Indonesian Journal of Economic & Management Sciences (IJEMS)
Vol. 3, No. 6, 2025: 849-868

The Effect of Investment Literacy, Risk Tolerance, and Heuristics Bias on Investment Decisions of Generation Z in the Indonesian Capital Market

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A R T I C L E I N F O

Keywords: Investment Literacy, Risk Tolerance, Heuristics Bias, Investment Decisions

Received : 10 October
Revised : 15 November
Accepted: 15 December

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A B S T R A C T

The purpose of this study is to examine how Generation Z's investing choices in the Indon This study aims to investigate how investment knowledge, risk tolerance, and heuristic bias affect Generation Z's investment decisions in the Indonesian capital market. esian capital market are influenced by investment literacy, risk tolerance, and heuristic bias. Using a quantitative approach and survey method, data was collected from Generation Z students who have experience investing in the capital market. A total of 40 respondents participated. The results show that high investment literacy positively supports more rational investment decisions. Risk tolerance also positively influences an individual's ability to make long-term investment choices. Heuristic bias has a negative impact on the quality of decisions, as decisions tend to be influenced by emotions and social trends. These findings confirm that improving investment literacy and risk management can help Generation Z make smarter and more measured investment decisions in the Indonesian capital market

DOI: https://doi.org/10.55927/ijems.v3i6.32
E-ISSN: 2986-2795
https://journalijems.my.id/index.php/ijems/index

INTRODUCTION

The development of the Indonesian capital market in recent years has shown a positive trend with an increase in the number of retail investors, especially among the younger generation. Data from the Indonesia Stock Exchange (IDX) shows that most new investors are under the age of 30, known as Generation Z (Indonesia Stock Exchange, 2025). This generation grew up in the digital age with broad access to information, including knowledge about investment and finance. However, easy access to information does not always lead to better ability to make rational and measured investment decisions. The phenomenon of many young investors getting caught up in short-term trends and impulsive decisions is an important issue that requires further research.

Investment decisions involve a complex evaluation process, in which individuals consider factors such as risk, expected returns, and prevailing market trends. According to Hatta et al. (2025), financial literacy has a strong and positive impact on the investment choices made by Generation Z in Indonesia; individuals with better financial knowledge tend to make more prudent and informed investment decisions. For Generation Z, investment behavior is influenced not only by logical reasons but also by psychological and social factors. Investment literacy, which refers to the extent to which a person understands the basic principles of investment, risk, and how the capital market works, plays a crucial role. A lack of investment literacy can cause individuals to misinterpret opportunities and increase the likelihood of making poor decisions, while a high level of literacy generally leads to wiser investment choices based on analysis.

Risk tolerance is another key factor influencing investment behavior alongside investment literacy. According to Rizkia et al. (2023), the willingness to take risks significantly shapes the investment intentions of Generation Z in the capital markets, with higher levels of risk tolerance linked to increased investment activity. However, when risk is not fully understood, this willingness can turn into speculation and lead to poorly thought-out decisions. Risk tolerance describes how much potential loss an individual is prepared to endure in pursuit of gains. Generation Z tends to be more daring and receptive to risks compared to previous generations. Despite this, a lack of proper risk knowledge can cause that boldness to result in speculative and impulsive investment choices.

Moreover, heuristics bias also affects how individuals make financial decisions. Previous research shows that heuristics bias influences investment decisions by causing individuals to rely on intuitive judgment or subjective experience rather than rational analysis. Biases such as overconfidence, representativeness, and herding are often found among young investors, including Generation Z (Gufron & Wibowo, 2024). Heuristics bias describes the tendency to use intuition or subjective experience in decision-making instead of rational analysis. Common heuristics bias among young investors includes overconfidence bias (excessive confidence in one's abilities), representativeness bias (judging stocks based on resemblance to past experiences), and herding bias (following others' decisions without deep analysis). In the social media era,

where investment information spreads rapidly, these biases strengthen and can lead to irrational investment decisions.

Studies highlight the crucial role of investment literacy, risk tolerance, and heuristics bias in influencing how Generation Z makes investment choices. Research by Linda Angel Callista (2024) reveals that enhancing financial literacy and awareness of risk tolerance enables Generation Z to make smarter and more effective investment decisions. Furthermore, Muhamad (2025) demonstrated that financial literacy, risk tolerance, and risk perception concurrently have a significant impact on Generation Z's investment behavior. These results suggest that schools, market regulators, and financial service providers should implement targeted programs to educate and safeguard young investors.

This situation emphasizes the importance of examining how investment literacy, risk tolerance, and heuristics bias influence the investment choices of Generation Z. Gaining insight into these connections is vital not only for advancing financial education but also for helping educational bodies, market regulators, and financial sector participants create effective programs to educate and protect young investors.

This study focuses on Indonesia's Generation Z, a major force behind new capital market participants. The study uses a quantitative technique to examine how much risk tolerance, heuristic bias, and investment literacy affect the quality of investment decisions. The results are expected to provide empirical insights into young investors' behavior and serve as a foundation to improve the effectiveness of future capital market education and training programs.

Problem Statements

1. Is there a meaningful connection between investment literacy and the investment decisions of Generation Z in Indonesia's capital market?
2. Choices in the Indonesian capital market and their risk tolerance?
3. Are investment choices made by Generation Z investors in Indonesia's capital market unaffected by heuristic bias?
4. Do risk tolerance, heuristic bias, and investment knowledge all affect how Generation Z makes investments in Indonesia's capital market?

Research Objectives

1. To ascertain whether Generation Z's investment choices in Indonesia's capital market are significantly correlated with investing literacy.
2. To ascertain whether risk tolerance and Generation Z's investment choices in Indonesia's capital market are significantly correlated.
3. To ascertain whether there is an insignificant relationship between heuristics bias and investment decisions of Generation Z in Indonesia's capital market.
4. To test whether investment literacy, risk tolerance, and heuristics bias simultaneously affect investment decisions of Generation Z in Indonesia's capital market.

LITERATURE REVIEW

Investment Management

Bodie, Kane, and Marcus (2014) define investment management as both an art and a science involving the handling of an investment asset portfolio. This encompasses asset selection, diversification, and risk management aimed at optimizing investment outcomes in line with the investor's risk profile. Successful investment management depends heavily on the manager's ability to balance potential returns and risks by understanding both investor characteristics and market conditions. With the right approach, investment management can assist investors, including Generation Z, in making optimal decisions in capital markets by maximizing returns while minimizing risks through careful asset allocation and effective diversification strategies.

Portfolio Theory

The foundation of investment management lies in portfolio theory, developed by Harry M. Markowitz (1952). This model, known as the mean-variance portfolio theory, focuses on managing two key elements: expected return and risk (variance). The core principle is to maximize expected returns while minimizing risk through diversification within the portfolio. Investors create combinations of investment instruments so that the resulting portfolio is efficient, meaning it has an optimal return for a given level of risk and vice versa.

Investment Decisions

Investment decisions are the final result of a complex deliberation process involving rational and emotional factors. According to Baker and Nofsinger (2010), investment decisions are not based solely on objective analysis of returns and risks but are also influenced by behavior, experience, and individual psychological conditions. This process includes choosing investment instruments, timing of buying and selling, and the level of risk tolerance. For Generation Z, investment decisions are often shaped by non-economic factors such as stock popularity, influencer opinions, or social media trends.

Yusup (2024) shows that the combination of investment literacy, risk tolerance, and heuristic biases significantly affects how Generation Z makes investment decisions in capital markets. Individuals with high literacy and balanced risk tolerance tend to make more rational decisions, while those influenced by heuristic biases often make impulsive choices. A study by IJSSRR (2025) also confirms that the investment behavior of Generation Z in Indonesia is still largely driven by psychological and social influences rather than analytical considerations. This highlights the need to improve capital market education, focusing not only on knowledge but also on fostering healthy financial behaviors.

Investment Literacy

Investment literacy is a critical component of financial decision-making, especially in capital markets with high complexity. It refers to a person's ability to understand basic investment concepts, including the relationship between risk and return, diversification, inflation, as well as financial instruments such as stocks, bonds, and mutual funds. Lusardi and Mitchell (2014) state that good financial literacy enables individuals to make more rational decisions, avoid financial mistakes, and plan effectively. For Generation Z, investment literacy plays a strategic role as they grow up in a digital environment with wide but not always accurate access to information. The abundance of social media sources often causes confusion and hurried investment decisions.

Yusup (2024) argues that high financial literacy boosts Generation Z's confidence and ability to assess investment opportunities, while low literacy leads to risky speculative decisions. Research from IJSSRR (2025) also shows that young people in Indonesia still experience a gap between access to financial information and the ability to comprehend it. This makes many young investors easily influenced by public opinions, influencer recommendations, and short-term trends. Therefore, investment literacy is essential not just as theoretical knowledge but as a foundation for critical thinking and objective decision-making in the dynamic capital market environment.

Risk Tolerance

Risk tolerance describes the extent to which an investor can accept uncertainty and potential losses in their investment activities. Each person has a different level of risk tolerance, influenced by factors such as personality, experience, age, and financial literacy. According to Kahneman and Tversky (1979) in Prospect Theory, individuals do not always act rationally in assessing risk because they often fear losses more than they value equivalent gains. Generation Z is known as a group that is more daring and open to risky opportunities, especially due to easy access to digital investment platforms and social media that provide instant information. However, this courage often is not matched by a deep understanding of the risks involved.

Wilantari (2021) states that high risk tolerance without adequate financial literacy may encourage speculative behavior. Conversely, investors with a healthy risk tolerance can proportionally evaluate risks and potential returns, leading to better investment decisions. Asbaruna (2023) adds that risk tolerance plays a crucial role in shaping one's investment strategy. Investors with high risk tolerance prefer high-risk instruments like stocks, while more conservative investors tend to choose bonds or deposits. For Generation Z, high risk tolerance often relates to a desire for quick results but without sufficient fundamental analysis. Therefore, balancing the willingness to take risks with the ability to understand those risks is key to quality investment decision-making.

Heuristics Bias

In addition to literacy and risk tolerance, psychological factors such as heuristics bias significantly influence investment behavior. Heuristics bias refers to cognitive shortcuts that cause someone to make decisions based on intuition or past experience without thorough analysis. Kahneman and Tversky (1979) explain that people often use "fast rules" (mental shortcuts) to evaluate information, which can lead to mistakes in decision-making. The three most common heuristic biases among young investors are overconfidence bias, representativeness bias, and herding bias. Overconfidence bias leads individuals to be overly confident in their own analysis, often ignoring real risks (Barber & Odean, 2001).

Representativeness bias occurs when someone judges stock performance based on past experience without considering current fundamental conditions. Herding bias describes the tendency to follow others' decisions, especially when market information is ambiguous. Asbaruna (2023) finds that heuristic biases strongly influence Generation Z's investment decisions, especially through social media and online investment communities. This is supported by findings from Wijaya, Sembel, and Malau (2023), who explain that young investors in Indonesia often act based on trends or popular opinions rather than fundamental analysis. Yudhaputri (2025) emphasizes that herding bias is the most dominant bias in Generation Z due to social pressure and the desire to "not miss out on trends." This shows that even with improved investment literacy, psychological biases remain an unavoidable factor.

Generation Z

The generational cohort that is now becoming active investors, particularly in Indonesia's capital markets, is Generation Z, which was born between 1997 and 2012. They have unique characteristics that differentiate their investment behavior from previous generations. Putra and Sulhan (2023) explain that Generation Z is attracted to investing primarily due to the potential for future financial gains. However, they are also influenced by personal financial management behaviors, including high confidence levels and biases such as anchoring bias, which can affect investment decision-making.

Hypothesis Development

Research and previous findings indicate that investment literacy, risk tolerance, and heuristics bias play significant roles in shaping the investment choices of Generation Z in Indonesia's capital market. Strong investment literacy equips young investors with the necessary knowledge and confidence to make logical decisions and avoid mistakes stemming from a lack of information. Additionally, risk tolerance is vital as it shows how well Generation Z investors can handle market volatility and potential losses, influencing their investment selections. At the same time, heuristics bias, a type of cognitive shortcut, can result in less-than-ideal decisions by oversimplifying risk assessments and investment evaluations. Consequently, it is essential to examine both the individual and combined impacts of these factors on Generation Z's investment behavior.

H1: Investment Literacy has a positive and significant effect on Generation Z's Investment Decisions. In other words, the better the investment literacy of Gen Z, the more accurate and rational their investment decisions.
H2: Generation Z's investment decisions are positively and significantly impacted by risk tolerance. An individual is more likely to select investments with higher risk and possible returns if they have a higher risk tolerance.
H3: Generation Z's investment decisions are significantly and negatively impacted by heuristic bias. Because they are based on less objective factors, cognitive biases like herd mentality and overconfidence tend to lower the quality of financial judgments.
H4: Heuristic bias, risk tolerance, and investment literacy all significantly influence Generation Z's investment decisions at the same time. When taken as a whole, these three elements have a big impact on Gen Z's capital market investing choices.

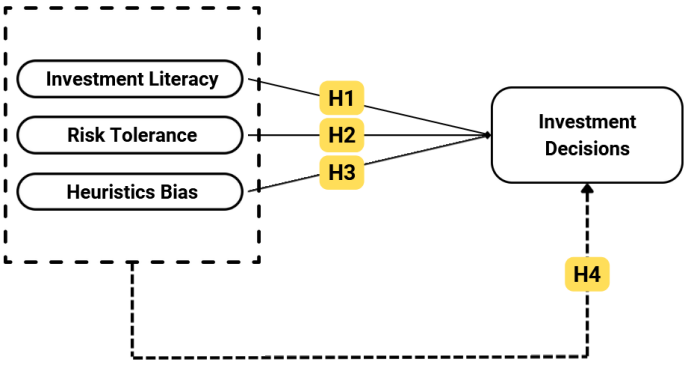

Figure 1: Conceptual Structure

METHODOLOGY

Type and Method of Research

This study uses descriptive survey methodologies in a quantitative manner. Because the research focuses on assessing correlations between variables that can be stated quantitatively and examined using statistical tools, the quantitative approach was chosen. This quantitative method allows researchers to test pre-formulated hypotheses in an objective and systematic manner. Through this approach, the extent of influence from independent variables, such as investment literacy (X_1), risk tolerance (X_2), and heuristics bias (X_3) on the dependent variable, investment decisions (Y), among Generation Z in Indonesia's capital market can be evaluated.

The survey method is utilized because it enables data collection from a large number of respondents in a relatively short time. Questionnaires also make it easier for respondents to answer independently and consistently. This way, the collected data more accurately reflects respondents' beliefs and behaviors.

Population and Sample

The population in this study includes all individuals classified as Generation Z in Indonesia, those born between 1997 and 2012 who have invested in the capital market. This generation was chosen because, according to recent reports from the Financial Services Authority (OJK) and the Indonesia Stock Exchange (BEI), Generation Z is the most engaged and powerful new investor group in Indonesia.

Generation Z's characteristics, shaped by the digital era, give them easier access to information and financial technology, including online investing. However, their investment approaches are often influenced by social media trends and recommendations from influencers. For this reason, this group is a key focus of the research.

Probability sampling techniques, which provide each member of the population an equal chance of being chosen, were used to determine the sample. The following responder criteria were applied in this study:

1. Part of Generation Z (aged 18–27 years).
2. Have experience investing in the Indonesian capital market, whether through stocks, mutual funds, or digital investment platforms.
3. Willing to participate voluntarily by completing the research questionnaire fully and honestly.

For the analysis in this study, the sample size was calculated using the formula developed by Isaac and Michael to determine the minimum number of respondents needed. The sample was drawn from a population of 69 students across three accounting program classes, with a 10% margin of error.

$$S = \frac{\lambda^2 . N . P . Q}{d^2 . (N - 1) + \lambda^2 . P . Q}$$

$$S = \frac{2{,}706 \text{ x } 69 \text{ x } 0{,}5 \text{ x } 0{,}5}{0{,}01 \text{ x } (69 - 1) + 2{,}706 \text{ x } 0{,}5 \text{ x } 0{,}5}$$

$$S = \frac{46{,}678}{1{,}357}$$

S = 34,398 = 34 Sample

Explanation:
S = Total sample
N = Total population
λ^2 = Chi-square based on degrees of freedom (df) and margin of error, where for a 10% error rate, chi-square = 2.706
P = Probability of correct (0.5)
Q = Inaccuracy probability (0.5)
d = Margin of error in decimal

From the entire student data collected, a sample of thirty-four was selected from this demographic. This approach is used in the study to guarantee that

every student in the population has an equal opportunity to participate, enabling the findings to be extrapolated to a larger population.

Types and Sources of Data

This study utilizes two types of data:

1. Primary Data
   Primary data is obtained directly from questionnaires completed by qualified respondents. This data covers respondents' perceptions, experiences, and knowledge regarding investment literacy, risk tolerance levels, habitual thinking patterns (heuristics bias), and how these factors influence their investment decisions.
2. Secondary data is used to support the analysis results and provide a broader context. Sources include various scientific references such as national and international journals, OJK research reports, BEI statistical data, and previous studies related to financial literacy and Generation Z investment behavior.

Data Collection Techniques

A Google Forms-distributed online survey was used to gather data. A five-point Likert scale was used to structure each statement in the questionnaire:

Scale	Description
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Multiple statements were provided for each variable indicator to thoroughly explore respondents' opinions on their investment understanding, attitudes toward risk, tendency to use heuristic biases, and their approach to making investment decisions

Operational Definitions of Variables

This study uses four main variables: investment literacy (X_1), risk tolerance (X_2), heuristics bias (X_3), and investment decisions (Y).

1. Investment literacy refers to an individual's level of knowledge and understanding of basic investment concepts, risks, and capital market mechanisms.
2. Risk tolerance describes an individual's ability to face uncertainty and potential investment losses.
3. Heuristics bias is the tendency to make decisions based on intuition or social influences without rational analysis.
4. Investment decisions represent an individual's actions in selecting investment instruments and strategies based on risk considerations and financial goals.

Multiple indicators organized as questionnaire statements on a five-point Likert scale are used to measure each characteristic.

RESEARCH RESULTS

Descriptive Analysis

This analysis aims to summarize the research findings, interpret the data, and provide deeper insights into the results, including respondent profiles and characteristics of the variables studied. The questionnaire consisted of 23 questions using a Likert scale, with 6 questions each for Investment Literacy (X1) and Heuristics Bias (X3), 5 questions for Risk Tolerance (X2), and 6 questions for Investment Decisions (Y).

The study focused on investment decisions among Generation Z university students. Data from the questionnaire was collected from 40 respondents from the 2023 Accounting Program cohort. Responses varied regarding investment literacy, risk tolerance, and heuristics bias, with Table 1 presenting key descriptive statistics supporting the main findings.

Table 1. Respondent Characteristics

Respondent Characteristics	Frequency	Percentage
Gender		
Male	14	35%
Female	26	65%
Age		
18-21 years	31	78%
> 22 years	9	23%
Semester		
5th semester	40	100%

Source: Processed data (2025)

The data above show that the largest proportion of respondents are female (65%), indicating higher participation among women. The age group 18–21 years accounts for 78% of respondents, meaning the sample is dominated by younger students, particularly Generation Z. All respondents are in the 5th semester (100%), which equalizes their level of academic experience.

Validity Test

The purpose of this study's validity test is to ascertain whether the questionnaire items are suitable and reliable for gauging the research data collected from participants. A questionnaire is deemed valid, according to Ghozali (2021), if its questions are able to describe or illustrate what the instrument is measuring.

If the computed r value for each question is higher than the r table value—which must be positive—an item is deemed strongly linked with the overall score (and hence legitimate). The r table value is derived from r 0,05:(40–2) at a significance level of 5%, yielding 0,312. The following table displays the validity test results:

Table 2. Validity Test Results

Variable	Indicator	r Value		r Table	Description
Investment Literacy (X1)	X1.1	0,451	>	0,312	VALID
	X1.2	0,333	>	0,312	VALID
	X1.3	0,524	>	0,312	VALID
	X1.4	0,338	>	0,312	VALID
	X1.5	0,639	>	0,312	VALID
	X1.6	0,516	>	0,312	VALID
Risk Tolerance (X2)	X2.1	0,591	>	0,312	VALID
	X2.2	0,616	>	0,312	VALID
	X2.3	0,647	>	0,312	VALID
	X2.4	0,589	>	0,312	VALID
	X2.5	0,664	>	0,312	VALID
Heuristics Bias (X3)	X3.1	0,567	>	0,312	VALID
	X3.2	0,338	>	0,312	VALID
	X3.3	0,612	>	0,312	VALID
	X3.4	0,452	>	0,312	VALID
	X3.5	0,645	>	0,312	VALID
	X3.6	0,698	>	0,312	VALID
Investment Decisions (Y)	Y.1	0,691	>	0,312	VALID
	Y.2	0,686	>	0,312	VALID
	Y.3	0,596	>	0,312	VALID
	Y.4	0,578	>	0,312	VALID
	Y.5	0,563	>	0,312	VALID
	Y.6	0,617	>	0,312	VALID

Source: Data processed using SPSS for Windows 27.00 (2025)

The data in table 2 indicates that all the indicators for Investment Literacy (X1), Risk Tolerance (X2), Heuristics Bias (X3), and Investment Decisions (Y) meet validity criteria, with their calculated correlation values surpassing the threshold of 0,312 at a 5% significance level. These findings confirm that the questionnaire items are appropriate for assessing how investment literacy, risk tolerance, and heuristics bias influence investment decisions among Generation Z.

Reliability Test

The purpose of conducting a reliability test is to determine the accuracy and effectiveness of the measurement instrument used in the research to collect data that is relevant and valid, thereby obtaining consistent and stable results when used repeatedly under similar conditions. According to Ghozali (2021), a questionnaire is considered reliable if the responses are consistent and stable, measured using Cronbach's Alpha technique. The criterion for reliability is met if the Cronbach's Coefficient Alpha is greater than 0,6.

Table 3. Reliability Test Results

Reliability Statistics	
Cronbach's Alpha	N of Items
0,790	23

Source: Data processed using SPSS for Windows 27.00 (2025)

The reliability of the questionnaire used in this study is demonstrated by the table above, where the Cronbach's Alpha value is more than 0.790. This indicates that the tool used to collect data on the research variables measures the pertinent phenomena precisely, consistently, and accurately.

Test for Shapiro-Wilk Normality

This study uses a normality test to ascertain whether the data set has a normal distribution. According to Ghozali (2021), this test is used to ascertain if the independent and dependent variables in a regression analysis are regularly distributed. When the sample size is smaller than fifty, the Shapiro-Wilk test is employed. The data are considered to be regularly distributed if the significance value is higher than 0.05.

Table 4. Results of the Shapiro-Wilk Normality Test

Tests of Normality			
	Shapiro-Wilk		
	Statistic	df	Sig.
Investment Literacy	0,953	40	0,950
Risk Tolerance	0,949	40	0,670
Heuristics Bias	0,947	40	0,590
Investment Decisions	0,964	40	0,230
a. Lilliefors Significance Correction			

Source: Data processed using SPSS for Windows 27.00 (2025)

The significant values for Investment Literacy (X1), Risk Tolerance (X2), Heuristics Bias (X3), and Investment Decisions (Y) are 0,950 > 0,05, 0,670 > 0,05, and 0,230 > 0,05, respectively, according to Table 4 above. These SPSS data analysis findings show that the data have a normal distribution with significance levels higher than 0.05.

Analysis of Multiple Linear Regression

Multiple linear regression analysis is used in the study to assess how several independent factors affect a dependent variable. This approach looks at whether the independent factors have an impact on the outcome variable, as explained by Ghozali (2021). In this case, the independent variables include Investment Literacy (X1), Risk Tolerance (X2), and Heuristics Bias (X3), with Investment Decisions (Y) serving as the dependent variable. The regression equation is as follows:

$$\mathbf{Y = \alpha + \beta 1\ X1 + \beta 1\ X2 + \beta 1\ X3 + e}$$

Where:
Y = Student Financial Stability
a = Constant
b = Regression coefficient
X1 = Budget Planning
X2 = Debt Management

X3 = Savings Management
e = Standard error

Table 5. Multiple Linear Regression Analysis

Model		*Unstandarized* B	Std. Error	*Standardized Coefficient* Beta
1	(Constant)	-6,682	5,178	
	Investment Literacy	0,465	0,169	0,453
	Risk Tolerance	0,326	0,140	0,338
	Heuristics Bias	0,051	0,159	0,048
a. Dependent Variable: Investment Decisions				

Source: Data processed using SPSS for Windows 27.00 (2025)

The analysis results in Table 5 yield the following regression equation:

$$\mathbf{Y = -6,682 + 0,465\ X1 + 0,326\ X2 + 0,051\ X3 + e}$$

The results obtained from the above equation are:

1. The constant coefficient ***a*** is -6,682, which is a significant negative value. This indicates that if there is no influence from the variables Investment Literacy (X1), Risk Tolerance (X2), and Heuristics Bias (X3), then the variable Investment Decision (Y) is predicted to decrease by 6,68%. This decline reflects the importance of these three variables in affecting Generation Z's investment decisions.
2. The coefficient ***b*** for Investment Literacy (X1) is 0,465, a positive value. This means that when other variables, X2 and X3, remain constant, a 1% increase in Investment Literacy (X1) causes an increase in Investment Decision (Y) by 46,5%.
3. The coefficient ***b*** for Risk Tolerance (X2) is 0,326, also positive. This means that when other variables, X1 and X3, remain constant, a 1% increase in Risk Tolerance (X2) leads to a 32,6% increase in Investment Decision (Y).
4. The coefficient ***b*** for Heuristics Bias (X3) is 0,051, with a positive value. This means that when other variables, X1 and X2, remain constant, a 1% increase in Heuristics Bias (X3) will increase Investment Decision (Y) by 5,1%.

Test of Coefficient of Determination

This test is used to show the percentage of influence contributed by the variables Investment Literacy (X1), Risk Tolerance (X2), Heuristics Bias (X3), and Investment Decision (Y).

Table 6. Results of the Coefficient of Determination Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,655[a]	0,429	0,381	2,623

a. Predictors: (Constant), Investment Literacy, Risk Tolerance, and Heuristics Bias

Source: Data processed using SPSS for Windows 27.00 (2025)

A correlation coefficient (R) of 0.655 is displayed in Table 6. Additionally, the test findings show a R Square value of 0.429, which indicates that the variables Investment Literacy (X1), Risk Tolerance (X2), Heuristics Bias (X3), and Investment Decision (Y) have a 42.9% association. Other factors affect the remaining 57.1%.

Hypothesis Testing

To obtain more comprehensive results, this study used two different kinds of hypothesis tests. First, each independent variable's significant contributions to the dependent variable were assessed using a partial effect test (T-Test). The degree to which the independent variables collectively account for the variation in the dependent variable was assessed by the second test, a variance test (F-Test).

The T-Test specifically evaluates the individual impact of Investment Literacy (X1), Risk Tolerance (X2), and Heuristics Bias (X3) on Investment Decision (Y) based on significance levels at 5% (α = 0,05). A significant relationship is established if the T-Test significance value is less than 0,05, implying the observed effect is unlikely due to random chance.

Table 7. Results of the T-Test

Coefficients[a]

Model	Unstandardized B	Unstandardized Std. Error	Standardized Coefficients Beta	t	Sig.
1 (Constant)	-6,682	5,178		1,290	0,205
Investment Literacy	0,465	0,169	0,453	2,745	0,009
Risk Tolerance	0,326	0,140	0,338	2,335	0,025
Heuristics Bias	0,051	0,159	0,048	0,319	0,752

a. Dependent Variable: Investment Decisions

Source: Data processed using SPSS for Windows 27.00 (2025)

From the test results:

1. The result for Investment Literacy (X1) → Investment Decision (Y) shows a positive calculated t-value of 2,745. Hypothesis 1 is accepted, indicating that Investment Literacy (X1) is significant (0,009) at a 0,05 significance level (0,009 < 0,05). Thus, there is a positive and significant relationship between Investment Literacy (X1) and Investment Decision (Y).
2. The result for Risk Tolerance (X2) → Investment Decision (Y) shows a positive calculated t-value of 2,335. Hypothesis 2 is accepted, indicating that Risk Tolerance (X2) is significant (0,025) at a 0,05 significance level (0,025 < 0,05). Thus, there is a positive and significant relationship between Risk Tolerance (X2) and Investment Decision (Y).
3. Heuristics Bias (X3) → Investment Decision (Y) yields a positive computed t-value of 0.319. Heuristics Bias (X3) is not significant (0,752) at a 0,05 significance level (0,752 > 0,05), according to the rejection of Hypothesis 3. Heuristics Bias (X3) and Investment Decision (Y) do not, therefore, have a positive and substantial association.

The F-Test aims to simultaneously explore how all variables, namely Investment Literacy (X1), Risk Tolerance (X2), and Heuristics Bias (X3), affect the variable Investment Decision (Y). The significance level is set at 5% (α = 0,05). The criterion for this test states that the three independent variables simultaneously influence the dependent variable if the F significance value is less than 0,05.

Table 8. Results of the F-Test

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	185,909	3	61,970	9,010	,000b
	Residual	247,591	36	6,878		
	Total	433,500	39			

a. Dependent Variable: Investment Decisions

a. Predictors: (Constant), Investment Literacy, Risk Tolerance, and Heuristics Bias

Source: Data processed using SPSS for Windows 27.00 (2025)

From the test results:

1. (Investment Literacy (X1), Risk Tolerance (X2), Heuristics Bias (X3)) → Investment Decision (Y), the SPSS analysis shows a positive calculated F-value of 9,010. The significance value for Investment Literacy (X1), Risk Tolerance (X2), Heuristics Bias (X3), and Investment Decision (Y) is 0,000 < 0,05. This means hypothesis 4 (H4) is accepted, indicating that Investment Literacy (X1), Risk Tolerance (X2), and Heuristics Bias (X3) simultaneously have a significant effect on Investment Decision (Y).

DISCUSSION

1. Investment Literacy and Investment Decision

The partial test results show that Investment Literacy (X1) has a positive and significant influence on Investment Decision (Y), with a computed t-value of 2,745 and a p-value of 0,009 (< 0,05). This result lends credence to the idea that students from Generation Z, a youthful and vibrant group, typically make more accurate and well-informed investing selections when they are knowledgeable about investments. Investment literacy enables students to effectively evaluate investment risks and opportunities, maximizing potential returns despite their limited resources.

From a financial behavior perspective, the ability to understand investment concepts reflects financial awareness and maturity in managing personal finances among Generation Z students. As a generation accustomed to digital information access, improving investment literacy is crucial to prevent impulsive investment decisions with high risks. Therefore, enhancing investment literacy becomes a vital strategy to encourage Generation Z students to make wiser, more planned, and sustainable investment decisions when facing future financial challenges.

2. Risk Tolerance and Investment Decision

With a computed t-value of 2,335 and a p-value of 0,025 (< 0,05), the partial test findings demonstrate that Risk Tolerance (X2) has a favorable and substantial impact on Investment Decision (Y). According to this research, students in Generation Z who have higher risk tolerance levels typically make more daring and deliberate investing choices.The ability to accept and manage risk is an important factor to ensure investments align with their financial profiles and future goals.

From a financial behavior perspective, risk tolerance among Generation Z students reflects emotional readiness and understanding of potential fluctuations in investment values. Given Generation Z's habit of rapid change and digital technology, effective risk management is key to achieving optimal investment outcomes. Therefore, developing an understanding of risk tolerance is essential in investment education for Generation Z students so they can make well-considered investment decisions without being overly burdened by fear of risk.

3. Heuristics Bias and Investment Decision

With a computed t-value of 0.319 and a p-value of 0.752 (> 0.05), the partial test findings indicate that Heuristics Bias (X3) has a positive but negligible impact on Investment Decision (Y). This result implies that Generation Z students' investing decisions are not much influenced by heuristic bias. Put differently, this characteristic has no discernible impact on their investing choices, either favorably or unfavorably.

From a financial behavior perspective, these results indicate that although heuristics bias is often assumed to affect investment behavior, its impact is relatively minimal among Generation Z students. This suggests they may prioritize rational considerations and available information when making investment decisions. Therefore, efforts to improve investment decision quality in Generation Z should focus more on strengthening investment literacy and risk

management, which have a clearer influence, rather than controlling heuristics bias

4. Three Variables' Concurrent Impact on Investment Decisions

With an F-value of 9,010 and a p-value of 0,000 (< 0,05), the F-test results show that Investment Literacy (X1), Risk Tolerance (X2), and Heuristics Bias (X3) all concurrently have a positive and substantial impact on Investment Decision (Y). This result demonstrates that these three factors collectively have a substantial impact on Generation Z students' investing choices.

Collectively, the combination of investment literacy, risk tolerance, and heuristics bias forms an important foundation in explaining investment decision-making behavior among Generation Z, known to be adaptive and digitally savvy. Although heuristics bias is not significant in partial testing, its presence in the combined model with other variables contributes to variations in investment decisions. Therefore, developing these three aspects in an integrated manner can enhance the quality and accuracy of investment decisions made by Generation Z students.

CONCLUSIONS AND RECOMMENDATIONS

1. Investment Literacy has a positive and significant effect on the investment decisions of Generation Z, indicating that good knowledge enables them to make more accurate and well-considered investment choices.
2. Risk Tolerance also has a positive and significant effect, meaning that an open attitude toward risk makes Generation Z more willing to take investment decisions aligned with their risk profiles.
3. Heuristics Bias does not show a significant partial effect, implying that cognitive biases do not directly influence investment decisions when considered individually.
4. However, simultaneously, Investment Literacy, Risk Tolerance, and Heuristics Bias together have a significant impact on investment decisions, highlighting the importance of this combination of factors in shaping adaptive and rational investment behavior among Generation Z students.

It is recommended that universities and related institutions develop financial education programs, particularly those focused on enhancing Investment Literacy and understanding of Risk Tolerance for Generation Z students. These programs could take the form of training sessions, seminars, or workshops that integrate both technical and psychological aspects of investing, enabling students to make wiser and more planned investment decisions. Additionally, efforts should be made to raise students' awareness of potential cognitive biases, even though the influence of Heuristics Bias is not dominant, to encourage more rational decision-making and reduce the risk of investment errors.

ADVANCED RESEARCH

This study has several limitations that should be considered as references for future research. First, the number of respondents in this study was only 40, all of whom were students from the Accounting Study Program. This limits the extent to which the results can represent the overall condition of Generation Z in Indonesia, who have more diverse educational backgrounds and investment experiences. Therefore, future research is recommended to use a larger sample size and include respondents from various disciplines, professions, and regions to obtain more representative results.

Second, a Likert scale questionnaire that depends on respondents' subjective opinions was employed in this study. Because the Heuristics Bias variable is psychological and challenging to evaluate objectively, using perception data may introduce bias. To gain a deeper understanding of how cognitive biases impact investing decisions, future study should take into account mixed approaches, such as behavioral tests or in-depth interviews.

Third, this study analyzed only three main variables, namely Investment Literacy, Risk Tolerance, and Heuristics Bias. In reality, investment decisions may also be influenced by other variables such as self-efficacy, social factors, media influence, investment motivation, and macroeconomic conditions. Therefore, future studies are expected to include these additional variables to obtain a more comprehensive understanding of Generation Z's investment behavior.

Future research is expected to offer a more comprehensive and in-depth understanding of the factors impacting young generations' investment decisions in Indonesia by broadening the scope of respondents, research techniques, and variables addressed.

ACKNOWLEDGMENTS

The author would like to thank everyone who helped in the preparation of this study. Thanks are extended to the supervising lecturers and academic colleagues who have offered guidance, input, and valuable suggestions, enabling this study to be completed successfully.

Appreciation is also given to all respondents who took the time to participate in filling out the research questionnaire. Without their contribution, this study would not have obtained the necessary data for analysis.

Furthermore, the author acknowledges the institution Universitas 17 Agustus 1945 Surabaya for providing facilities, discussion spaces, and academic support throughout the research process. All forms of assistance, whether direct or indirect, have been meaningful to the completion of this research.

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