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Impact of Financial Literacy, Investment Training, and Risk Attitudes on Investment Decisions: The Moderating Role of Self-Efficacy in Public University Students in Surabaya

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ABSTRACT

Purpose: *This study aims to examine how financial literacy, investment training, and risk attitudes influence investment decisions among students of public universities in Surabaya, with self-efficacy as a moderating variable.* ***Methodology:*** *A quantitative approach was employed, with data collected from 100 students using a structured questionnaire. The data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS).* ***Results:*** *Financial literacy, investment training, and risk attitudes have a significant influence on investment decisions. Self-efficacy strengthens the influence of financial literacy and investment training on investment decisions but does not moderate the relationship between risk attitudes and investment decisions.* ***Findings:*** *The study highlights the role of self-efficacy as an important psychological factor that enhances financial decision-making among students.* ***Novelty:*** *This research introduces self-efficacy as a moderating variable, a relatively rare approach in studies exploring the relationship between financial literacy and investment decisions, especially among Indonesian students.* ***Originality:*** *The study presents a unique model that integrates cognitive, experiential, and psychological variables, emphasizing the significance of self-efficacy in financial behavior.* ***Conclusion:*** *The findings suggest that financial education programs should focus on enhancing self-efficacy to improve investment decision-making.* ***Type of Paper:*** *Empirical Research*

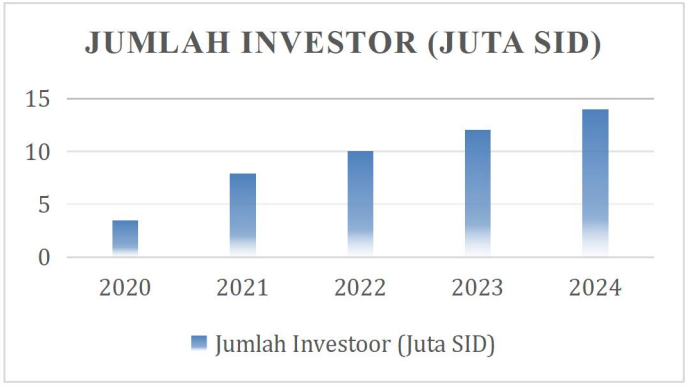
INTRODUCTION

The ability to manage finances is essential for the younger generation, especially university students, in facing technological advancements and global economic integration. Students' attitudes toward risk, levels of financial literacy, and investment education all play a role in their investment choices. Investment refers to the allocation of funds with the aim of generating future returns (Fitriyani & Anwar, 2022). The purpose of investment is to increase asset value, generate additional

income, or achieve financial stability (Nurbarani & Soepriyanto, 2022). Limited financial knowledge has the potential to disrupt the process of making rational investment decisions, making it essential to enhance financial literacy and gain experience through investment training (Fitriyani & Anwar, 2022).

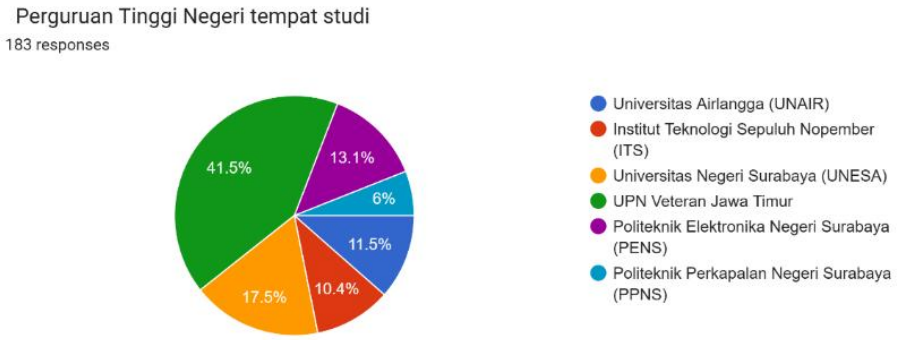
In 2024, two undergraduate students from the Digital Business program at Universitas Negeri Surabaya (UNESA) fell victim to a fraud scheme involving a voice impersonation of a lecturer, with one student suffering a loss of Rp1,000,000.00. Although there have been no specific reports of investment fraud at UNESA, students remain highly vulnerable to fraudulent investment schemes due to enticing offers promising high returns. Additionally, cases of students becoming entangled in online loan (pinjol) debts are increasingly common. One alarming incident involved a student resorting to robbing an online taxi driver to repay a pinjol debt of Rp40 million. The lack of financial literacy exacerbates this situation, as students often turn to pinjol to meet urgent needs, including engaging in high-risk investments (Kompas, 2024; Universitas Negeri Surabaya, 2024).

Figure 1 Growth of Total Capital Market Investors in Indonesia (2020–2024)



The entire count of investors engaged in Indonesia's capital market, included those in Surabaya, has seen a substantial rise. As of October 2024, the number of investors in Indonesia reached 14,001,651 Single Investor Identifications (SIDs), representing an increase of 1.83 million SIDs compared to the previous year. This growth reflects the impact of financial education programs and advances in financial technology (Indonesia Stock Exchange, 2024). In Surabaya, the number of investors has reached 307,000, with a year-to-date growth of 9.98%, making the city a key contributor to Indonesia’s capital market. Surabaya is also known as the “Sharia Investor City,” with 13% of the national sharia investor base coming from East Java, reflecting strong public interest, including from students, in investing and the success of financial literacy initiatives (Bursa Efek Indonesia, 2023).

Figure 2 Percentage of Preliminary Survey Results at Public Universities in Surabaya



A pre-research survey focusing on students from public universities in Surabaya revealed that 161 students have already engaged in investment activities, using instruments such as gold, stocks, and cryptocurrencies, while 22 students have not yet invested. Numerous students get investment-related information via social media, peers, relatives, and campus Investment Galleries. Notwithstanding considerable curiosity, their comprehension of financial dangers and techniques is still constrained. Numerous colleges in Surabaya, via organizations like Generasi Baru Indonesia (GenBI), are actively engaged in finance and investing education. KSEI statistics indicates that almost 12 million persons engage in Indonesia's capital market, with 79% of them being under 40 years old, reflecting significant knowledge among students regarding the necessity of investment for future financial planning (Kustodian Sentral Efek Indonesia, 2020).

Previous research has demonstrated that financial literacy, risk attitudes, and psychological factors such as self-efficacy and cognitive biases play important roles in investment decisions. Mushafiq et al. (2023) discovered that cognitive abilities affect risk avoidance and investment intention, while Sulistyawati et al. (2023) established that financial self-efficacy enhances the impact of financial literacy on investment intention. Research conducted by Adiputra (2021) and Tristiyono et al. (2023) emphasizes the influence of overconfidence, representational bias, and risk tolerance on investing choices. Additional studies highlight the significance of emotional intelligence, fraud awareness, and behavioural regulation in investing decision-making (Aren & Nayman Hamamci, 2023; Veerasingam & Teoh, 2023; Wangzhou et al., 2021). These studies provide the foundation for examining the interconnections between financial literacy, investing education, self-efficacy, and risk preferences in investment choices.

Surabaya was selected as the study site because to its strategic significance as the capital of East Java Province, hosting numerous public universities focused on enhancing financial literacy and investment knowledge, such as Airlangga University (UNAIR), Sepuluh Nopember Institute of Technology (ITS), and State University of Surabaya (UNESA) (Azzahra & Saputra, 2024; Sahal, 2022). These public universities in Surabaya not only play a significant role in delivering education but are also actively involved in research and innovation activities in the financial and investment sectors, supported by programs like Merdeka Belajar Kampus Merdeka (MBKM) and various financial technology development initiatives (Humas UPN, 2024; Unair News, 2024). This research examines the influence of students' financial literacy, investment education, and risk preferences on their investing intentions via the lens of the Theory of Planned Behaviour (TPB).

The first study inquiry examines the extent to which an individual's financial literacy affects their investment decisions. Does investing training influence investment decisions? How does an individual's sense of risk influence their financial decision-making? How does an individual's self-efficacy affect the correlation between financial literacy and investing decisions? How does self-

efficacy mitigate the impact of investing training on investment decisions? Does self-efficacy moderate the link between risk attitudes and investing decisions? This research aims to ascertain the extent to which self-efficacy influences the links between financial literacy, investing training, risk attitudes, and investment decisions. The findings are expected to support the advancement of financial education by moving beyond a purely cognitive focus to also accommodate psychological factors that shape wise financial behavior.

The ability to understand and manage financial matters, including investments, debt, and financial planning, is known as financial literacy. Well-educated individuals tend to make wise investment decisions by considering their own risk tolerance. Both subjective and objective dimensions of financial literacy greatly influence people' investing decisions by enhancing their comprehension of risk and bolstering their confidence in managing it. The Theory of Planned Behaviour (TPB) posits that financial literacy influences investment choices via three mechanisms: optimism, social norms, and perceived behavioural control. Research indicates that university students in Surabaya with a robust comprehension of personal finance are more inclined to invest, hence reinforcing the idea that financial literacy influences their investing decisions.

H_1: Financial literacy significantly influences investment choices among students at public institutions in Surabaya.

Investment training is a program aimed at enhancing individuals' understanding of investment concepts, strategies, and practices (Thomas et al., 2022) . This training is essential in influencing the investing choices of public university students in Surabaya, since it provides them with expertise in capital markets, risk management, and investment techniques (Yani & Cerya, 2024). Based on the TPB (Ajzen, 1991) , such training influences investment decisions through attitude changes, the strengthening of social norms, and the enhancement of perceived behavioral control. Students gain confidence and enthusiasm for investing when they understand the risks and benefits involved in the process (Ristanto, 2020). Investment training improves students' financial literacy and preparedness for making investment decisions, supporting the hypothesis (H_2) that such instruction influences their investment choices (Yani & Cerya, 2024).

H_2: Investment training substantially influences the investment choices of students at public universities in Surabaya.

Risk attitudes denote people' inclinations in reacting to risk, particularly in conditions of uncertainty in investment decision-making (Badriatin et al., 2022) . Within the framework of the Theory of Planned Behaviour (Ajzen, 1991), risk attitudes constitute a facet of "attitude" that affects both intention and investment behaviour. Students' investing decisions are significantly affected by their risk perceptions and tolerance, as shown in several research (Badriatin et al., 2020; Juliano et al., 2024) . Those comfortable with taking calculated risks often invest in volatile assets, while risk-averse individuals tend to choose more stable ones (Azizah et al., 2024; Veerasingam & Teoh, 2023). Public university students in Surabaya exhibit varying degrees of risk tolerance based on their investment knowledge and experience. This supports the hypothesis (H_3) that risk attitudes influence investment decisions, given that attitudes toward risk are key in shaping investment preferences.

H_3: Risk perceptions significantly influence investment choices among students at public institutions in Surabaya.

Financial literacy significantly enhances the quality of investing choices, particularly when people exhibit high self-efficacy. Self-efficacy, defined as robust confidence in one's capabilities, empowers people to successfully use financial knowledge in practice by making prudent investment decisions. Individuals with strong self-efficacy are more inclined to undertake measured risks, maintain composure under uncertainty, and execute strategies aligned with their expertise. Situated within the Theory of Planned Behaviour (Ajzen, 1991) , self-efficacy corresponds with perceived behavioural control, enhancing investment intentions and actions. Research by Anah et al. (2023) and Rahayu et al. (2023) demonstrates that the interplay between financial literacy and self-efficacy

substantially impacts students' investing choices, as confidence mitigates psychological obstacles and facilitates the more proficient use of

H_4: Self-efficacy moderates the effect of financial literacy on investment decisions.

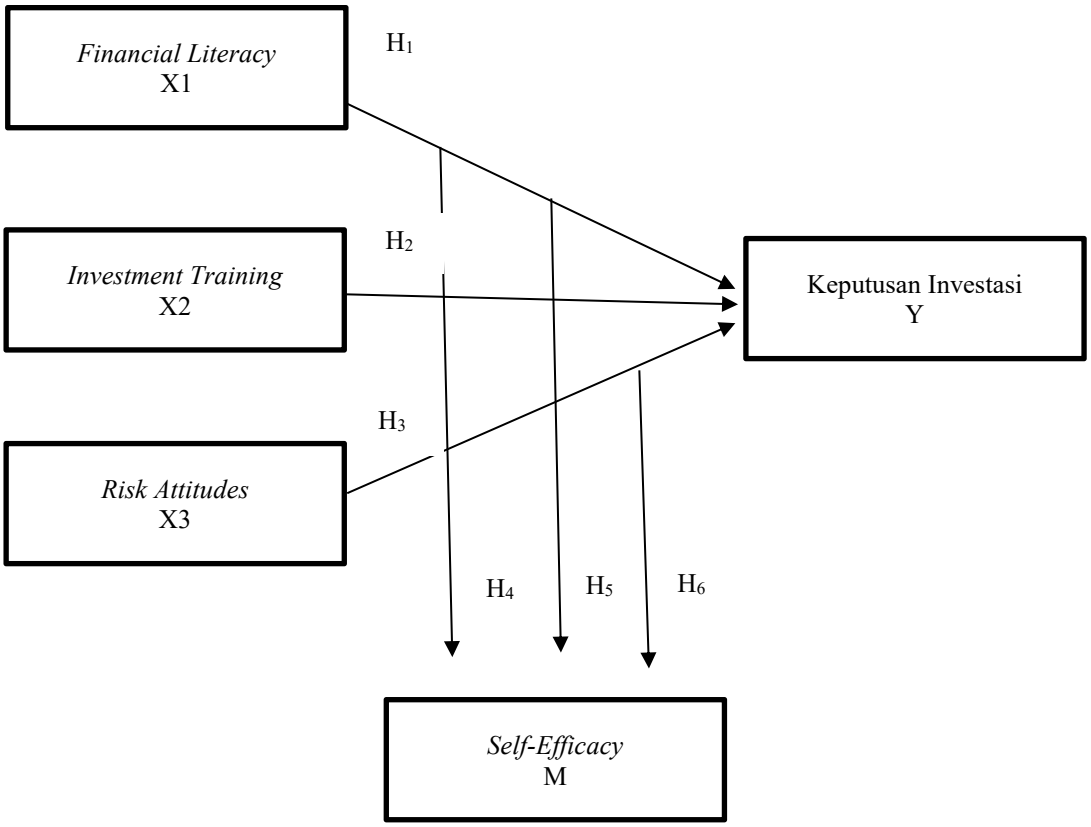
Self-efficacy also plays a critical role in strengthening the impact of investment training on investment decisions, as individuals' confidence is a decisive factor in applying the knowledge gained from training. The theory of self-efficacy by Bandura & Wessels (1977) emphasizes that individuals who believe in their abilities are more capable of facing challenges and acting effectively, including in investment decision-making. While training provides understanding and skills, without adequate self-efficacy, individuals may still hesitate to act. In the Theory of Planned Behaviour (Ajzen, 1991), self-efficacy strengthens perceived behavioural control, hence bolstering the intention to invest. Research conducted by Siddiqi et al. (2023), Anah et al. (2023), and Putri (2024) demonstrates that those with elevated self-efficacy are more adept at executing the results of investment training. Research by Sulistyawati et al. (2023) and Rahayu et al. (2023) corroborates that financial confidence enhances the relationship between investing knowledge and favourable financial behaviour. Thus, within the context of public university students in Surabaya, hypothesis H_5 is both relevant and acceptable.

H_5: Self-efficacy moderates the effect of investment training on investment decisions.

Self-efficacy is a crucial determinant that influences the relationship between risk attitudes and investing choices. When facing uncertainty, individuals with high self-confidence tend to make financial decisions because they believe in their ability to manage risk effectively. Viewed through the TPB framework (Ajzen, 1991), self-efficacy contributes to perceived behavioral control, which influences investment intention and behavior. Studies by Kaja et al. (2022), Florencia & Arifin (2022), indicate that self-confidence can strengthen the relationship between risk attitudes and investment behavior, positively affecting investment interest and choices. A high level of self-efficacy increases the likelihood that investors will make bold and well-informed decisions, regardless of their risk attitudes. Students who are willing to take risks but lack the confidence to invest strategically would benefit significantly from hypothesis H_6, which posits that self-efficacy strengthens the effect of risk attitudes on investment decisions.

H_6: Self-efficacy moderates the effect of risk attitudes on investment decisions.

Figure 3 Framework of Thinking



METHOD

This study employs a quantitative approach with a correlational design. A total of 100 students from seven public universities in Surabaya participated in the study, selected using random sampling. Data were collected through a structured questionnaire measuring financial literacy, investment training, risk attitudes, and self-efficacy. SEM-PLS was used for data analysis, allowing for testing both the measurement and structural models. The model's validity and reliability were assessed using various criteria, including the Average Variance Extracted (AVE) and Cronbach's alpha.

Operational Definition and Variable Measurement

Financial Literacy (X_1)

Financial literacy denotes the capacity to comprehend and execute sound investment choices informed by one's financial acumen. (Mutawally & Haryono, 2019) . While a high level of financial literacy is important, research also shows that other factors such as risk perception and financial behavior affect investment decisions. The indicators used to measure financial literacy are adapted from Tristiyono et al. (2023), which include:

a. Understanding basic financial concepts (inflation, interest rates, diversification),
b. Knowledge of investment instruments (stocks, bonds, mutual funds, and associated risks),
c. Ability to manage personal financial budgets,

d. Ability to assess investment risks,
e. Awareness of long-term financial planning.

Investment Training (X_2)

Investment training is an educational program aimed at improving individuals' understanding and skills related to investment concepts and strategies (Badriatin et al., 2020). The program generally includes materials on types of investments, market analysis techniques, and risk management. The indicators used in this study are adapted from Usman et al. (2024), as follows:

a. Frequency of training,
b. Availability of information,
c. Quality of training materials,
d. Training efficiency,
e. Increased interest and ability in investment.

Risk Attitudes (X_3)

An individual's degree of caution or boldness when facing financial uncertainty is reflected in their risk attitude, It plays a crucial part in investment decision-making (Mushafiq et al., 2023). Individuals with high risk aversion tend to choose stable and safe investments. The indicators for measuring risk attitudes include:

a. Avoidance of high-risk investments,
b. Discomfort with uncertain outcomes,
c. Evaluation of risks before investing,
d. Preference for low-risk instruments,
e. Unwillingness to incur large losses.

Investment Decision (Y)

The dependent variable is affected by various independent factors. The dependent variable in this research is the investment choice (Y). It refers to the decisions individuals make in selecting and executing investments based on risk considerations and financial goals (Anggraini et al., 2024). The indicators used are adopted from Adiputra (2021), namely:

a. Investment security,
b. Risk coverage,
c. Future financial planning,
d. Alignment of investment choices with risk profiles,
e. Achievement of return targets.

Self-Efficacy (M)

When a variable influences the direction or intensity of the relationship between other variables, it is considered a moderating variable. Self-efficacy (M), defined as an individual's conviction in their capacity to execute activities or attain objectives—such as making prudent financial choices—functions as a moderating variable in this research. (Anggraini et al., 2024;

Bandura & Wessels, 1977). The indicators of this variable are adapted from Sulistyawati et al. (2023), which are relevant to the investment context, including:

a. Confidence in understanding investment information,
b. Ability to identify investment opportunities,
c. Capability to make independent investment decisions,
d. Resilience in facing investment risks and pressure,
e. Ability to achieve personal financial goals through investment.

This research used an ordinal evaluation method using a five-point Likert scale from "strongly disagree" (1) to "strongly agree" (5). (Megasari et al., n.d.; Widodo & Yusiana, 2021) . Financial literacy is measured by respondents' understanding of basic investment concepts, investment training is assessed by how much the training supports investment decision-making, risk attitudes are measured by comfort in facing risks, self-efficacy is assessed by personal belief in making investment decisions, and investment decisions are evaluated based on preferences and investment actions (Joshi et al., 2015) . More than 126,239 students from public universities in Surabaya—including UNAIR, ITS, UNESA, UPN, PENS, PPNS, and UINSA—participated in the survey (Kementerian Pendidikan, 2025). Due to the large population size, random sampling was employed to ensure representativeness. The sample size was calculated using the Slovin method with a 10% margin of error, yielding a total of 100 respondents. (Sholihin & Ratmono, 2020) . The survey was conducted via Google Forms distributed to students across state institutions in Surabaya (Megasari et al., n.d.). Data analysis was conducted using SEM-PLS (Structural Equation Modeling - Partial Least Squares), enabling the simultaneous analysis of complex interactions between indicators and latent variables. PLS-SEM was selected for its user-friendly interface and variance-based methodology, making it suitable for complex models and large datasets (Sholihin & Ratmono, 2020) . This study tested several models, including the measurement (outer) model, the structural (inner) model, and hypothesis testing.

RESULTS AND DISCUSSION

Between April 16 and April 30, 2025, a total of 126,239 active students from seven public institutions in Surabaya completed the online survey. From this total, 100 responders were chosen at random. The participants included 61% females and 39% men, mostly from UNAIR (27%), ITS (20%), and UNESA (17%). The majority received a monthly allowance of less Rp1,000,000.00 and had investing expertise, mostly having invested once (41%) or between 2 to 10 times (42%). This suggests that, despite restricted money, students' interest in and experience with investing have started to evolve.

Outer Model Analysis

Convergent Validity Test

According to Garson (2016), convergent validity is confirmed using outer loadings and Average Variance Extracted (AVE), with the following thresholds: results between 0.5 and 0.7 are still considered to pass the convergent validity test for outer loadings, although a value of 0.7 is recommended for exploratory studies. Furthermore, Hair et al. (2011) state that if the AVE value is equal to or greater than 0.5, then convergent validity is achieved. The results of the convergent validity test are presented as follows:

Outer Loadings

Table 1. Outer Loadings Results for Financial Literacy, Investment Training, Risk Attitudes, Investment Decisions, and Self Efficacy

	Financial Literacy	Investment Training	Investment Decisions	Risk Attitudes	Self Efficacy	Self Efficacy x Risk Attitudes	Self Efficacy x Investment Training	Self Efficacy x Financial Literacy
M1.1					0.886			
M1.2					0.909			
M1.3					0.893			
M1.4					0.891			
M1.5					0.920			
M2.1					0.886			
M2.2					0.841			
M2.3					0.708			
M2.4					0.860			
M2.5					0.836			
M3.1					0.878			
M3.2					0.898			
M3.3					0.692			
M3.4					0.874			
M3.5					0.805			
X1.1	0.847							
X1.2	0.787							
X1.3	0.810							
X1.4	0.767							
X1.5	0.829							
X2.1		0.795						
X2.2		0.888						
X2.3		0.838						
X2.4		0.878						
X2.5		0.797						
X3.1				0.744				
X3.2				0.686				
X3.3				0.769				
X3.4				0.815				
X3.5				0.759				
Y1.1			0.788					
Y1.2			0.746					
Y1.3			0.517					
Y1.4			0.802					
Y1.5			0.784					
Self Efficacy x Financial Literacy								1.000
Self						1.000		

Efficacy x Risk Attitudes	
Self Efficacy x Investment Training	1.000

Source: Processed by Researchers

All indicators for each variable have met the minimum requirements for indicator validity, as shown in Table 1, with outer loading values above 0.5. This indicates that each item within the construct contributes significantly to explaining the latent variable it represents. No item needed to be eliminated, as all passed the indicator reliability test through their outer loadings. This condition strengthens the reliability of the measurement model used in the study. Furthermore, these data strongly support the subsequent steps in structural model testing.

Average Variance Extracted (Validity Test)

Table 2 Results of Average Variance Extracted

Variable	AVE	Nilai Kritis	Keterangan
Financial Literacy	0.654	> 0,5	Valid
Investment Training	0.706	> 0,5	Valid
Investment Decisions	0.541	> 0,5	Valid
Risk Attitudes	0.571	> 0,5	Valid
Self Efficacy	0.730	> 0,5	Valid

Source: Processed by Researchers

Table 2 indicates that all three variables in this research are legitimate, since their Average Variance Extracted (AVE) values surpass 0.5. When the AVE value exceeds this level, it signifies that each construct accounts for more than fifty percent of the variation in its indicators. The used indications have reliably and precisely shown the structures. These findings substantiate the legitimacy of the measuring methodology in the research. In the structural testing phase, all three variables can therefore be considered valid and appropriate for further analysis.

Reliability Test

Table 3 Cronbach's Alpha Results

	Cronbach's Alpha	Critical Value	Result
Financial Literacy	0.870	>0.7	Reliabel
Investment Training	0.895	>0.7	Reliabel
Investment Decisions	0.778	>0.7	Reliabel
Risk Attitudes	0.820	>0.7	Reliabel
Self Efficacy	0.974	>0.7	Reliabel

Source: Processed by Researchers

All of the study's variables were found to exhibit dependability, as shown in Table 3, with Cronbach's alpha values more than 0.7. Further analysis may be confidently undertaken as the data have passed the reliability test.

Composite Reliability

Tabel 4 Composite Reliability Value

Variable	Composit Reliability	Critical Value	Result
Financial Literacy	0.904	>0.70	*Reliable*
Investment Training	0.923	>0.70	*Reliable*
Investment Decisions	0.852	>0.70	*Reliable*
Risk Attitudes	0.869	>0.70	*Reliable*
Self Efficacy	0.976	>0.70	*Reliable*

Source: Processed by Researchers

All variables in the data set have Composite Reliability values more than 0.7, indicating that the data is trustworthy and ready for further analysis (see table above).

Inner Model Analysis

Goodness of Fit (GoF)

To determine if a study model is adequate and appropriate, the Goodness of Fit (GoF) is used. Model fit is deemed poor with a GoF value of 0.10, moderate at 0.25, and high at 0.36 or above, according to the three threshold criterion for GoF values. For a broad understanding of how to assess PLS-SEM (Partial Least Squares Structural Equation Modelling) model quality, these benchmarks are useful. The geometric mean of the average AVE and the average R^2 values is used to determine the GoF value in this research, as seen below:

Table 5 Average AVE and Average R^2 Values

Variable	Nilai Average Variance Extracted (AVE)	R^2
Financial Literacy	0.654	
Investment Training	0.706	
Investment Decisions	0.541	0.696
Risk Attitudes	0.571	
Self Efficacy	0.730	
Average	0.640	**0,696**

Source: Processed by Researchers

$$\boldsymbol{GOF = \sqrt{AVE\ x\ R^2} = \sqrt{0.640\ x\ 0.696} = 0.6674}$$

The research model produced a GoF value of 0.6674, as shown in the results above. This means that the under evaluation prediction model has an excellent degree of fit between the inner and

outer models, since the GoF value is much higher than the cutoff of 0.36. Such a finding verifies the model's high level of structural validity and great explanatory power, indicating it is well-suited for further analysis and interpretation in this research.

Coefficient of Determination Value

The R^2 value, which is the outcome of the structural model (inner model) test, is used to initiate the data analysis. One of the three potential measures for the coefficient of determination is the R-squared value, which may take on values between zero and one. Significant or strong results are those between 0.75 and 1, moderate results are those between 0.50 and 0.74, and poor results are those between 0.25 and 0.49. The study's coefficients of determination (R^2) are as follows:

Table 6 R-Square Value Results

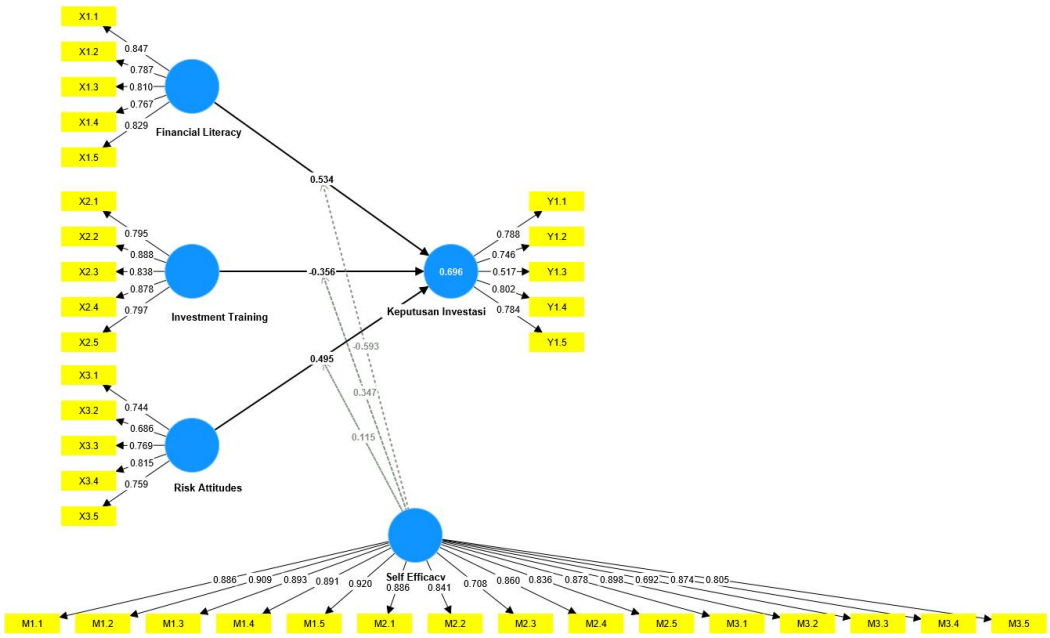
Variable	R Square
Investment Decisions	0.696

Source: Processed by Researchers

The conclusions are shown below according to the R-squared values obtained from the constructs in this study:

1. Financial literacy, investment training, and risk attitudes collectively contribute 0.696, or 69.6%, to the investment decision variable. The remaining 30.4% (100 - 69.6) is attributed to other factors outside the scope of this study.

Figure 4. Pls Algorithm



Predictive Relevance Value

The value can range from zero to one to obtain the predictive relevance score (Q^2). With a Q^2 value larger than 0, the research model is highly predictively relevant, and with a value less than or

equal to 0, it is not as predictively relevant. A study's predictive model is considered more accurate when the predictive relevance value approaches 1.

Table 7 Predictive Relevance Results (Q^2)

Dependent Variable	Q Square
Investment Decisions	0.344

Source: Processed by Researchers

According to the predictive relevance value (Q-square) of the study's construct, the Investment Decision variable has a value of 0.344. The distributional fairness toward Y is predictively relevant, as this value is greater than 0.

Hypothesis Testing Results with Significance Test

The following are the requirements for this significance test:

a. H_0 is accepted and Ha is rejected when the probability value is larger than 0.05. This indicates that the independent and dependent variables do not impact each other.
b. H_0 is rejected and Ha is accepted when the probability value is less than 0.05, which suggests that the independent and dependent variables do impact each other.

Table 8 Bootstrapping Calculation Results

Kode	Hipotesis	*Original Sample*	P *values*	Kesimpulan
H_1	*Financial Literacy* -> Investment Decisions	0.534	0.002 <0,05	There is a significant influence between variables
H_2	*Investment Training* -> Investment Decisions	-0.356	0.024 <0,05	There is a significant influence between variables
H_3	*Risk Attitudes* -> Investment Decisions	0.495	0.000 <0,05	There is a significant influence between variables
H_4	*Self Efficacy x Risk Attitudes* -> Investment Decisions	0.115	0.379 >0,05	There is no influence between the variables
H_5	*Self Efficacy x Investment Training* -> Investment Decisions	0.347	0.047 <0,05	There is a significant influence between variables
H_6	*Self Efficacy x Financial Literacy* -> Investment Decisions	-0.593	0.002 <0,05	There is a significant influence between variables

Source: Processed by Researchers

The analysis revealed that:

a. Financial literacy significantly influences investment decisions ($\beta = 0.534$, $p < 0.05$).

b. Investment training has a significant impact on investment decisions ($\beta = -0.356$, $p < 0.05$).
c. Risk attitudes also significantly affect investment choices ($\beta = 0.495$, $p < 0.05$).
d. Self-efficacy moderates the relationship between financial literacy and investment decisions ($\beta = -0.593$, $p < 0.05$), as well as the relationship between investment training and investment decisions ($\beta = 0.347$, $p < 0.05$). However, it does not moderate the relationship between risk attitudes and investment choices.

These findings highlight the significant role of both cognitive and psychological factors in shaping investment decisions.

DISCUSSION

The Influence of Financial Literacy on Investment Decisions

Table 8 displays the findings of the hypothesis test, which demonstrate that investing choices are substantially impacted by financial literacy. People who are financially literate are more likely to weigh risks carefully and choose instruments that fit their profiles. According to Ajzen's (1991) Theory of Planned Behaviour, which states that attitude, subjective norms, and perceived behavioural control impact investing behaviour, this data supports the idea that financial literacy increases this felt control. Confidence and the capacity to make reasonable investment choices are fostered by financial literacy. Previous research by Mushafiq et al. (2023), Sulistyawati et al. (2023), Pertiwi et al. (2024), and Aren & Nayman Hamamci (2023) lend credence to these findings, showing that financial literacy is vital for deepening understanding of risk, moulding intentions, and promoting preferences for lending instruments.

The Influence of Investment Training on Investment Decisions

Table 8 also indicates that investment training positively and significantly affects investment decisions. Training enhances knowledge, confidence, and the ability to evaluate risks and make strategic decisions. Within the TPB framework (Ajzen, 1991) , such training strengthens perceived behavioral control and attitudes toward investment, fostering both intention and actual investment behavior. Sulistyawati et al. (2023), Tristiyono et al. (2023), and Mushafiq et al. (2023), all back these results up by highlighting how training may boost confidence, lessen prejudice, and strengthen logical investment decisions.

The Influence of Risk Attitudes on Investment Decisions

The hypothesis test in Table 8 shows that investing choices are positively and significantly impacted by risk attitudes. People that aren't afraid to take chances are the ones who are most likely to invest. According to Ajzen's (1991) Theory of Planned Behaviour, those who are at ease with risk regard themselves as having greater control over their behaviour, and their "attitude toward the behaviour" also influences how they cope with uncertainty. This is in line with findings by Adiputra (2021) , Veerasingam & Teoh (2023) , and Aren & Nayman Hamamci (2023) , who found that risk tolerance and positive attitudes toward risk significantly correlate with preferences for high-risk or non-traditional investment instruments, supporting rational and goal-oriented investment behavior.

The Role of Self-Efficacy in Moderating the Effect of Financial Literacy on Investment Decisions

Table 8 displays the results of the hypothesis test, which indicate that self-efficacy has a negative moderating impact on investment choices rather than an additive one, and so, we accept H4 with a negative bias. Although TPB includes self-efficacy within perceived behavioral control (Ajzen, 1991) , this result implies that high self-confidence does not necessarily lead to better application of financial knowledge. This may be attributed to overconfidence bias, where individuals overestimate their own abilities and decisions (Kasoga, 2021). This finding contradicts Sulistyawati et al. (2023) and Tristiyono et al. (2023), are in agreement regarding the importance of financial literacy on investment intention and cognitive ability on investment decisions, respectively. However, Sulistyawati et al. also found that financial self-efficacy enhances the influence of financial literacy on investment intention.

The Role of Self-Efficacy in Moderating the Effect of Investment Training on Investment Decisions

Table 8 shows that H_5 is accepted, indicating that self-efficacy plays a key role in how investment training influences investment decisions. This suggests that individuals with sufficient investment knowledge and healthy confidence levels are more likely to translate their training into tangible outcomes. Within the TPB framework (Ajzen, 1991) , self-efficacy—part of perceived behavioral control—enhances individuals' ability to realize their intentions through actual behavior. These results align with findings from Sulistyawati et al. (2023) , Che Hassan et al. (2024) , and Tristiyono et al. (2023) , who assert that financial and fintech self-efficacy strengthen the effect of training or knowledge on investment decisions and intentions by enhancing self-regulation in managing risk and behavioral biases.

The Role of Self-Efficacy in Moderating the Effect of Risk Attitudes on Investment Decisions

According to Table 8, self-efficacy has a moderating role in how risk attitudes affect investing choices. Those who are comfortable with uncertainty are more inclined to put their money where their mouth is if they are confident in their capacity to handle financial risks. Theoretically, one's ability to exert control over one's own behaviour (self-efficacy) makes it easier to turn one's investment attitudes into concrete investment activities (Ajzen, 1991). Previous research by Adiputra (2021), Che Hassan et al. (2024), and Veerasingam & Teoh (2023) supports this conclusion. These studies demonstrate that self-efficacy strengthens the connection between risk tolerance, attitudes, and investment decisions, particularly in situations of high uncertainty. As a result, self-control and preparedness for rational investment are improved.

Statement

The results of this study align with the Theory of Planned Behavior (TPB), where financial literacy enhances individuals' perceived behavioral control, leading to better investment decisions. Investment training positively influences decision-making by improving students' financial knowledge and confidence. However, self-efficacy's moderating role was more pronounced in the relationships between financial literacy, investment training, and investment decisions, rather than risk attitudes. This finding suggests that self-efficacy influences not only the cognitive factors (literacy and training) but also shapes students' confidence in applying their knowledge. The results

confirm previous research by Mushafiq et al. (2023) and Sulistyawati et al. (2023), which highlights the importance of self-efficacy in financial decision-making.

CONCLUSION

Based on the results of hypothesis testing, this study can be concluded as follows:

1. Financial literacy helps individuals make better investment decisions by enhancing their knowledge of personal finance.
2. Investment training improves individuals' abilities and readiness in understanding and assessing opportunities and risks, thereby encouraging more directed investment behavior.
3. Risk attitudes foster individuals' courage in facing investment uncertainty, strengthening their confidence in making investment decisions.
4. The three variables represent the *attitude toward behaviour* component in the Theory of Planned Behaviour (TPB), which underpins the development of investment intentions.
5. Self-efficacy, as a moderating variable, does not amplify the impact of financial literacy; nevertheless, it considerably amplifies the effects of investment training and risk attitudes by facilitating *perceived behavioural control*, which encourages the manifestation of actual investment behaviour.

This study concludes that financial literacy, investment training, and risk attitudes significantly influence investment decisions. Self-efficacy moderates the impact of financial literacy and investment training on investment decisions but does not have the same effect on risk attitudes. The findings suggest that financial education programs should focus on enhancing self-efficacy alongside cognitive and experiential factors to improve investment decision-making.

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