The study also reveals partial mediation for all biases through Financial Literacy. The indirect effects for Overconfidence, Representativeness, Availability, and Anchoring Biases are significant, indicating that financial literacy partially mediates their impact on investment decisions, accepting H5. Therefore, financial literacy enhances the decision-making process by mitigating bias effects.

7. Discussions

The study aligns with existing literature that emphasizes the detrimental effects of heuristic biases on investment decisions. The current study looked at the mediating function of financial literacy as well as the impact of heuristic biases—more especially, anchoring, overconfidence, availability, and representativeness—on investing decisions. The results offer important new information on how investors' behavior and judgment in financial markets are impacted by cognitive limitations.

As evident by the results, investment decision-making behavior has been found to be highly impacted by anchoring bias, which is the tendency of investors to depend extensively on early information (anchors) such as historical stock prices or arbitrary standards. This supports the findings of Patel and Kumar (2024), who contended that investors make less-than-ideal financial decisions because they don't sufficiently modify their original pricing points. Likewise, there was a significant relationship between investment decisions and overconfidence bias, which is characterized by an exaggerated feeling of expertise and forecasting abilities. The results are consistent with the findings of Sharma & Prajapati (2024) and Rodriguez-Fernandez et al. (2023), who highlighted that overconfident investors frequently overestimate their competence levels, which results in excessive trading and increased risk-taking behavior. According to Barber and Odean (2001), this tendency has been more noticeable among male investors and represents differences in how men and women think when faced with financial uncertainty.

The study's result has been consistent with the study of Kasoga (2021), where the results showed that heuristics biases are determinants of investment decisions. This study showed a mean which leans more towards agreement showing that investors rely on mental shortcuts such as availability, overconfidence, representativeness and anchoring bias while making investment decisions. The finding is consistent with research by Ishfaq et al. (2020), which also concluded that heuristic biases contribute to poor portfolio performance due to irrational decision-making. Likewise, the study also emphasizes that these biases are particularly pronounced among Nepalese investors, who may lack adequate financial literacy to counteract their effects, aligning with the same research which also report that cognitive biases significantly impair portfolio performance across various markets.

Both findings emphasize how important it is for investors to be aware of these biases in order to make wise choices. Similarly, the study demonstrates that heuristic biases have a stronger influence on investment decisions when they are mediated by financial literacy. Additionally, there are similarities between the study and the research conducted by Kumara and Kawshala (2021). The findings demonstrated the importance of anchoring bias in investing decision-making. On the other hand, when it comes to making investment decisions, availability and representativeness bias are not very important. The study also demonstrates similarities with Shunmugasundaram and Sinha (2024), demonstrating the substantial influence of overconfidence bias on investing choices.

This study has some similarities to that of Shahzad et al. (2024), who found that anchoring bias and overconfidence bias significantly influence investing choices. In contrast to the results of this study, the study demonstrates that availability and representativeness bias have a substantial influence on investment decisions. The results slightly support the work of Jain et al. (2023), which found that risk perception mediates the major influence of anchoring bias and overconfidence bias on investing decisions. This study, however, also contradicted its findings since it found that both representativeness and availability bias had a major influence on investment choices. Furthermore, the study has similarities to Dangol and Manandhar's (2020) research, which demonstrated the substantial influence of anchoring bias and overconfidence bias on investing choices. However, in contrast to the study's findings, it also shows that availability bias has a major influence on investment decisions.

Likewise, the study's results have contrasted with the study by Khan et al., (2021) which shows that availability bias and representativeness bias has a significant relationship with investment decisions. Meanwhile, the study shows no significant relationship among these. This maybe because the researcher has used two heuristics biases, which is availability and representativeness bias itself, while this study model uses four heuristics biases. Thus, in presence of overconfidence and anchoring bias, availability and representativeness, do not have a significant impact on investment decisions. Interestingly, despite the literature's theoretical support for availability and representativeness biases (Chaudhary, 2025; Chen & Liu, 2024), the analysis found no statistically significant connections between these biases and investment choices. One possibility is that participants' decision-making environment may have included information that was easier to retrieve or less emotionally charged, both of which are crucial availability heuristic triggers (Zhang et al., 2024). Furthermore, the negligible impacts may have been explained by a decreased reliance on surface similarities (representativeness) brought about by a rising understanding of market intricacies and changing financial education. This study also makes a significant addition by demonstrating how financial literacy partially mediates the relationship between investment decisions and heuristic biases (overconfidence and anchoring). Financial literacy considerably lessened the impact of these biases, according to the mediation study, even if it did not totally eradicate them. This implies that having financial literacy enables investors to identify and account for cognitive limitations, resulting in more logical investing decisions. These results

support the claims made by Chen and Liu (2024) and Dhakal and Lamsal (2024) that people who are financially savvy are better equipped to understand market signals and are less likely to fall victim to cognitive traps.

Additionally, the mediation's partiality suggests that prejudices may still affect even financially savvy investors. Financial education improves analytical ability, although heuristic processing may still be used while making judgments in real time under pressure or ambiguity, as Lusardi and Mitchell (2024) pointed out. Therefore, in order to enhance practical judgment, educational interventions should target behavioral inclinations and psychological training in addition to theoretical financial principles.

An important component of this study is the mediating function of financial knowledge in reducing the impact of heuristic biases. This result is consistent with research by Grable & Roszkowski (2008) and Khan et al. (2017), which indicate that improved financial literacy can improve decision-making skills and lessen vulnerability to cognitive biases. Mendis et al. (2024) found a positive correlation between financial literacy and risk tolerance, indicating that informed investors are more likely to engage in rational investment behaviors. The study's claim that financially literate investors are better able to navigate the complexities of financial markets supports their findings.

While the study's findings are largely consistent with existing literature, some contrasts emerge regarding the specific impact of heuristic biases on investment decisions. For example, while the study emphasizes overconfidence bias as a prevalent issue among Nepalese investors, other studies such as those by Odean (1999) indicate that overconfidence may vary significantly across different cultural contexts and market conditions. This suggests that while overconfidence is a common bias, its manifestation and impact may differ based on regional investor behavior and market dynamics. Additionally, the study's focus on the Nepalese context highlights unique challenges faced by local investors, such as limited access to financial education resources compared to more developed markets. This contrasts with findings from developed markets where financial literacy programs are more prevalent and may mitigate heuristic biases more effectively (Dangol & Manandhar, 2020). Thus, while the core concepts remain applicable across contexts, the degree of influence exerted by these factors can vary significantly based on local conditions.

In conclusion, this study emphasizes how psychology and financial literacy interact to shape investing behaviors. The study lays the groundwork for creating focused investor education initiatives by emphasizing the detrimental effects of anchoring and overconfidence biases as well as the reducing role of financial knowledge. In order to better understand how demographic characteristics like age, income level, and educational background modify the efficacy of financial literacy in reducing prejudice, future research might look at the long-term benefits of financial training.

8. Conclusion

The study identifies a number of heuristic biases that have a big impact on investing choices, including overconfidence, availability, representativeness, and anchoring. These biases frequently cause investors to make bad investing decisions by causing them to make snap decisions without conducting sufficient research. For example, overconfidence bias can lead to excessive trading and greater risk-taking by making investors overestimate their capacity to forecast market changes. Comparably, representativeness bias can lead to incorrect predictions about a stock's future performance based on its historical performance, while availability bias may distort risk perceptions based on information that is readily remembered. By letting investors depend too much on preliminary information, anchoring bias makes decision-making even more complicated.

The study also highlights how financial knowledge may act as a mediator to lessen these biases. More financially literate investors are better able to identify and mitigate the impact of cognitive biases, which results in more logical choices. This result is in line with other research that emphasizes how crucial financial education is for improving investor behavior. Additionally, it is shown that one of the most important factors influencing how heuristic biases impact investing decisions is risk tolerance. While investors with lower risk tolerance may become too cautious and perhaps lose out on lucrative possibilities, individuals with higher risk tolerance may be able to accept risks in spite of cognitive biases.

The research provides valuable insights into how heuristic biases affect investment decisions in conjunction with financial literacy and risk tolerance among Nepalese investors. By identifying specific cognitive biases and emphasizing the importance of financial education, this study enhances our understanding of investor behavior within emerging markets. The findings underscore the necessity for both individual investors and policymakers to prioritize financial literacy as a means of fostering rational investment practices. As the landscape of investing continues to evolve, particularly in developing economies like Nepal, addressing the psychological barriers posed by heuristic biases will be essential for improving market outcomes and empowering investors. Future research could further explore these dynamics across different cultural contexts and examine the long-term effects of enhanced financial literacy on investor behavior and market efficiency. Ultimately, equipping individuals with both knowledge and awareness will be crucial for navigating the complexities of modern investing successfully.

9. Implications

The implications of the study's findings are profound for individual investors. By understanding the impact of heuristic biases on their decision-making processes, investors can develop strategies to mitigate these effects. For example, increasing awareness of common cognitive biases can help investors pause and critically evaluate their decisions rather than relying solely on intuition or recent experiences. Additionally, enhancing financial literacy through educational programs can empower investors with the knowledge necessary to navigate complex financial landscapes effectively. From a policy perspective, this study highlights the need for targeted educational initiatives aimed at improving financial literacy among investors in Nepal. Policymakers should consider implementing comprehensive financial education programs that address not only fundamental investment concepts but also the psychological aspects of investing. Such programs could equip individuals with tools to recognize and manage heuristic biases effectively, fostering a more informed investor base capable of making sound financial decisions.

10. Limitations and Direction for the Future Research

This study is limited by its use of convenience sampling and focus on investors solely from the Kathmandu Valley, which may restrict the generalizability of the findings to the broader Nepalese or global investor population. Additionally, the cross-sectional design does not capture changes in investor behavior over time. Future research could consider a more diverse and representative sample across different regions and employ longitudinal methods to assess how heuristic biases and financial literacy evolve. Further studies could also explore other psychological and demographic factors as well as add constructs like risk perception as mediating factors influencing investment behavior in emerging markets.

Conflict of Interest

Authors declare no conflict of interest while preparing this article.

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