



The Role of Financial Literacy in Mediating Overconfidence, Representativeness, Anchoring, and Availability Bias on Investment Decisions

ABSTRACT

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This study aimed to investigate the relationship between heuristic behavioral biases and investment decision-making among Generation Z in Banyumas Regency, based on Behavioral Finance Theory and Heuristic Behaviour Theory, using financial literacy as a mediator in the decision-making process. The methods used in this study are quantitative, employing purposive sampling techniques with data from Generation Z in Banyumas who invest in financial and real assets, comprising 282 respondents aged 18-29 years. Data were collected via a questionnaire and analyzed using the SmartPLS method to test the relationship among variables in the research model, as measured through questionnaire indicators. The results showed that availability has a significant positive direct effect on investment decisions; overconfidence and availability have significant positive effects mediated by financial literacy; whereas representativeness does not have a significant effect on investment decisions, either directly or indirectly. A key finding of this study is that financial literacy partially mediates heuristic behavior regarding investment decisions. The results of this study indicated that the higher a person's financial literacy, the more rational they will be in making investment decisions to achieve returns on their investments.

Keywords: Anchoring; Availability; Financial Literacy; Investment Decision; Overconfidence; Representativeness

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INTRODUCTION

Compared to previous years, the number of investors in Indonesia's capital market has increased significantly. The Indonesia Stock Exchange's data indicates that the overall number of capital market investors surpassed 20 million more precisely, 20.042.365 Single Investor Identification (SID) numbers by mid-December 2025. This figure represents an increase of approximately 34.8%, or 5.170.726 SIDs, from the total of

14.871.639 SIDs at the end of 2024 (Bursa Efek Indonesia, 2025). This increase in the number of investors reflects optimism about the Indonesian capital market.

Investing is not just about financial products like bonds, equities, and mutual funds but also includes real assets such as gold, real estate, land, and other forms of business. Real assets are assets that derive their value from their use in economic activities, such as land and buildings, which can generate income streams or appreciate in value over time (Bodie et al., 2014). In Indonesia, investing in real assets remains the dominant choice among the public because it is considered safer, easier to understand, and more stable in value when compared to financial assets, whose values tend to fluctuate. Gold, for example, is often used as an insurance plan against economic uncertainty and inflation, while real estate is generally viewed as capable of generating long-term returns through capital gains and passive rental income (Case & Shiller, 2003). Nevertheless, advances in digital technology have driven changes in investment behavior, particularly among Generation Z. According to Priporas et al. (2017), People born between 1997 and 2012 are part of Generation Z. Gen Z is becoming more interested in investing in financial assets due to easy access to information. The increasing number of Gen Z investors in Indonesia is indicative of this trend.

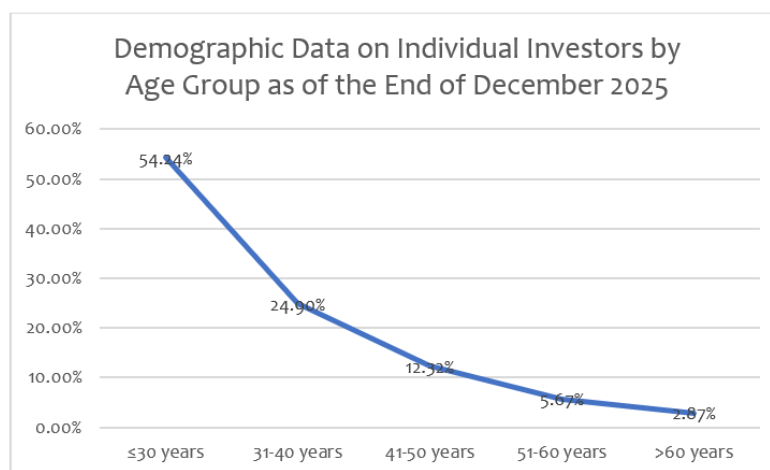


Figure 1. Demographic Data on Individual Investors by Age Group as of the End of December 2025

Source: Indonesia Central Securities Depository

Based on Indonesian individual investors' demographic information as of the end of December 2025, the age group ≤30 years old accounted for the largest share of investors at 54.24%, followed by the 31–40 age group at 24.90%, the 41–50 age group at 12.32%, the 51–60 age group at 5.67%, and the over-60 age group at just 2.87%. According to the data, Generation Z makes up the majority of investors in the Indonesian capital market, with over half of them being under 30.

The dominance of Generation Z as investors reflects the younger generation's strong interest in investing. However, investors frequently display cognitive behavioral biases when making financial judgments. If cognitive errors are not quickly detected and fixed, they might cause irrational decision-making and errors across the entire investing process (IRAM et al., 2023). This situation can also occur among Generation Z, who tend to be active on social media and are easily exposed to a variety of information about investing—both online and in their immediate surroundings. This can influence Generation Z's decision-making processes, both rationally and emotionally. Financial literacy is therefore required as a bridge to help investors make investment decisions. Investment decisions are strongly correlated with a person's degree of financial literacy. According to research performed by Sartika & Humairo (2021), investor behavioral biases influence investment decisions. Meanwhile, Fitra (2023) explains that behavioral biases cannot influence investment decisions. A common behavioral bias among investors is cognitive bias. When making investment decisions, individuals unconsciously rely solely on their existing knowledge and understanding, while disregarding other available information (Wendy, 2021). Tversky & Kahneman (1974) proposed a theory stating that people become irrational when faced with risk and uncertainty. In order to determine if behavioral finance concepts such as availability, anchoring, representativeness bias, and overconfidence have a direct or indirect impact on investing decisions, this study will look at financial literacy as a mediating variable.

According to the findings of the study by Wijayanti et al. (2024) and the study by Aulia et al. (2024), Overconfidence has a favorable impact on financial literacy. Wijayanti et al. (2024) found that representativeness has a favorable impact on financial literacy, in contrast to P. Kasoga (2021) study, which found no significant effect of representativeness on financial literacy. According to the study by IRAM et al. (2023), anchoring had no effect on financial literacy. These results are consistent with a subsequent study by IRAM et al. (2023) that likewise found no effect. While the results of the study by IRAM et al. (2023) indicate that availability has a positive impact on financial literacy, P. Kasoga (2021) found that availability has no effect on financial literacy.

Research has indicated that investing decisions were positively impacted by overconfidence (Adil et al., 2022; Dhungana et al., 2022; IRAM et al., 2023). Nevertheless, research shows that overconfidence has no bearing on investing choices (Fajri & Setiawati, 2023; Nuzula Agustin & Lysion, 2021; Tubastuvi et al., 2024). IRAM et al. (2023) discovered that investment decisions were unaffected by representativeness. In contrast, Raafifalah (2021) found that Representativeness has positive effects on investment decisions. Anchoring has a favorable impact on investing decisions, according to a study by (Loris & Jayanto, 2021). On the other hand, anchoring had little influence on investing choices, according to a study by Wijayanti et al. (2024). Dangol & Manandhar (2020) found that investment decisions were positively impacted by availability bias. The results of (Loris & Jayanto, 2021; Raafifalah, 2021), on the other hand, demonstrated that availability bias has little bearing on investment decisions.

Furthermore, financial literacy acts as a mediator in the relationship between overconfidence and investing choices IRAM et al. (2023). However, it did not moderate the association between overconfidence and investment decisions in Kasoga (2021) study. Furthermore, contrary to the findings of IRAM et al. (2023), who reported the opposite, Aulia et al. (2024) showed that financial literacy also mediates the association between representativeness bias and investment decisions. While some research suggests that financial literacy mediates the association between anchoring and investing decisions, Kasoga (2021) found no such relationship (Wijayanti et al., 2024). IRAM et al. (2023), stated availability and investment decisions were mediated by financial literacy, whereas Kasoga (2021), demonstrated that availability does not influence investment decisions through financial literacy.

In addition to identifying the function of financial literacy as a mediating variable in this relationship, this study expands on earlier research conducted by IRAM et al. (2023) On the influence of cognitive biases, such as overconfidence bias, representativeness bias, anchoring bias, and availability bias on investment decisions. Although the study by IRAM et al. (2023) Tested this model on a group of female entrepreneurs in Pakistan, the generalizability of its findings remains limited due to demographic, social, and investment environment characteristics that differ from those in Indonesia, particularly in Banyumas Regency.

This study will be conducted among Generation Z in Banyumas Regency. The selection of Gen Z as respondents in this study is based on their status as digital natives who have broad access to technology and digital investment tools, making them more likely to be exposed to various information about investing; however, this situation also increases their vulnerability to various psychological biases that may arise during investment decision-making. The selection of Banyumas Regency is based on the fact that its Generation Z population ranks second in Central Java according to the 2020 Population Census (Badan Pusat Statistik, 2020). The size of this population makes this region a relevant context for examining decision-making behavior among the younger generation, particularly regarding the influence of cognitive biases and the role of financial literacy.

The literature on cognitive biases such as overconfidence, representativeness, anchoring, and availability and their connection to investing decisions is one area in which this study contributes theoretically to the subject of behavioral finance. Additionally, this study finds that financial literacy is a mediating variable that both directly affects investing decisions and serves as a mechanism to either strengthen or lessen the influence of cognitive biases.

Practically speaking, this study should help Generation Z by offering a foundation for assessing strategies to raise financial literacy and comprehend the different types of cognitive biases that can affect investment decisions. It is anticipated that Generation Z will make more sensible financial choices as a result of this enhanced comprehension. In order to lessen cognitive biases, educational institutions and providers of investment

education are anticipated to incorporate the findings of this study into the design of more successful financial literacy programs for young investors.

LITERATURE REVIEW

Behavioral Finance Theory

The topic of behavioral finance examines how psychological variables, cognitive biases, and emotions influence investor behavior and decision-making (Baker & Nofsinger, 2010). Unlike traditional finance theory, which assumes investors always act rationally, according to this view, decisions are frequently impacted by psychological elements that cause people to act irrationally. The goal of this theory is to understand and predict how psychological factors can influence investor behavior in various financial situations. However, Olsen (1998) points out that to date, there is no comprehensive theory of behavioral finance, and findings in the literature have so far been limited to identifying decision-making characteristics. However, advances in behavioral finance have been successful in identifying a number of behavioral biases that affect investment decisions (Shefrin, 2002).

In the context of this study, Behavioral Finance Theory is used as a foundation to explain that investment decisions are influenced not only by information and rational considerations but also by behavioral biases and heuristics that can cause investors to make suboptimal investment decisions. Therefore, this study examines how these behavioral biases influence investment decisions, both directly and through financial literacy as a mediator.

Heuristic Behavior Theory

Heuristic theory explains that individuals tend to use simple ways of thinking, or mental shortcuts, when faced with situations that are complex, uncertain, or involve limited information (Tversky & Kahneman, 1974). People can make judgments more quickly and effectively by using heuristics, but this comes at the cost of introducing biases.

Tversky & Kahneman (1974) Identified representativeness, availability, and anchoring as the three primary categories of heuristic errors. Overconfidence has been recognized as a behavioral bias that affects investing decisions through excessive self-confidence as behavioral finance research has expanded (Heskes, 2000). Heuristic theory serves as a framework in this study to explain how financial literacy plays a mediating function in the interaction between behavioral biases and investing decisions.

Hypothesis Development

Overconfidence and Financial Literacy

Overconfidence in the context of investing is the propensity of investors to overestimate their skills and knowledge, which may have an impact on their choice of investments. Investment decisions are positively impacted by overconfidence, according

to several studies. Because they think they can forecast investing outcomes better than others, in general, overconfident investors engage in more transactions and assume higher risks. Overconfidence has a favorable impact on financial literacy, according to research by (Aulia et al., 2024; Wijayanti et al., 2024). In a different study, IRAM et al. (2023) showed that in order for overconfident investors to make wise choices, they must possess sufficient financial literacy.

H1: Overconfidence has a positive effect on financial literacy

Representativeness and Financial Literacy

Heuristic theory states that representativeness bias is a mental shortcut that uses a certain classification to evaluate probabilities (Tversky & Kahneman, 1974). Financial literacy is a strategy that helps people use financial products and services more wisely. A study indicates that was performed by IRAM et al. (2023) It has been found that representativeness has a positive effect on financial literacy. Other studies have also shown that representativeness had a positive effect on financial literacy (Aulia et al., 2024).

H2: Representativeness has a positive effect on financial literacy

Anchoring and Financial Literacy

The propensity to base a decision too much on an initial reference point, such as an asset's original price, is known as anchoring. In the context of behavioral finance, anchoring demonstrates that humans are not always rational when making financial decisions. As a result, having a solid understanding of finance can help people make better financial decisions and lessen the detrimental effects of this bias. According to Jameel and Siddiqui's research, which was later referenced in a Loris & Jayanto (2021) Publication, anchoring bias improves financial literacy.

H3: Anchoring has a positive effect on financial literacy

Availability and Financial Literacy

In behavioral finance, A cognitive bias known as availability bias occurs when a person chooses to base their decisions not on the most pertinent or accurate information, but rather on the information that is easier to remember or most easily accessible in their mind. This bias can affect a person's financial literacy because their financial decisions may be based on personal experiences, prominent examples, or information they have recently encountered, rather than on rational analysis. Availability bias in the context of financial literacy suggests that decisions are often based on easily recalled or recent information, rather than on rational judgment. According to research by IRAM et al. (2023), Availability has a significant positive impact on financial literacy.

H4: Availability has a positive effect on financial literacy

Overconfidence and Investment Decisions

The overconfidence bias is characterised by an individual's tendency to place excessive faith in their abilities, to the extent that they overlook other pertinent information. (Rona & Sinarwati, 2021). This bias can cause investors to feel more confident than they should be in their decisions, even when the evidence or data supporting those beliefs is insufficient. Investors who exhibit optimistic behavior during uptrends and pessimistic behavior during downtrends represent the prevailing bullish and bearish investment trends in the market. Research by Adil et al. (2022) and Dhungana et al. (2022) indicates that overconfidence had a positive effect on investment decisions.

H5: Overconfidence has a positive effect on investment decisions

Representativeness and Investment Decisions

Everyone has their own mental shortcuts, and representativeness is one of the most common mental shortcuts mentioned by Tversky & Kahneman, as cited in the article (IRAM et al., 2023). Investors tend to evaluate an investment based on its similarity to experiences or patterns they have encountered before. When an investment instrument has characteristics similar to a previously profitable investment, investors feel more confident in their decision-making. The stronger their representativeness bias, the greater its impact on the investment decisions they made. Andre Bustari (2023) study shows that representativeness has a positive effect on investment decisions.

H6: Representativeness has a significant positive effect on investment decisions

Anchoring and Investment Decisions

The tendency to base a judgment on the first piece of information received is known as anchoring bias. Even when more information is available, this initial information acts as an anchor or point of reference that influences subsequent decisions. According to a study by Loris & Jayanto (2021), anchoring significantly improves investing decisions.

H7: Anchoring has a positive effect on investment decisions

Availability and Investment Decisions

Availability bias refers to the tendency of investors to make investment decisions based on the most readily available information, without seeking deeper insights or additional data to verify its accuracy (Siraji, 2019). Investment success may be impacted by young investors' propensity for irrational conduct (Folkes, 1988). This might happen in the stock market when an investor chooses to invest in local companies' stocks over those of foreign companies because they are already familiar with them and have easy access to information about them (Waweru et al., 2008). When making investment selections, investors ultimately succumb to availability bias. Availability bias affects investment decisions, according to (Dangol & Manandhar, 2020; IRAM et al., 2023) found that availability affects investment decisions.

H8: Availability has a positive effect on investment decisions

Financial Literacy and Investment Decisions

A financially literate person can keep up with changes in the financial markets and make logical financial decisions (Eniola & Entebang, 2017). Financial literacy increases business efficiency by encouraging logical investment decision-making (Tuffour et al., 2022). Individuals with a high level of knowledge and awareness are more likely to handle their finances effectively and efficiently, as well as make prudent judgments (Pratamasari et al., 2024). Additionally, knowledgeable investors make more accurate investment decisions (Nuzula Agustin & Lysion, 2021).

H9: Financial literacy has a positive effect on investment decisions

Financial Literacy as a Mediator

According to Budiarto & Susanti (2017), financial literacy is the understanding of financial concepts and products that serves as the foundation for making rational decisions and achieving financial well-being. Financial behavioral biases, risk aversion, and investment decisions can all be mediated by financial literacy, according to heuristic theory. A person's declining cognitive abilities may make it more difficult for them to handle their finances. People can increase their variety of sensible investing options if they have sufficient financial literacy (Tuffour et al., 2022). IRAM et al. (2023) claim that financial literacy acts as a mediator in the association between overconfidence bias and investing decisions.

H10: Financial literacy mediates the relationship between overconfidence and investment decisions

The impact of reliance on representativeness bias is amplified by financial literacy. When making investing selections, investors that exhibit representativeness bias rely on prior performance because they anticipate continued success (Kasoga, 2021). Investment decisions and representativeness bias can be mediated by financial literacy.

H11: Financial literacy mediates the relationship between representativeness bias and investment decisions

Investment decisions are significantly impacted by anchoring bias. Depending on each person's degree of financial literacy, investors' anchoring bias influences investing choices in different ways. Reducing anchoring bias and offering pertinent financial literacy and information might enhance financial decisions (Altman, 2012). IRAM et al. (2023) claim that financial literacy among female entrepreneurs can help women who have anchoring bias make better investment decisions.

H12: Financial literacy mediates the relationship between anchoring and investment decisions

A psychological phenomenon known as availability bias characterizes the propensity to depend on information that has already been made public. On the other hand, sharing information and having effective communication skills might motivate investors to get the most recent information before making investment decisions. Because availability bias frequently depends on unknown information, it is essential to be financially literate in order to appropriately rely on such knowledge and make logical investment decisions (Khattak & Hussain, 2013).

H13: Financial literacy mediates the relationship between availability bias and investment decisions

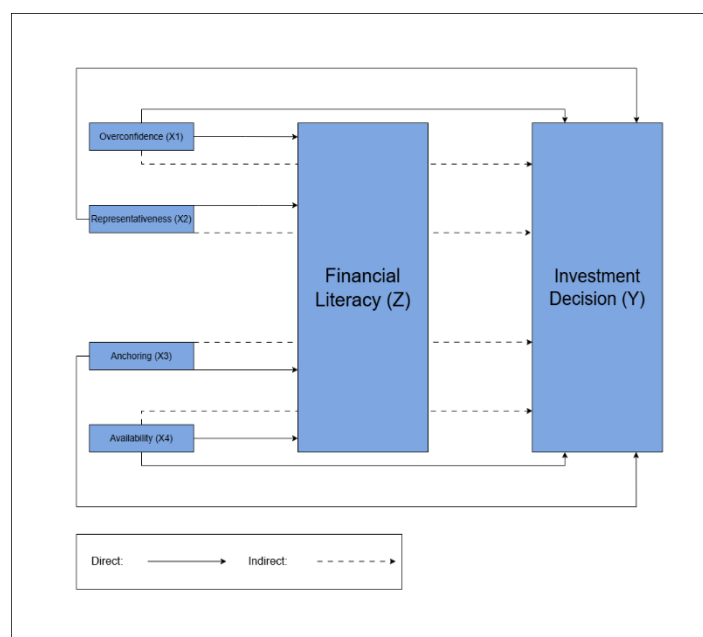


Figure 2. Conceptual Framework
Source: Data Processed by Author (2026)

METHODOLOGY

The quantitative research methodology employed in this study incorporated purposive sampling. The criteria for respondents in this study were Generation Z individuals aged 18–29 who live in Banyumas Regency. The population that constituted the subject of this study comprised Generation Z individuals in Banyumas Regency who have experience with or are involved in investment activities, such as individual investors in the capital market, users of digital platforms, and/or individuals who invest in real assets.

In determining the sample size, this study refers to the sample calculation proposed by (Hair et al., 2019), in which the ideal sample size is determined based on the number of indicators multiplied by 10. Since there are 27 indicators, the minimum required sample size is 270 respondents. This study successfully collected data from 282 respondents,

thereby meeting the required theoretical minimum threshold aimed at strengthening the model's structure.

The data were analyzed using SEM-PLS version 3 to examine the relationships among variables in the decision-making process. Individuals who invest in financial and real assets were the target group for the primary data collection. These investors completed the questionnaire via Google Forms, using a Likert scale ranging from one to five.

The questionnaire consists of several sections: the first section includes a statement that the individual makes investments and resides in Banyumas Regency; the second section describes the types of investments held; the third section of the text contains demographic information, while the subsequent sections delve into assertions concerning overconfidence, representativeness, anchoring, availability, financial literacy, and investment decisions.

This research instrument was adapted from the study by IRAM et al. (2023), which used questionnaire items that had been tested for validity and reliability. Variables such as overconfidence bias, representativeness bias, anchoring bias, and availability bias were adapted from Babajide & Adetiloye (2012) and subsequently validated by UI Abidin et al. (2017). The financial literacy variable was adapted from Mandell & Klein (2007), and the investment decision variable from Waweru et al., which was subsequently validated by Rasheed et al. (2018). The questionnaire items were adapted to suit the research context, ensuring that the language used is more relevant and easily understood by respondents.

RESULT

Based on the data in Table 1, it can be found that all respondents were between the ages of 18 and 29, falling within the Generation Z category with 28.4% of respondents identifying as male and 71.6% as female. A total of 51.4% of them invest in real assets, 33.7% invest in financial assets, and the remaining 14.9% invest in both types of assets. The largest proportion of respondents are high school graduates or equivalent (58.9%), and the majority are college students (66.3%). From an economic perspective, the majority have an income of approximately IDR 1.000.000 – IDR 2.500.000, accounting for about 43.3%.

Table 1. Respondent Demographic Data

Variable	Category	Total	Percentage (%)
Domicile	Banyumas	282	100
Investment Type	Real Asset	145	51.4
	Financial Asset	95	33.7
	Both	42	14.9
Gender	Male	80	28.4
	Female	202	71.6
Age	18-29 Years Old	282	100
Educational Background	Junior High School	0	0
	Senior High School	166	58.9
	Diploma	13	4.6
	Bachelor's Degree	101	35.8
	Master's Degree	2	0.7
	Others	0	0
Occupation	Student / College Student	187	66.3
	Employee	36	12.8
	Civil Servant / Private Employee	29	10.3
	Entrepreneur	29	10.3
	Others	1	0.3
Income/Allowance (IDR)	< IDR 1.000.000	43	15.2
	IDR1.000.000 – IDR 2.500.000	122	43.3
	IDR 2.600.000 – IDR 5.000.000	63	22.3
	> IDR 5.000.000	54	19.2

Source: Data Processed by Author (2026)

Based on the results in Table 2, it shows that almost all outer loading values are around 0.7, with only the REP4 indicator showing a value of 0.626. Chin (1998) states that outer loading values between 0.5 and 0.6 are considered adequate. In agreement with Chin, Ghozali (2018) also emphasizes that in scale development research, outer loadings of 0.5–0.6 are still acceptable for meeting the criteria for convergent validity.

Table 2. Outer Loading

		Loading Factor
Overconfidence (OC)		
OC1	I am an experienced person.	0.749
OC2	I feel more confident in my own investment decisions.	0.709
OC3	I feel my knowledge and actions influence the outcome.	0.756
OC4	I tend to invest in things that I believe in.	0.727
OC5	I expect my investment decisions to be more cautious and mature compared to others.	0.716
Representativeness (REP)		
REP1	I try to avoid transactions that have performed poorly in recent times.	0.757
REP2	Analysis of recent transaction trends helps me make more accurate investment moves.	0.735
REP3	I prefer transactions whose characteristics represent the desired quality.	0.767
REP4	When I invest, I only rely on certain sources of information.	0.626
Anchoring (ANC)		
ANC1	In making my next investment decision, I rely on my previous experience in the market.	0.767
ANC2	I use my last investment decision as the main reference in predicting future market movements.	0.707
ANC3	A high level of profitability is the main factor driving me to invest.	0.747
ANC4	Greater investment returns encourage me to invest more.	0.755
Availability (AVA)		
AVA1	I prefer to invest domestically rather than abroad because local market information is easier to obtain.	0.760
AVA2	I consider information obtained from close friends and relatives to be reliable for making investment decisions.	0.786
AVA3	If I do not have enough information, I tend to follow the decisions of people around me.	0.719
AVA4	In making investment decisions, I give adequate consideration to the experiences and advice of others.	0.794
Financial Literacy (FL)		
LK1	I understand the potential risks that may arise from the investment decisions I make.	0.719
LK2	I am able to plan my finances for the future.	0.747
LK3	I can determine the type of financial products or services	0.712
LK4	I Compare the costs of various financial products and services before making an investment decision.	0.749
LK5	I am able to calculate the financial costs of the funds I invest.	0.778
Investment Decision (ID)		
KI1	I prefer to invest in safe options.	0.761
KI2	I prefer to invest in low to moderate risk options that offer good potential returns.	0.720
KI3	avoid high-risk investments even if they offer greater potential returns.	0.721
KI4	I make investment decisions with the goal of maximizing interest and returns.	0.715
KI5	In several investment decisions, I achieved better results than I previously expected.	0.756

Source: Data Processed by Author (2026)

Table 3. Construct Validity and Reliability

	Cronbach's Alpha	rho_A	Composite Reliability	AVE
Overconfidence	0.784	0.788	0.852	0.535
Representativeness	0.694	0.700	0.814	0.524
Anchoring	0.732	0.734	0.832	0.554
Availability	0.766	0.776	0.850	0.586
Financial Literacy	0.795	0.796	0.859	0.550
Investment Decision	0.787	0.789	0.854	0.540

Source: Data Processed by Author (2026)

Based on Table 3, the Cronbach's alpha values are all above 0.7, except for the representativeness item, which has a value of 0.694. However, several sources, such as Ghazali (2018), State that if the Cronbach's alpha coefficient exceeds 0.60, the items in the questionnaire are considered reliable. Composite dependability is frequently favored over Cronbach's alpha; as noted by (Chin, 1998), the composite reliability value should exceed 0.6. All numbers in the table above exceed 0.6. The table's validity can also be assessed by the Average Variance Extracted (AVE), which should exceed 0.5 (Chin, 1998). Table 3 shows that the AVE values for all items are greater than 0.5, ranging from 0.524 to 0.586.

Table 4. Discriminant Validity: Fornell-Larcker Criterion

	Anchoring	Availability	Investment Decision	Financial Literacy	Overconfidence	Representativeness
Anchoring	0.744					
Availability	0.542	0.765				
Investment Decision	0.541	0.566	0.735			
Financial Literacy	0.642	0.514	0.718	0.741		
Overconfidence	0.610	0.455	0.483	0.587	0.732	
Representativeness	0.641	0.479	0.510	0.582	0.714	0.724

Source: Data Processed by Author (2026)

Based on the test results in the Table 4, using the Fornell-Larcker criterion, the Anchoring construct has a VAVE value of 0.744; this value is higher than its correlation with the Financial Literacy construct (0.642). Furthermore, the VAVE value for Availability (0.765) is higher than its correlation with Investment Decisions (0.566). Similarly, Investment Decisions, Financial Literacy, Overconfidence, and Representativeness all exhibit VAVE values that are higher than their correlations with other constructs. According to Fornell & Larcker (1981), these findings show that the discriminant validity of each construct is adequate. As a result, every construct in this study satisfies the requirements for discriminant validity.

Table 5. Fitness of Model

	R Square	R Square Adjusted
Investment Decision	0.572	0.564
Financial Literacy	0.505	0.498

Source: Data Processed by Author (2026)

The test results in Table 5 indicate that the R-squared value for the Investment Decision is 0.572 and for Financial Literacy is 0.505. These values indicate that the model explains 57.2% and 50.5%, respectively; however, other factors not included in the research model account for the remaining portion. According to Sarstedt et al. (2021), These values fall into the moderate category.

Table 6. Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Result
H1: Overconfidence has a positive effect on Financial Literacy	0.206	0.209	0.080	2.570	0.010**	Accepted
H2: Representativeness has a positive effect on Financial Literacy	0.138	0.144	0.103	1.341	0.180	Rejected
H3: Anchoring has a positive effect on Financial Literacy	0.334	0.332	0.091	3.691	0.000***	Accepted
H4: Availability has a positive effect on Financial Literacy	0.174	0.170	0.093	1.869	0.062*	Accepted
H5: Overconfidence has a positive effect on Investment Decision	-0.010	-0.001	0.074	0.136	0.891	Rejected
H6: Representativeness has a positive effect on Investment Decision	0.071	0.083	0.080	0.882	0.378	Rejected
H7: Anchoring has a positive effect on Investment Decision	0.018	0.018	0.098	0.186	0.853	Rejected
H8: Availability has a positive effect on Investment Decision	0.247	0.244	0.061	4.044	0.000***	Accepted
H9: Financial Literacy has a positive effect on Investment Decision	0.544	0.532	0.101	5.401	0.000***	Accepted
Level signifikansi: 0.01***						
Level signifikansi: 0.05**						
Level signifikansi: 0.1*						

Source: Data Processed by Author (2026)

As shown in Table 6, the overconfidence variable has a positive effect on financial literacy, with a p-value of 0.010. In contrast to overconfidence, representativeness

shows no effect on financial literacy with a p-value of 0.180, so H2 is rejected. Similar to overconfidence, anchoring bias and availability bias showed positive effects on financial literacy with p-values of 0.000 and 0.062, respectively; thus, H3 and H4 are accepted. Additionally, a p-value of 0.891 indicated that the direct relationship between overconfidence and investment decisions was not significant, leading to the rejection of H5. Consistent with previous results, representativeness and anchoring also showed no significant effect on investment decisions with p-values of 0.378 and 0.853, respectively, so H6 and H7 were rejected. However, in contrast to the previous results, availability bias shows a positive effect on investment decisions within a p-value of 0.000, so H8 is accepted. Ultimately, H9 is accepted since a positive correlation between financial literacy and investment decisions was also discovered, with a p-value of 0.000.

Table 7. Indirect Effect Mediation Analysis

		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Result
H10:	Financial literacy mediates the relationship between overconfidence bias and investment decisions	0.112	0.109	0.044	2.558	0.011**	Accepted
H11:	Financial literacy mediates the relationship between representativeness bias and investment decisions	0.075	0.072	0.051	1.482	0.139	Rejected
H12:	Financial literacy mediates the relationship between anchoring bias and investment decisions	0.182	0.177	0.060	3.050	0.002***	Accepted
H13:	Financial literacy mediates the relationship between availability bias and investment decisions	0.094	0.096	0.061	1.550	0.122	Rejected
Level signifikansi: 0.01***							
Level signifikansi: 0.05**							
Level signifikansi: 0.10*							

Source: Data Processed by Author (2026)

Based on Table 7, H10 is supported, which show that financial literacy mediates the relationship between overconfidence bias and investment decisions with a value of 0.011. H11 is denied because, in contrast to overconfidence, representativeness is not mediated by financial literacy, with a value of 0.139. With a p-value of 0.002, H12 is accepted because financial literacy, like overconfidence, successfully mediates the relationship between anchoring bias and investment decisions. Finally, because financial literacy does not lessen the correlation between availability bias and investment decisions with p-value = 0.122, H13 is rejected.

DISCUSSION

The study's findings show that while representativeness has little effect on financial literacy, overconfidence, anchoring, and availability significantly improve it. These findings are consistent with those of Wijayanti et al. (2024) and Iram et al. (2023), who showed that overconfidence encourages individuals to enhance their financial literacy through a higher level of curiosity (Forbes, 2005). Furthermore, anchoring also has a significant positive effect on financial literacy because investors do not rely solely on initial information as a reference but also make adjustments by comparing it with the latest information, thereby enriching their financial literacy Wijayanti et al., 2024; Evans, 2008. Additionally, availability significantly improves financial literacy because the ease of accessing information through social media, technology, and the surrounding environment fosters the process of improving financial literacy (Bandura, 1977).

Unlike the previous three biases, representativeness does not influence financial literacy, consistent with the research by Wijayanti et al. (2024). This finding suggests that Generation Z investors tend to base their decision-making on experiences or patterns they perceive as similar, without necessarily relying on financial literacy. This aligns with Heuristic Theory, which states that representativeness is a mental shortcut that operates intuitively (Tversky & Kahneman, 1974).

According to other studies, investment decisions are significantly positively impacted by availability and financial literacy, but not by overconfidence, representativeness, or anchoring biases. Behavioral Finance Theory claims that overconfidence is often associated with investors' tendency to make overly confident decisions, which has the potential to reduce profitability (Barber & Odean, 2001). However, the study's findings suggest that overconfidence has no impact on investment decisions. This phenomenon suggests that high levels of self-confidence do not necessarily translate into investment decisions, as investors tend to reevaluate the information they possess before making a decision. Similar results were found for representativeness and anchoring, indicating that investors place greater emphasis on market conditions and current information rather than relying solely on experience or initial information (Iram et al., 2021; Pompian, 2012; Tversky & Kahneman, 1974).

On the other hand, although availability significantly favorably influences investment decisions, individuals still tend to rely on the information that is easiest to recall or obtain when making decisions. Additionally, financial literacy had the greatest impact of all the variables considered, demonstrating a strong positive effect on investment

decisions. This suggests that an individual's ability to understand financial information plays a significant role in investment decision-making. This finding supports Ajzen (1991) theory that strong cognitive abilities lead individuals to make more rational decisions.

Consistent with earlier research, the indirect testing results show that financial literacy mediates the association between overconfidence and anchoring and investment decisions (Iram et al., 2023; Kasoga, 2021; Wijayanti et al., 2024). These results suggest that overconfidence and anchoring can be channelled towards better investment decisions when tempered by sufficient financial literacy (Forbes, 2005).

The findings revealed that financial literacy does not mediate the relationship between representativeness and availability in investment decisions. Regarding representativeness bias, investors still tend to rely on similar patterns or past experiences even when they possess good financial literacy. Meanwhile, regarding availability bias, ease of access encourages decision-making based on the most readily recalled information without deeper evaluation; thus, financial literacy has not been able to bridge this relationship. These findings are consistent with Tversky & Kahneman's (1974) Heuristic Theory, which explains that representativeness and availability are mental shortcuts that operate spontaneously and intuitively. Therefore, Behavioral Finance Theory suggests that the effectiveness of financial literacy in reducing investors' behavioral biases shows different results depending on the characteristics of each heuristic bias.

CONCLUSIONS

The study's conclusions suggest that financial literacy acts as a mediator between investment decisions and heuristic behavioural biases in a number of ways. The analysis revealed that the link between overconfidence and anchoring in investment decisions is mediated by financial literacy. These findings indicate that investors do not rely solely on their self-confidence or the initial information they received, but instead enhance their financial literacy by seeking additional information to inform their investment decisions.

On the other hand, it was discovered that the relationship between availability and investment decisions was not mediated by financial literacy. This suggests that the impulsive nature of the availability characteristic leads investors to make spontaneous decisions without processing the information they receive through their financial literacy. Finally, the analysis shows that representativeness and investment decisions are not influenced by financial literacy. This result indicates that an individual's tendency to evaluate investments perceived as similar does not enhance their financial literacy; consequently, there is no mediation between representativeness and investment decisions by financial literacy.

Implications

In practice, this study will mitigate the detrimental effects of heuristic behavioural biases by helping investors to strengthen their financial literacy when making investment

decisions. To improve a better understanding of investment decision making behaviour, future studies could compare investors based on attributes such as gender or level of financial literacy.

Limitations and recommendation

This study has limitations because it examines four heuristic biases overconfidence, representativeness, anchoring, and availability and uses only financial literacy as a mediating variable. Therefore, future research could develop a study model by adding other heuristic biases or relevant mediating variables to provide a more comprehensive picture of the factors influencing investment decisions.

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