

Overconfidence Bias and Financial Literacy on Generation Z Investment Decisions: The Moderating Role of Risk Perception

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Abstract: *This study was conducted to examine the effect of overconfidence bias and financial literacy on Generation Z investment decisions, using risk perception as a moderating variable. This study employed a quantitative approach using a survey method through a structured questionnaire distributed to respondents. Sampling was carried out using purposive sampling involving 150 young Generation Z investors, born between 1997 and 2012, who were still actively investing in the Indonesian capital market. Data analysis was conducted using PLS-SEM with the assistance of SmartPLS 3.0. The results showed that overconfidence bias had no significant effect on Generation Z investment decisions ($\beta = 0.082$; $p = 0.119$), whereas financial literacy had a positive and significant effect on investment decisions ($\beta = 0.324$; $p = 0.000$). Risk perception was found to negatively moderate the effect of overconfidence bias on investment decisions ($\beta = -0.169$; $p = 0.039$), but it was not found to moderate the effect of financial literacy on investment decisions ($\beta = -0.111$; $p = 0.088$). This research model was able to explain 55.7% of the variance in Generation Z investment decisions ($R^2 = 0.557$). These findings confirm that financial literacy is the most dominant factor in improving the quality of investment decisions, while increasing risk awareness is needed as a control mechanism for the impact of overconfidence among young investors in the Indonesian capital market.*

INTRODUCTION

Generation Z has become one of the important groups in the development of investment activities in the Indonesian capital market. Young generations, particularly millennials and Generation Z under the age of 30, even represent 55% of investors in the Indonesian capital market (Tim

tvonenews.com, 2024). This increasing participation indicates that Generation Z has begun to show greater awareness of financial planning and future asset management. Easy access to digital investment platforms has also provided broader opportunities for Generation Z to become familiar with various investment instruments, such as stocks, mutual funds, bonds, gold, and crypto assets. Therefore, Generation Z investment decisions have become an important issue to examine because they reflect changes in the financial behavior of young people in the digital era. Although Generation Z participation in investment has continued to increase, the quality of their investment decision-making is not yet fully optimal. The high losses caused by illegal investments, which reached Rp139.67 trillion during 2017–2023, indicate that many young investors remain vulnerable to less rational investment decisions (Tim tvonenews.com, 2024). This condition may be influenced by overconfidence bias, namely the tendency of investors to be overly confident in their own analytical and predictive abilities, which may lead them to ignore existing risks (Kumar & Prince, 2023; Suresh G., 2024). On the other hand, financial literacy should help investors understand financial instruments, manage risk, and evaluate investment alternatives more rationally (Adil et al., 2022; Eduard et al., 2024). However, previous studies still show inconsistent findings regarding the effect of overconfidence bias and financial literacy on investment decisions, indicating the need for further research that considers risk perception as a moderating variable.

This study is important because the increasing participation of Generation Z in investment needs to be balanced with a deeper understanding of the psychological, cognitive, and risk perception factors that influence the quality of their investment decisions. The novelty of this study lies in examining the role of risk perception as a moderating variable in the relationship between overconfidence bias and financial literacy on Generation Z investment decisions, thereby explaining why excessive confidence and financial literacy do not always lead to the same investment decisions among investors. This study aims to analyze the effect of overconfidence bias and financial literacy on Generation Z investment decisions and to evaluate the role of risk perception in moderating these relationships.

LITERATURE REVIEW

Behavioral Finance Theory

Behavioral finance theory explains that investment decisions are not always made based on full rationality, but are also influenced by psychological, cognitive, and emotional factors. This theory challenges the classical financial assumption that investors always act rationally in processing information and choosing investment alternatives. Suresh G. (2024) explains that behavioral finance provides a framework for understanding how biases, emotions, and cognitive limitations influence individual financial decisions. In the context of this study, behavioral finance theory is used to explain how overconfidence bias and financial literacy shape Generation Z investment decisions. This theory is relevant because Generation Z investors have broad access to digital financial information, but their decisions may still be affected by cognitive bias and differences in financial understanding.

Prospect Theory

Prospect theory explains that individuals evaluate financial decisions based on perceived gains and losses rather than absolute outcomes. Kahneman & Tversky (1979) state that individuals tend to be more sensitive to potential losses than to equivalent gains. In investment activities, this theory helps explain why investors may respond differently to the same level of risk, depending on how they perceive possible losses. In this study, prospect theory is used to explain the role of

risk perception as a moderating variable. Investors with higher risk perception are expected to be more cautious in making investment decisions, even when they have high confidence or adequate financial literacy.

Investment Decisions

Investment decisions refer to the process of allocating funds or financial resources into certain investment instruments to obtain future economic benefits. Sharpe et al. (2009) explain that investment decisions involve the allocation of current resources with the expectation of generating returns in the future. In this study, investment decisions are understood as the decisions made by Generation Z investors in choosing investment instruments in the Indonesian capital market by considering return, risk, and investment time horizon. Mujianah et al. (2025) state that investment decisions can be measured through three main indicators, namely return, risk, and time factor. Therefore, investment decisions reflect not only the willingness to invest but also the ability of investors to evaluate potential benefits and risks before choosing an investment instrument.

Overconfidence Bias

Overconfidence bias is a cognitive bias that occurs when individuals overestimate their knowledge, ability, and accuracy in making decisions. In investment activities, overconfidence may lead investors to believe that their analysis and predictions are more accurate than they actually are. Kahneman & Tversky (1979) explain that cognitive bias can influence individuals in evaluating uncertainty and making risky decisions. Altaf & Jan (2023) found that Generation Z tends to have a higher level of overconfidence than previous generations because of the influence of digital information and social media. In this study, overconfidence bias refers to the tendency of Generation Z investors to have excessive confidence in their investment knowledge, ability, and choices.

Financial Literacy

Financial literacy refers to the knowledge, skills, and ability to understand and use financial information in making effective financial decisions. Lusardi & Mitchell (2014) define financial literacy as the ability to understand basic financial concepts and apply numerical skills in economic decision-making. In the context of investment, financial literacy helps investors understand financial instruments, evaluate risks, and manage personal financial resources more responsibly. Adil et al. (2022) explain that financial literacy can reduce irrational investment behavior by helping investors make more logical and informed decisions. Therefore, financial literacy is an important cognitive factor that may improve the quality of Generation Z investment decisions.

Risk Perception

Risk perception refers to an individual's subjective assessment of the possibility of loss and uncertainty in investment activities. Slovic (2016) explains that risk perception is shaped by how individuals interpret the probability and consequences of risk in a particular decision-making context. In investment decisions, risk perception influences how investors evaluate potential losses, uncertainty, and the safety of investment instruments. Githa Widyastuti & Murtanto (2024) state that risk perception reflects investors' assessment of potential risks that may arise from their investment decisions. In this study, risk perception is positioned as a moderating variable that may strengthen or weaken the influence of overconfidence bias and financial literacy on Generation Z investment decisions.

Hypothesis Development

Behavioral finance theory explains that psychological biases can influence investors in making

financial decisions. One cognitive bias that often appears in investment behavior is overconfidence bias, namely the tendency of investors to overestimate their knowledge, analytical ability, and predictive accuracy. Investors with a high level of overconfidence tend to make investment decisions more aggressively because they believe that they have better judgment than other investors. Kumar & Prince (2023) state that overconfidence consistently influences investment decision-making, while Zanah et al. (2026) found that overconfidence has a positive effect on Generation Z investment decisions. Therefore, the first hypothesis is formulated as follows:

H1: Overconfidence bias has a positive effect on Generation Z investment decisions.

Financial literacy is an important cognitive factor that helps investors evaluate investment alternatives more rationally. Investors with good financial literacy are expected to be more capable of understanding investment instruments, assessing risks, and managing financial resources effectively. Adil et al. (2022) explain that financial literacy can reduce irrational behavior in investment decision-making, while Eduard et al. (2024) found that financial literacy has a positive and significant effect on the investment decisions of Generation Z and millennial investors. Therefore, the second hypothesis is formulated as follows:

H2: Financial literacy has a positive effect on Generation Z investment decisions.

Prospect theory explains that individuals tend to be more sensitive to potential losses than to equivalent gains. In investment activities, risk perception can influence how investors respond to overconfidence bias. Investors with higher risk perception tend to be more cautious, even though they have strong confidence in their own investment abilities. Ahmad & Shah (2022) explain that risk perception has an important role in the relationship between overconfidence and investment decisions, while Sukma Ardini et al. (2023) found that risk perception can moderate the relationship between overconfidence and Generation Z investment decisions. Therefore, the third hypothesis is formulated as follows:

H3: Risk perception moderates the effect of overconfidence bias on Generation Z investment decisions.

Risk perception can also influence the relationship between financial literacy and investment decisions. Investors with good financial literacy and high risk awareness are expected to be able to use their financial knowledge more carefully in evaluating investment alternatives. Eduard et al. (2024) found that financial literacy and risk perception contribute to investment decisions, while Paramita & Palesta (2024) showed that the combination of financial literacy and risk perception influences Generation Z investment behavior. Therefore, the fourth hypothesis is formulated as follows:

H4: Risk perception moderates the effect of financial literacy on Generation Z investment decisions.

METHOD

This study used a quantitative approach with a survey method to examine the effect of overconfidence bias and financial literacy on Generation Z investment decisions, with risk perception as a moderating variable. The population in this study consisted of Generation Z individuals born between 1997 and 2012 who had investment experience and were still actively investing in the Indonesian capital market. The research sample consisted of 150 respondents selected using purposive sampling based on several criteria, namely belonging to the Generation Z category, having investment experience, still actively investing in the capital market, and being willing to complete the questionnaire in full. The research instrument was a structured

questionnaire containing statements regarding investment decisions, overconfidence bias, financial literacy, and risk perception, with indicators adapted from previous studies. The research data were analyzed using SPSS 26 for descriptive statistics and SmartPLS 3.0 with the Partial Least Square-Structural Equation Modeling (PLS-SEM) approach to test the measurement model, structural model, and moderating effects.

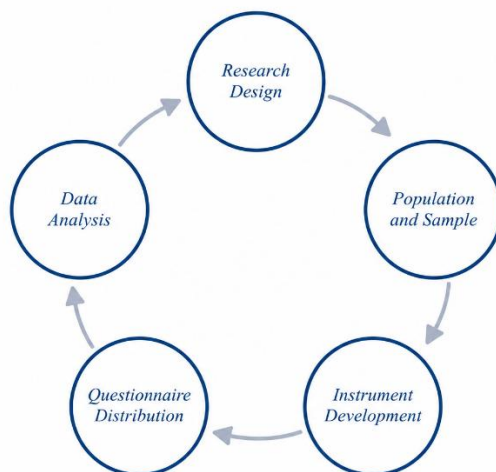


Figure 1. Research Procedure

Figure 1 shows the research procedure used in this study. The study began with determining the quantitative research design, followed by determining the population and sample using purposive sampling. The next stage involved developing the research instrument based on indicators from previous studies, distributing questionnaires to respondents who met the criteria, and analyzing the data using SPSS 26 and SmartPLS 3.0.

RESULT AND DISCUSSION

Respondent Characteristics

This study involved 150 Generation Z respondents who had investment experience and were still actively investing in the Indonesian capital market. The respondent characteristics in this study included gender, age, highest level of education, occupation, income level, length of investment experience, type of investment, and investment platform used. The detailed respondent characteristics are presented in Table 1.

Table 1. Respondent Characteristics

Category	Criteria	Frequency	Percentage (%)
Gender	Male	63	42.0
	Female	87	58.0
	Total	150	100.0
Age	14–17 years	9	6.0
	18–21 years	42	28.0
	22–25 years	46	30.7
	26–29 years	53	35.3
	Total	150	100.0

Highest Education Level	Senior High School/Vocational High School/Equivalent	54	36.0
	Diploma	31	20.7
	Bachelor's Degree	44	29.3
	Master's Degree	17	11.3
	Doctoral Degree	4	2.7
	Total	150	100.0
Occupation	Student	44	29.3
	Employee	49	32.7
	Civil Servant	29	19.3
	Entrepreneur	27	18.0
	Others	1	0.7
	Total	150	100.0
Income Level	< Rp 1,000,000	19	12.7
	Rp 1,000,000 – Rp 3,000,000	41	27.3
	Rp 3,000,000 – Rp 5,000,000	57	38.0
	> Rp 5,000,000	33	22.0
	Total	150	100.0
Investment Experience	< 1 year	35	23.3
	1–2 years	51	34.0
	2–3 years	37	24.7
	> 3 years	27	18.0
	Total	150	100.0
Type of Investment	Mutual Funds	36	24.0
	Stocks	17	11.3
	Bonds/Government Securities	6	4.0
	Gold	9	6.0
	Crypto	8	5.3
	Combination	74	49.3
	Total	150	100.0
Investment Platform	Bibit	47	31.3
	Ajaib	36	24.0
	Stockbit	11	7.3
	Other Securities Platforms	24	16.0
	Binance	1	0.7
	Combination	31	20.7
	Total	150	100.0

Based on Table 1, the majority of respondents in this study were female, totaling 87 respondents or 58.0%, while male respondents totaled 63 respondents or 42.0%. Based on age, respondents were dominated by the 26–29 age group, totaling 53 respondents or 35.3%, followed by the 22–25 age group with 46 respondents or 30.7%, the 18–21 age group with 42 respondents or 28.0%,

and the 14–17 age group with 9 respondents or 6.0%. This finding indicates that most respondents were in the productive young adult age range and had broader access to investment activities.

In terms of education, respondents were dominated by senior high school/vocational high school/equivalent graduates, totaling 54 respondents or 36.0%, followed by bachelor's degree graduates with 44 respondents or 29.3%, diploma graduates with 31 respondents or 20.7%, master's degree graduates with 17 respondents or 11.3%, and doctoral graduates with 4 respondents or 2.7%. Based on occupation, the largest group of respondents consisted of employees, totaling 49 respondents or 32.7%, followed by students with 44 respondents or 29.3%, civil servants with 29 respondents or 19.3%, entrepreneurs with 27 respondents or 18.0%, and other occupations with 1 respondent or 0.7%.

Based on income level, most respondents had a monthly income of Rp3,000,000–Rp5,000,000, totaling 57 respondents or 38.0%. In terms of investment experience, the majority of respondents had been investing for 1–2 years, totaling 51 respondents or 34.0%, indicating that most respondents were young investors with early to moderate investment experience. Based on the type of investment, 74 respondents or 49.3% chose a combination of more than one investment instrument, while mutual funds were the most common single investment choice, selected by 36 respondents or 24.0%. This finding shows that Generation Z investment decisions are closely related to the ease of access provided by digital investment platforms.

Measurement Model Evaluation

The measurement model evaluation was conducted to ensure that the indicators used in this study were valid and reliable in measuring their respective latent constructs. This evaluation included construct reliability, convergent validity, outer loading, and discriminant validity. In PLS-SEM, the measurement model evaluation is an important stage before testing the structural relationships between variables because it confirms whether the research indicators adequately represent the constructs being measured. The measurement model used in this study is presented in Figure 2.

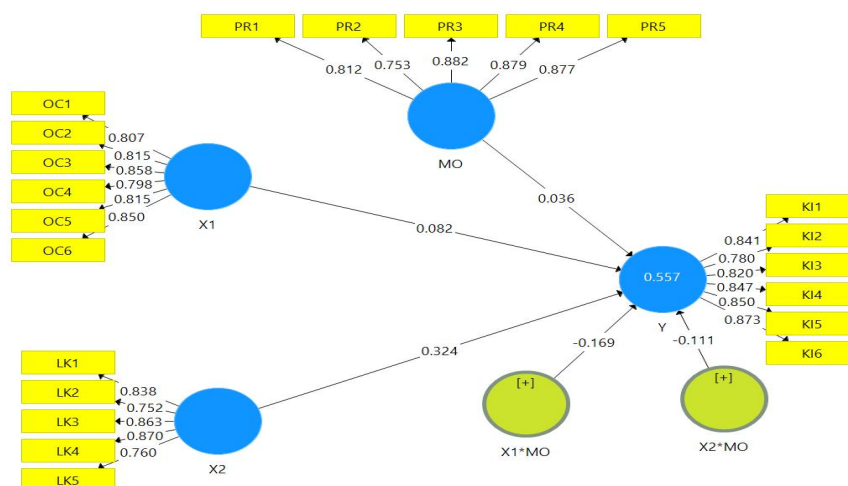


Figure 2. Measurement Model (Outer Model)

Figure 2 presents the PLS-SEM measurement model used to evaluate the relationship between each latent construct and its indicators. The model consists of four main constructs, namely overconfidence bias (X1), financial literacy (X2), risk perception (MO), and investment decisions (Y), which are measured using reflective indicators. In addition, the model includes two

interaction constructs, namely *X1MO* and *X2MO*, which were formed to examine the moderating role of risk perception. Therefore, the measurement model evaluation was conducted to ensure that all indicators met the validity and reliability criteria before proceeding to the structural model analysis.

Construct reliability testing was carried out by examining the values of Cronbach's Alpha and Composite Reliability, while convergent validity was evaluated using the Average Variance Extracted (AVE) value. The results of construct reliability and validity testing are presented in Table 2.

Table 2. Construct Reliability and Validity

Variable	Cronbach's Alpha	rho_A	Composite Reliability	AVE
MO	0,897	0,907	0,924	0,709
X1	0,906	0,919	0,927	0,679
X1*MO	1,000	1,000	1,000	1,000
X2	0,875	0,881	0,910	0,669
X2*MO	1,000	1,000	1,000	1,000
Y	0,913	0,918	0,933	0,698

Source: SmartPLS Output (2026)

Based on Table 2, all main constructs in this study met the criteria for reliability and convergent validity. The Cronbach's Alpha values for the constructs of risk perception, overconfidence bias, financial literacy, and investment decisions were above 0.70, indicating that the research instrument had good internal consistency. The Composite Reliability values were also above the minimum threshold of 0.70, ranging from 0.910 to 0.933, confirming that each construct had adequate reliability. In addition, the AVE values for all main constructs were above 0.50, namely 0.709 for risk perception, 0.679 for overconfidence bias, 0.669 for financial literacy, and 0.698 for investment decisions. Thus, all constructs in this study can be stated to have met the criteria for convergent validity.

Furthermore, outer loading testing was conducted to determine the extent to which each indicator was able to represent the measured construct. An indicator is considered valid if it has an outer loading value above 0.70. The results of the outer loading test are presented in Table 3.

Table 3. Outer Loading Results

Construct	Number of Indicators	Outer Loading Range	Highest	Lowest	Status
Investment Decisions (Y)	6	0.780–0.873	KI6 (0.873)	KI2 (0.780)	Valid
Overconfidence Bias (X1)	6	0.798–0.858	OC3 (0.858)	OC4 (0.798)	Valid
Financial Literacy (X2)	5	0.752–0.870	LK4 (0.870)	LK2 (0.752)	Valid
Risk Perception (MO)	5	0.753–0.882	PR3 (0.882)	PR2 (0.753)	Valid

Source: SmartPLS Output (2026)

Based on Table 3, all indicators of the investment decision, overconfidence bias, financial literacy, and risk perception constructs had outer loading values above 0.70. The investment decision construct had outer loading values ranging from 0.780 to 0.873, overconfidence bias ranged from 0.798 to 0.858, financial literacy ranged from 0.752 to 0.870, and risk perception ranged from 0.753 to 0.882. These results indicate that all indicators were able to validly

represent their respective constructs. Therefore, no indicators needed to be eliminated from the research model.

Discriminant validity was tested using the Heterotrait-Monotrait Ratio (HTMT) to ensure that each construct in the research model had adequate distinction from the other constructs. A construct is considered to meet discriminant validity if the HTMT value is below 0.90. The results of the HTMT test are presented in Table 4.

Table 4. Heterotrait-Monotrait Ratio (HTMT)

Variable	MO	X1	X1*MO	X2	X2*MO
MO					
X1	0,546				
X1*MO	0,468	0,543			
X2	0,579	0,554	0,567		
X2*MO	0,634	0,567	0,826	0,543	
Y	0,519	0,529	0,686	0,690	0,668

Source: SmartPLS Output (2026)

Based on Table 4, all HTMT values between constructs were below the threshold of 0.90, indicating that discriminant validity had been achieved. The highest HTMT value was found in the relationship between the interaction constructs X1MO and X2MO, with a value of 0.826; however, this value was still within the acceptable limit. These results indicate that each construct in the research model had adequate conceptual and empirical distinction, allowing each variable to be measured separately without excessive construct overlap. Thus, the measurement model in this study can be considered feasible to proceed to the structural model evaluation stage.

Structural Model Evaluation and Hypothesis Testing

After the measurement model met the validity and reliability criteria, the next stage was to evaluate the structural model. This evaluation was conducted to examine the explanatory power of the model and to test the hypothesized relationships among the research variables. The structural model evaluation focused on the coefficient of determination (R^2), path coefficient values, and the significance of each path obtained through the bootstrapping procedure. In this study, bootstrapping was conducted using 5,000 sub-samples in SmartPLS 3.0. The structural model showing the path coefficient values and R^2 is presented in Figure 3.

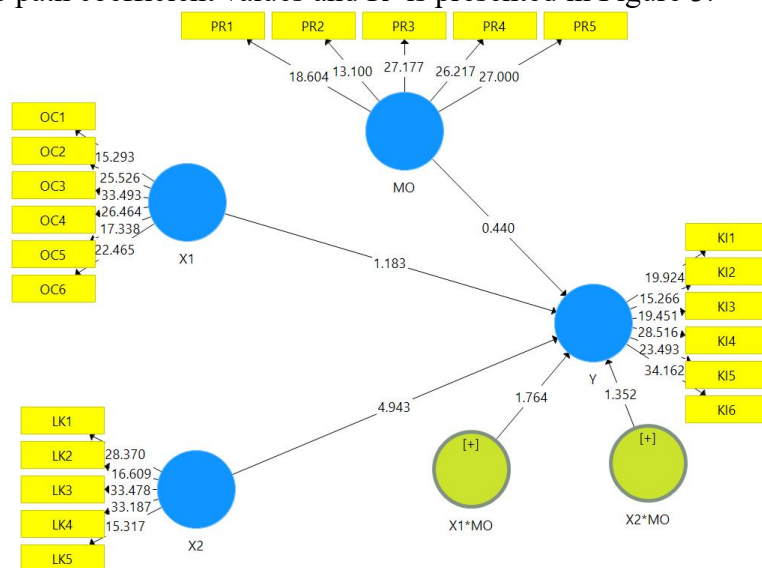


Figure 3. Structural Model with Path Coefficient Values and R^2

Figure 3 presents the structural model with path coefficient values and the coefficient of determination (R^2). The model shows the direct effects of overconfidence bias (X1), financial literacy (X2), and risk perception (MO) on investment decisions (Y), as well as the interaction effects of $X1MO$ and $X2MO$. The R^2 value of 0.557 indicates that the model explains 55.7% of the variance in Generation Z investment decisions, while the remaining 44.3% is explained by other factors outside the model. Thus, the structural model has adequate explanatory power for analyzing the factors influencing Generation Z investment decisions.

Hypothesis testing was conducted by examining the original sample, t-statistics, and p-values from the bootstrapping results. A relationship between variables was considered significant if the p-value was less than 0.05. The results of the path coefficient and hypothesis testing are presented in Table 5.

Table 5. Path Coefficients and Hypothesis Testing

Hypothesis	Path	Original Sample (O)	T Statistics	P Values	Decision
-	MO $\rightarrow$ Y	0.036	0.440	0.330	Not significant
H1	X1 $\rightarrow$ Y	0.082	1.183	0.119	Rejected
H2	X2 $\rightarrow$ Y	0.324	4.943	0.000	Accepted
H3	X1*MO $\rightarrow$ Y	-0.169	1.764	0.039	Accepted
H4	X2*MO $\rightarrow$ Y	-0.111	1.352	0.088	Rejected

Source: SmartPLS Output (2026)

Based on Table 5, the results of the first hypothesis test showed that overconfidence bias had a positive coefficient of 0.082 on investment decisions, with a t-statistics value of 1.183 and a p-value of 0.119. The p-value, which was greater than 0.05, indicated that the effect of overconfidence bias on investment decisions was not significant. Thus, H1 was rejected. This result shows that overconfidence bias was not empirically proven to directly influence Generation Z investment decisions.

The results of the second hypothesis test showed that financial literacy had a positive and significant effect on investment decisions. This was indicated by a coefficient value of 0.324, a t-statistics value of 4.943, and a p-value of 0.000. Since the p-value was less than 0.05, H2 was accepted. This finding indicates that the higher the financial literacy possessed by Generation Z investors, the better the investment decisions they make.

The results of the third hypothesis test showed that the interaction between overconfidence bias and risk perception had a negative coefficient of -0.169 on investment decisions, with a t-statistics value of 1.764 and a p-value of 0.039. The p-value, which was less than 0.05, indicated that risk perception was able to moderate the relationship between overconfidence bias and investment decisions. Thus, H3 was accepted. The negative coefficient indicates that risk perception weakens the effect of overconfidence bias on Generation Z investment decisions.

The results of the fourth hypothesis test showed that the interaction between financial literacy and risk perception had a negative coefficient of -0.111 on investment decisions, with a t-statistics value of 1.352 and a p-value of 0.088. Since the p-value was greater than 0.05, the moderating effect was not significant. Thus, H4 was rejected. This result indicates that risk perception was not empirically proven to moderate the relationship between financial literacy and Generation Z investment decisions.

Overall, the results of the structural model testing showed that financial literacy was a factor that had a significant direct effect on Generation Z investment decisions. Meanwhile, overconfidence bias did not have a significant direct effect, but its influence may change when interacting with risk perception. This finding shows that risk perception plays an important role as a control

mechanism in the relationship between excessive confidence and investment decisions. However, risk perception was not able to significantly strengthen or weaken the relationship between financial literacy and investment decisions.

Discussion

The Effect of Overconfidence Bias on Generation Z Investment Decisions

The results of this study showed that overconfidence bias had no significant effect on Generation Z investment decisions. This finding indicates that excessive confidence does not necessarily directly encourage Generation Z investors to make investment decisions. Although behavioral finance theory explains that psychological biases can influence financial decisions, the results of this study show that the effect of overconfidence bias does not always stand alone. Investors with a high level of overconfidence tend to feel more confident in their analytical and predictive abilities, but investment decisions may still be influenced by other factors, such as experience, market information, financial literacy, and risk perception. Thus, overconfidence bias in the context of Generation Z investors should be understood as a conditional psychological factor rather than a single determinant of investment decision-making.

This finding is in line with Komara et al. (2023) and Agarwal et al. (2025), who found that overconfidence does not have a significant direct effect on investment decisions. This result can also be explained by the presence of risk perception in the research model, as risk perception may restrain the direct influence of overconfidence on investment decisions. Ahmad & Shah (2022) explain that the effect of overconfidence on investment behavior tends to be related to how investors perceive risk. Therefore, the insignificant effect of overconfidence bias in this study does not mean that the variable is irrelevant, but rather indicates that its influence is more likely to emerge when interacting with other psychological factors, particularly risk perception. This result also differs from Zanah et al. (2026), Zahro & Singgih (2024), and Mujianah et al. (2025), who found that overconfidence has a positive effect on investment decisions. These differences reinforce the idea that the relationship between overconfidence and investment decisions is contextual and influenced by respondent characteristics, types of investment instruments, and the research model used.

The Effect of Financial Literacy on Generation Z Investment Decisions

The results of this study showed that financial literacy had a positive and significant effect on Generation Z investment decisions. This finding indicates that the better investors understand financial concepts, investment instruments, risk management, and personal financial allocation, the better the investment decisions they make. From the perspective of behavioral finance theory, financial literacy serves as cognitive capital that helps investors assess investment alternatives more rationally, systematically, and measurably. Investors with good financial literacy tend not only to follow trends or emotional impulses but also to consider the level of return, risk, and investment period before making decisions.

This finding is in line with Adil et al. (2022), who explain that financial literacy can help investors reduce irrational behavior in investment decision-making. The results of this study also support (Eduard et al., 2024), who found that financial literacy is the strongest predictor of investment decisions among Generation Z and millennial investors. In addition, Suresh G. (2024) emphasizes that investors with better financial literacy tend to be more capable of controlling behavioral biases when making investment decisions. Similar findings were also shown by Mujianah et al. (2025) and Paramita & Palesta (2024), who stated that financial literacy

contributes to more planned investment decisions. Thus, financial literacy can be understood as a key factor that strengthens the quality of Generation Z investment decisions.

The Moderating Role of Risk Perception in the Relationship between Overconfidence Bias and Investment Decisions

The results of this study showed that risk perception was able to moderate the effect of overconfidence bias on Generation Z investment decisions with a negative coefficient direction. This means that the higher the risk perception possessed by investors, the weaker the effect of overconfidence bias on investment decisions. This finding indicates that awareness of potential losses can function as a control mechanism for excessive confidence in investing. From the perspective of prospect theory, individuals tend to be more sensitive to potential losses than to equivalent gains. Therefore, investors with high risk perception will be more careful in evaluating investment alternatives, even though they have strong confidence in their own investment abilities.

This finding supports Sukma Ardini et al. (2023), who found that risk perception was able to moderate the relationship between overconfidence and investment decisions among Generation Z students. Ahmad & Shah (2022) also explain that risk perception has an important role in determining how investors respond to overconfidence in the investment decision-making process. In addition, Malik et al. (2026) emphasize that risk perception can influence the relationship between behavioral bias and investment decisions. Thus, risk perception can serve as a protective factor that helps Generation Z investors control the impact of overconfidence bias. This finding also strengthens the novelty of this study, because risk perception is not only positioned as a factor influencing investment decisions but also as a moderating mechanism that explains why overconfidence bias does not always lead to aggressive investment decisions.

The Moderating Role of Risk Perception in the Relationship between Financial Literacy and Investment Decisions

The results of this study showed that risk perception did not moderate the effect of financial literacy on Generation Z investment decisions. This finding indicates that the effect of financial literacy on investment decisions occurs directly and does not depend on the level of risk perception. Investors with good financial literacy are still able to use their financial knowledge and skills to evaluate investment decisions rationally, even though they may have different levels of risk perception. Thus, financial literacy has a more stable role than other psychological factors in shaping investment decisions.

This result differs from several studies that position risk perception as a factor that can strengthen the relationship between financial literacy and investment decisions. However, this finding can still be explained through the nature of financial literacy as a cognitive factor that works directly in the decision-making process. Eduard et al. (2024) and Paramita & Palesta (2024) show that financial literacy and risk perception both contribute to investment decisions, but such contributions do not always have to take the form of a moderating relationship. In the context of this study, risk perception plays a greater role in controlling the influence of overconfidence bias than in strengthening the relationship between financial literacy and investment decisions. Therefore, improving financial literacy remains an important strategy for enhancing the quality of Generation Z investment decisions, while risk perception is more relevant as a control mechanism for excessive confidence bias.

CONCLUSION

This study aimed to analyze the effect of overconfidence bias and financial literacy on Generation Z investment decisions and to evaluate the role of risk perception as a moderating variable. The results showed that overconfidence bias had no significant effect on Generation Z investment decisions, indicating that excessive confidence was not proven to be a direct factor determining investment decisions among the respondents in this study. In contrast, financial literacy was proven to have a positive and significant effect on investment decisions, indicating that an understanding of financial concepts, investment instruments, risk management, and personal financial allocation plays an important role in encouraging more rational investment decisions. In addition, risk perception was proven to negatively moderate the relationship between overconfidence bias and investment decisions, meaning that the higher investors' awareness of risk, the weaker the influence of excessive confidence in the investment decision-making process. However, risk perception was not proven to moderate the relationship between financial literacy and investment decisions, which means that financial literacy tends to work directly without depending on investors' level of risk perception. Theoretically, these findings strengthen behavioral finance theory by showing that Generation Z investment decisions are influenced not only by psychological factors but also by cognitive capacity in the form of financial literacy. These findings also support prospect theory because risk perception was proven to act as a control mechanism for the impact of overconfidence bias. Practically, the results of this study emphasize the importance of improving financial literacy and risk awareness among young investors so that they are able to make investment decisions more carefully, rationally, and based on information. This study has a limitation in terms of the sample size, which only involved 150 Generation Z respondents who were actively investing in the Indonesian capital market; therefore, the results cannot be widely generalized to all young investor groups. Future research is recommended to use a larger sample size, expand the geographical coverage of respondents, and consider other variables such as herding behavior, financial attitude, investment experience, social media influence, or fear of missing out to obtain a more comprehensive understanding of Generation Z investment behavior.

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