

An Empirical Analysis of Financial Literacy As Mediator for Stock Investment Intention Among University Students

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ABSTRACT

The participation of generations Y (millennials) and Z in the stock market is the lowest in terms of capital invested. There is an urgency to involve the young generation in stock investment. Therefore, this study aims to analyze the influencing factors of stock investment intention in university students. The study offers new insights into the interconnectedness between investor behavioral factors (risk tolerance and internal locus of control), and investor's cognitive factor (financial literacy) that leads to stock investor's intention to invest. Four variables were included: financial literacy, risk tolerance, internal locus of control, and the stock investment intention of university students. The study also examines the mediating role of financial literacy. This quantitative study involved 153 students from a private university in Tangerang, using purposive sampling. Data collection was done using a survey questionnaire, distributed online. Partial Least Square Structural Equation Modeling (PLS-SEM) was used for data analysis. The study discovered internal locus of control is not found to positively influence stock investment intention, but financial literacy and risk tolerance, respectively, have a positive influence on stock investment intention. The study also demonstrated that Internal Locus of Control and Risk Tolerance have a substantial impact on Financial Literacy. Finally, this study confirmed the mediating function of financial literacy in the interaction between Risk tolerance and Stock Investment Intention, as well as between Internal Locus of Control and Stock Investment Intention.

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INTRODUCTION

Stock investment plays an important role in improving a nation's wealth (Yang et al., 2021). This is why many countries, including Indonesia, promote stock investment to attract new retail investors (Mahardika & Zakiyah, 2020). To boost investment participation, Indonesia's capital market (IDX) launched the Yuk Nabung Saham campaign in 2015 to attract the participation of the general public, especially the younger generation in the stock market by educating them (idx.co.id, 2015). Despite the many efforts to increase awareness of the general public about stock investing, the participation of retail investors grows slowly. Compared to its neighboring countries like Malaysia with a 12.8% rate of participation, and Singapore with a 30% rate of participation, Indonesia is still considered to have a low rate of stock investment participation with only 0.4% of its population of 269 million people participating in stock investment (BPS, 2020; KSEI, 2021).

Total investment in the stock market in Indonesia is still dominated by the older age group of investors (above 41 years old) with a total investment of Rp. 722.76T, while the younger investors (below 30) only invested Rp. 52.36 T (KSEI, 2021). To increase the participation of the younger generation, especially university students, around 2000 stock investment galleries or Galeri Investasi Bursa Efek Indonesia (GI-BEI) have been set up on campuses throughout Indonesia (Otoritas Jasa Keuangan, 2019). Therefore, there is an urgency to know the factors that attract more younger investors, including college students, to invest more in the stock market. Previous studies have found many important factors affecting the investment intention of the younger generation, including university students. One of them is financial literacy. The intention to invest is significantly impacted by financial literacy, according to several research studies (Jurenviciene & Jermakova, 2012; Beal & Depacitra, 2008).

Another study also found that financially literate students are more likely to be open to investing in financial services. (Beal and Depacitra, 2008). A lack of financial knowledge makes people reluctant to make any investment decisions (Jurenvicienne & Jermakova, 2012).

Any type of investment, including stock investing, is risky (Ehrhardt & Brigham, 2016): the possibility of profit increases with the level of risk involved in the purchase of a financial instrument. Fauzi et al. (2017) also identified the critical function of risk tolerance in influencing stock investment. Their study revealed that high-risk-tolerant investors favored trading higher-value stocks. Another study confirmed that high-risk-tolerant investors are better able to deal with uncertainty and discomfort, which makes them more willing to make risky investments (Lim et al., 2013). Results are contradictory to the case of young and inexperienced investors who often overlook the various investment risks (Blume, M., 2021). This study is triggered to find out if investment risk is also overlooked in the campus context. Investment decisions are influenced by a variety of factors in addition to risk tolerance and financial literacy. Nofsinger (2001) and Manurung (2012) revealed a significant role of behavioral and psychological factors that influence financial decision-making. These factors can explain how investors make their investments and the types of investments they make. Therefore, it is interesting to analyze the impact of psychological factors, like internal locus of control (ILC) on stock investment intention among university students in Indonesia.

The evidence from the above discussions indicates an urgency to conduct this study involving university students in an emerging country (Indonesia) to help increase their participation in investing more capital in the stock market. It is hoped this study can contribute to the body of knowledge on investment intention, specifically among university students by analyzing the impact

of financial literacy, risk tolerance, and ILC on stock investment intention. Therefore, this study aims to uncover a unique interconnectedness of a cognitive factor (Financial Literacy), a psychological factor (ILC), and attitude (Risk Tolerance) as drivers of an investor's intention to invest in the stock market. The study also looks at financial literacy as a mediating variable in the relationships between risk tolerance and stock investment intention as well as in the relationship between ILC and stock investment intention of university students.

LITERATURE REVIEW

Theory of Planned Behavior

The theory of Planned Behavior (TPB) is the theoretical foundation that is used to explain how an individual makes decisions (Ajzen, 1985). It is derived from the Theory of Reasoned Action (TRA), which claims that attitudes toward a certain behavior and subjective norms influence an individual's intention to do something (Fishbein & Ajzen, 1975, 1980). TPB added one variable that influences behavioral intention: perceived behavioral control (Ajzen, 1991, 2006). Instead of perceived behavioral control, the ILC, which described a person's control belief, was used in this current study. ILC is a psychological concept that specifically echoes the strength of a belief in the ability of a person to control situations, actions, and experiences in their lives.

This study also used Risk Tolerance to reflect Attitude in TPB. Risk tolerance is categorized as an attitude (Fenton, 2008). Risk Tolerance is an important attitude for investors. By considering their risk tolerance attitude, investors can wisely choose stock portfolio options.

Financial Literacy

A study found that financial literacy significantly increases the intention to use financial products and services (Andini & Kurniasar, 2021). National Financial Literacy and Inclusion Survey (SNLIK) reported the Financial Literacy Index of Indonesia

stood at 49.68% in 2022 (Survei Nasional Literasi Dan Inklusi Keuangan Tahun 2022, 2022). This means there are still around half of Indonesians who are not financially literate. A lot of effort is still needed to financially educate Indonesians for better financial wealth.

Financial literacy refers to a meaning-making process that an individual uses in combination with his knowledge, skills, and resources (Mason & Wilson, 2019). This means that financial literacy encompasses the ability to comprehend and apply finance-related concepts. Financially literate investors comprehend the time value of money better (Agarwalla et al., 2013). Moreover, they tend to have an interest in financial and stock markets (Klapper et al., 2012). To gain financial literacy, education is a critical means (Widayati, 2012). This statement is confirmed by Sugiharti and Kholida (2019). Their study discovered that financial management education has an impact on financial literacy.

Risk Tolerance

Grable (2008) defines Risk Tolerance as the willingness of a person to engage in financial behavior even in an uncertain situation offering uncertain results. In stock investing, risk tolerance is considered one characteristic that is most needed by an investor to make effective investment decisions (Kiev, 2002; Olsen, 2008). Knowing an investor's level of risk tolerance is crucial to help make a financial plan and financial decisions (Anbar & Melek, 2010). An interesting finding from previous research revealed that risk tolerance will decrease with age (Morin & Suarez, 1983; Palsson, 1994). This means that younger investors may have higher tolerance towards risks compared to older generations.

Internal locus of control (ILC)

A person's ILC is how they view the world and how much their choices influence their level of success or failure in life (Chen et al., 2013; O'Connor & Kabadayi, 2019). This is also similar

to the concept proposed by Robbins (2001) about how individuals connect life events with their actions or external forces. The key concept of Locus of Control originates from the social learning theory. The theory explains the level of one's beliefs that what is going on around him is caused by internal factors or external factors (Bandura, 1971). Locus of Control also explains the view or perception of someone about what will happen in the future by considering their ability or inability to control the conditions around them.

Locus of Control explains how a person views an event as within his control or beyond his control. Thus, the Locus of Control consists of two constructs: internal and external (Kreitner & Kinicki, 2001). This study analyzes ILC or the degree of a person's belief that what is happening is manageable and within his control. The construct is examined within the context of stock investing.

Stock Investment Intention

Intention is the effort made by an individual to achieve a goal (Ajzen, 1991). Intention has a vital role in the planned behavior theory. Experts offer various definitions of intentions. The intention is typically seen as a personal indicator of what someone plans to do in the future. Behavioral intention has been found to be the most determinant of investor behavior over investment activities (Venkatesh, et al. 2003; 2012). In this study, intention is used in the context of stock investment. This study specifically used stock investment intention to refer to the degree and tendency of an individual investor to invest in stocks.

Hypothesis development

Financial Literacy and Stock Investment Intention

Financial literacy is found in many previous studies as an interesting phenomenon in financial decision-making, which positively affects investment intention (Saddiq, et al., 2019).

Financial literacy helps an investor to make more confident and well-calculated financial decisions (Raut, 2020). Financial literacy is also confirmed to be a driver of the intention to perform routine financial tasks and manage financial emergencies (Gang, 2018). In the context of stock investment, financial literacy helps stock investors to make routine decisions to buy or sell stocks. This triggers the formulation of the following hypothesis.

H1: Financial literacy positively influences stock investment intention.

Internal Locus of Control and Financial Literacy

Individuals with an ILC feel responsible for the outcomes of what they do. This belief can drive them to find information and learn more about financial matters. (Cobb-Clark & Schurer, 2013; Lekfuangfu et al., 2018). Mutlu and Ozer (2021) confirmed the positive link between an investor's locus of control and financial behavior. Investors with a high degree of ILC may be driven to find a way to increase their financial literacy by reading financial information in articles, books, or magazines to be more financially informed. They may also be driven to join financial literacy courses or workshops to improve their financial knowledge and skills. The next hypothesis is developed in light of the empirical data from previous studies.

H2: Internal locus of control positively influences financial literacy.

Internal Locus of Control and Stock Investment Intention

Previous literature reveals the significant role of psychological factors, such as locus of control, in an investor's decision-making (Manurung, 2012). Investors with a proper locus of control will have more confidence in preparing themselves for future investment, which means their locus of control influences their financial decisions (Morris & Perry, 2005). The same notion is supported by a study that uncovered the impact of locus of control on investment

decisions (Ariani, 2015; Musdalifa, 2016). The findings of previous studies discussed lead to the formulation of the following hypothesis.

H3: Internal locus of control positively influences stock investment intention.

Risk Tolerance and Financial Literacy

Risk tolerance and financial literacy significantly impact the decision to invest (Samsuri, et al., 2019). Previous studies confirmed the positive relationships between the two variables (Cai & Zhang, 2014; Nguyen, et al. 2016; and Sadiq, 2022). The link between financial literacy and risk tolerance was also confirmed by Ameliawati and Setiyani (2018). High-risk-taking investors might be more eager to investigate strategies to increase their financial knowledge. A similar relationship is expected to take place in this study. This relationship is formulated in the ensuing hypothesis.

H4: Risk tolerance positively influences financial literacy.

Risk Tolerance and Stock Investment Intention

A previous study found that risks significantly affect financial decision-making (Febrianto, et al., 2022). Risk tolerance is also found to influence investment behavior (Fauzi et al., 2017). Investors with high-risk tolerance are more likely to choose investments with higher value (Sarwar & Affaf, 2018). This study also confirmed that risk tolerance influences the investment behavior of investors. Lim, Soutar, and Lee (2013) found that Investors with high-risk tolerance demonstrate the following specific characteristics: (1) flexibility; (2) ability to handle uncertainties; (3) risk-taking ability; (4) tolerance for others' different opinions and behaviors. Thus, this study formulates the next hypothesis as follows:

H5: Risk tolerance positively influences stock investment intention.

Mediating Role of Financial Literacy

Financial literacy is a critical element in making stock investment decisions. It helps investors to

identify their stock investment options and to have more knowledge on how to manage their investment risks. With such knowledge, investors can make better-informed financial decisions (Sadiq, 2022). In addition, financially literate investors tend to have the ability to manage risks which leads to a stronger intention to invest (Cai and Zang, 2014).

H6: Financial Literacy mediates the interaction between Risk Tolerance and Stock Investment Intention.

Previous research also uncovered the important role of financial literacy as a moderator in the interaction between ILC and stock investment intention. With more financial knowledge, investors having an ILC tend to have higher stock investment intentions (Lefkuangfu, et al., 2018). Not only that, but financial literacy also helps investors to be more confident in managing their investments and to feel that they have more control over their choice of investment portfolio. Overall, previous studies confirmed that financial literacy can function as a mediator in the relationship between ILC and stock investment intention as hypothesized below.

H7: Financial Literacy mediates the interaction between Internal investment and Stock Investment Intention.

The research framework developed for this study is illustrated in Figure 1 below.

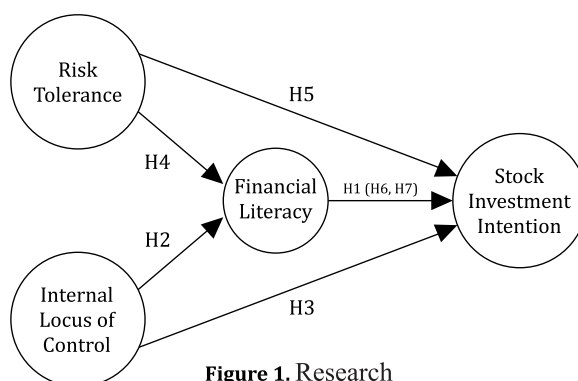


Figure 1. Research Framework of this Study

RESEARCH METHOD

This research adopts a quantitative study using a survey questionnaire. The questionnaire was distributed online to business school students at a private university in Jakarta, in the even semester of 2022/2023. Special inclusion criteria are management students who have taken basic finance courses. Data was gathered using non-probability, judgmental sampling, from January to February 2023. A total of 153 respondents meet the requirement for a minimum sample size calculated using Power Analysis for a one-tailed test, with an effect size (F square) of 0.15.

Measures of constructs for the online survey were developed based on previous literature (Table 1). This study used a five-point Likert scale, ranging from 1 (totally disagree) to 5 (totally agree) to measure each variable. The indicators in the questionnaire were originally in English. Since the study involved Indonesian-speaking respondents, the questionnaire was first translated into Indonesian (with the assistance of a professional translator). Then, the questionnaire was reviewed by a team of three content experts. Some recommended revisions were made accordingly. Three demographic questions (age, gender, and income), and three stock investment behavior questions (stock investment experience, stock investment applications download, and following stock

investment influencers) were included in the online survey.

RESULT AND DISCUSSION

Profile of Respondents

Table 2 below presented the summary of the respondent profile.

Table 2. Profile of respondents

Demographic Variables	Category	Percentage
Gender	Female	60/5
	Male	39.5
Age group	18 years old or younger	8.6
	19 to 20 years old	46.1
	Above 20 years old	45.4
Source of income	Parents	56.2
	Monthly salary	35.9
	Investment gain	0
	Income from special projects	3.9
	Other sources	3.9
Monthly income	Below Rp. 3 million	39.9
	Rp. 4 to 6 million	36.6
	Above	23.5
Investment experience	Yes	45.8
	No	54.2
Downloaded mobile investment apps	Yes	41.2
	No	58.8
Follow Financial Influencers	Yes	32%
	No	67.1%

Source: Developed for this research

Table 1. Measures of constructs

Construct	Items	Source
Financial Literacy	1. I know that inflation and interest rates can change mean. 2. I compare prices before purchasing a product or service. 3. I take into account the price/performance ratio when buying a product or service. 4. I am familiar with financial products.	Mutlu & Ozer (2021)
Risk Tolerance	1. I'm a risk-taker. 2. In stock investing, I'm willing to be responsible for the risk of losing money. 3. I have no doubts about investing my money in stocks.	Yang et al. (2021)
Internal Locus of Control	1. I can solve most of my problems. 2. I have the ability to influence the critical things in my life by myself. 3. I am responsible for the results of my actions.	Mutlu and Ozer (2021)
Stock Investment Intention	1. I am interested in participating in stock investment in the near future, 2. I expect that I can invest in stocks in the near future. 3. I will invest in the stock market.	Venkatesh et al. (2012); Nugraha and Rahadi (2021)

Most students are female (60.5%). The rest are male (39.5%). They are mostly between 19-20 years old (46.1%), the rest are above 20 years old (45.4%), and below 18 years old (8.6%). Most respondents' source of income is from parents (58.2%) and no one gets income from investment return (0%). These respondents' income is mostly below Rp. 3 million (39.9%). Other respondents earn Rp. 4-6 million (36.6%) and above Rp. 6 million (23.5%). When asked about their stock investment experience, 54.2% admitted that they didn't have any stock investment experience. The rest (45.8%) claimed to have stock investment experience. Those who have downloaded stock investment applications are 41.2%, and the rest who haven't downloaded stock investment applications is 58.8%. Finally, respondents are asked whether they are followers of stock investment influencers. Those who are followers of the social media of stock investment influencers are 32.9%, which is lower than those who do not follow the social media of stock investment influencers (67.1%).

The Measurement Model

Data analysis was processed using Structural Equation Modelling (SEM) with Smart PLS 4 software. SEM was selected because the study involved a multi-variate analysis and not all items are distributed normally. SEM is also recognized as having the ability to discriminate measurement and structural models and account for error (Henseler, et al., 2009; Ringle, et al., 2015).

The research model was measured for its reliability (construct reliability, indicator reliability) and validity (convergent validity and discriminant validity). First, construct reliability was analyzed using composite reliability and Cronbach's alpha, which should be above 0.7. Next, the Indicator Reliability was examined using outer loadings > 0.7 (Henseler et al., 2009). The following step is to examine Convergent Validity with Average Variance Extracted (AVE)

that must be more than 0.5 to show that the latent variable can well explain (more than 50%) the indicators' variance (Fornell & Larcker, 1981; Henseler et al., 2009; Hair, et al., 2012). Finally, discriminant validity is tested using HTMT, which should be below 0.9 (Henseler, et al, 2022).

Table 3 (Construct Reliability and Validity) gives the results of Cronbach's Alpha and Composite Reliability: all above 0.7. The table also shows the results of AVE > 0.5 (Hair et al., 2021; Chin, 1998). So, the requirements for construct validity and reliability are all met.

To assess discriminant validity, this study adopts the Heterotrait-Monotrait Ratio (HTMT), which should be < 0.9 . The following table (Table 4) confirms that all values are < 0.9 . This means that the discriminant validity criterion is all fulfilled.

Overall, the measurement model results confirm that the construct reliability, indicator reliability, convergent validity, and discriminant validity are all satisfactory. The process can continue to test the structural model.

The Structural Model

The Multicollinearity test reveals that all VIF values are less than 5 (VIF < 5). This shows that the level of multicollinearity is low, or the values are robust (not biased).

The Path Coefficient results show weak and moderate effects, ranging from 0.030 (ILC \rightarrow stock investment) to 0.566 (Risk Tolerance \rightarrow Stock Investment Intention). The next criterion in structural model assessment is the Multicollinearity (VIF) value. Results of VIF in Table 5 reveal no collinearity problems as all VIF values are < 5 (Hair et al., 2014). The next criterion is the f^2 value which signifies the relative effect of a predictor variable on an independent variable: ≤ 0.02 is categorized as small; the value ≤ 0.15 is medium; and ≤ 0.35 is

Table 3. Construct Reliability and Validity

Variable	Items	Outer loading > 0.7	Cronbach's Alpha > 0.7	Composite reliability Rho_A	Composite Reliability (CR) > 0.7	Average Variance Extracted (AVE) > 0.5
Financial Literacy (FL)	FL1	0.779	0.830	0.843	0.886	0.660
	FL2	0.847				
	FL3	0.834				
	FL4	0.788				
Internal Locus of control	ILC1	0.817	0.780	0.785	0.872	0.694
	ILC2	0.867				
	ILC3	0.814				
Risk Tolerance (RT)	RT1	0.782	0.713	0.720	0.839	0.634
	RT2	0.818				
	RT 3	0.789				
Stock Investment Intention (STI)	STI1	0.942	0.930	0.940	0.955	0.877
	STI2	0.909				
	STI3	0.958				

Source: Smart PLS Outputs

Table 4. HTMT Criteria Evaluation

	Financial Literacy	Internal Locus of control	Risk Tolerance	Stock Investment Intention
Financial Literacy				
Internal Locus of Control		0.365		
Risk Tolerance		0.499	0.275	
Stock Investment Intention		0.448	0.228	0.777

Source: Smart PLS Outputs

Table 5. Path Coefficient, VIF and f²

Hypothesis	Path Coefficient	VIF	f ²
Financial literacy → Stock investment intention	0.166	1.254	0.042
Internal Locus of Control → Financial Literacy	0.214	1.048	0.057
Internal Locus of Control → Stock Investment Intention	0.030	1.108	0.001
Risk Tolerance → Financial Literacy	0.368	1.048	0.147
Risk Tolerance → Stock Investment Intention	0.566	1.202	0.477

Source: Smart PLS 4 outputs

large (Cohen, 1988). This study reveals small to medium f² values: The effect of Financial Literacy on Intention to invest in stocks equals 0.042 (medium), the ILC on Financial literacy is 0.057 (medium); the ILC on Stock Investment Intention is 0.001 (small); Risk tolerance on Financial Literacy is 0.147 (high impact), and the f² values for Risk Tolerance on Stock Investment Intention is 0.477 (large).

R-Square

R Square result for Financial Literacy (0.203) has a small amount of variance explained by its independent variables (Risk Tolerance and ILC). R square value for Stock Investment Intention (0.427) is moderately explained by its independent variables.

Table 6. R-Square Values

Variable	R-square	R-square adjusted
Financial Literacy	0,203	0,192
Stock Investment Intention	0,438	0,427

Source: Smart PLS 4 Outputs

Cross-Validated Prediction Ability Test (CVPAT)

To assess the predictive power of the research model, this study used the Cross Validated Predictive Ability Test (CVPAT). This test is a more robust alternative to the PLS predict procedure, which has been the standard for assessing predictive ability in PLS-SEM (Hair et al., 2022).

The CVPAT is measured by splitting the data into a training set (to build the research model) and a test set (to measure the ability to predict the model). Then, the CVPAT assesses the average loss of the model on the test set and compares the result to the average loss of two benchmarks: The Intercept Average (IA) benchmark is used to predict the mean value of the dependent variable for all observations in the test set. The Linear Regression Model (LM) is used to regress the dependent variable on each of the independent

variables. A model has a strong predictive power if the average loss of the PLS-SEM model is much lower than the average loss of the two benchmarks.

From Table 7. CVPAT, The Indicator Average (IA) values, and Linear Model (LM) Values are negative, thus it can be concluded that the model has strong predictive ability.

Hypothesis test results

All hypotheses in this study were tested using a one-tailed test with a t-value of 1.645, and a p-value of 0.05 or 5% (Hair et al., 2014).

The results of the hypothesis test (Table 8) confirm that Hypothesis 1 is supported, which means there is a positive effect of Financial Literacy on Stock Investment Intention with a path coefficient of 0.166 and p-value of 0.0011 < 0.05 and t-statistics of 2.301 > 1.645. This shows that an increase in Financial Literacy will increase Stock Investment Intention. In the confidence interval of 95%, the change in financial literacy will increase Stock Investment Intention within the range of 0.051 and 0.289.

Table 7. CVPAT

Variable	PLS-SEM vs. Indicator Average (IA)		PLS-SEM - Linear Model (LM)	
	AVL	p-value	AVL	p-value
Financial Literacy	-0.106	0.068	-0.057	0.017
Stock Investment Intention	-0.438	0.000	-0.012	0.612
Overall	-0.248	4.895	-0.038	0.034

Source: Smart PLS Outputs

Table 8. Hypothesis Test Results for Direct Effect

Hypothesis	Path Coefficient	t-Statistics > 1.645	p-Values < 0.05	95% Confidence Interval		Results
				5%	95%	
H1: Financial Literacy → Stock Investment Intention	0.166	2.301	0.0011	0.051	0.289	Supported
H2: Internal Locus of Control → Financial Literacy	0.214	2.545	0.005	0.064	0.341	Supported
H3: Internal Locus of Control → Stock Investment Intention	0.030	0.455	0.325	-0.081	0.134	Not Supported
H4: Risk Tolerance → Financial Literacy	0.368	4.256	0.000	0.207	0.496	Supported
H5: Risk Tolerance → Stock Investment Intention	0.566	8.823	0.000	0.454	0.665	Supported

Source: Developed for this research

Hypothesis 2 is also supported: the ILC positively influences Financial Literacy, having a p-value of $0.005 < 0.05$ and t-statistics of $2.545 > 1.645$. It indicates that a change of 1 point in the ILC will increase financial literacy by 0.005. In the confidence interval of 05 %, the change in the ILC will increase financial literacy within the range of 0.064 and 0.341.

Hypothesis 3 is not supported with a p-value of $0.325 > 0.05$ and a t-statistics of $0.455 < 1.645$. This means that the ILC is not confirmed to positively influence on Stock Investment intention as the p-value and t-statistics do not meet the criteria for being supported.

Hypothesis 4 is supported with a p-value of $0.000 < 0.05$ and a t-statistics of $4.256 > 1.645$, the criteria required for supporting a hypothesis. This means that Risk Tolerance positively influences Financial Literacy with a path coefficient of 0.368 (a change of 1 point in Risk Tolerance will cause a small change of 0.368 in Financial Literacy. In the confidence interval of 95%, the change will be within the values of 0.207 and 0.496.

Finally, Hypothesis 5 is also supported with a p-value of $0.000 < 0.05$ and a t-statistics of $8.823 > 1.645$, and a path coefficient of 0.566. This indicates that a change of 1 point in Risk Tolerance will drive a moderate change of 0.566 in Stock Investment Intention. The change is within the range of 0.454 and 0.665 in the confidence interval of 95%.

Table 9 displays the results of the mediating effect of financial literacy. The direct effect of Risk

Tolerance on Stock Investment Intention shows a significant result with a t-statistics of $8.823 > 1.645$ and a p-value of $0.000 < 0.005$. The indirect effect of Risk Tolerance on Stock Investment Intention with Financial Literacy as the mediator also shows a significant result with t-statistics of $1.751 > 1.645$ and a p-value of $0.040 < 0.05$. This means H6 is supported, indicating that Financial Literacy has a complementary partial mediating effect in the interaction between Risk Tolerance and Stock Investment Intention.

The direct effect result of ILC on Stock Investment Intention is not significant, with a t-statistics of $0.455 < 1.645$ and a p-value of $0.06 > 0.05$. The result of the indirect effect of ILC on Stock Investment Intention with Financial Literacy as the mediating variable is significant. This means that H7 is supported: Financial literacy has a full mediating effect in the interaction between ILC and Stock Investment Intention.

Discussions

In this study, H1 (Financial Literacy positively influences Stock Investment Intention) is confirmed. This finding is consistent with the research findings of Samsuri et al. (2019), which also confirmed Financial Literacy was confirmed to significantly influence investment intention. The more literate an investor is, the more willing the investor is to invest in the stock market. Samsuri et al., (2019), Jureviciene and Jermakova (2012), and Sabri (2016) also discovered the significant influence of Financial Literacy on Investment Intention. Their studies found that financially literate people are more willing to endure risks in their stock investment decisions.

Table 9. Analysis of Mediation

Variable	Path Coefficient	t-Statistics > 1.645	P-values < 0.05	Results	Variable	Path Coefficient	t-Statistics > 1.645	P-values < 0.05	Results
Risk Tolerance → Stock Investment Intention	0.566	8.823	0.000	Significant	Risk Tolerance → Financial Literacy → Stock Investment Intention	0.061	1.751	0.040	Significant
Internal Locus of Control → Stock Investment Intention	0.030	0.455	0.325	Not significant	Internal Locus of Control → Financial Literacy → Stock Investment Intention	0.035	1.648	0.050	Not Significant

Source: Developed for this research

H2 (ILC positively influences Financial Literacy) is also confirmed in this study. This finding is similar to previous studies. University students with an ILC are found to have more enthusiasm to be engaged in financial issues, such as planning and learning about financial matters (Perry & Morris, 2005). Another study by Ida and Dwinta (2010) confirms a similar finding: ILC has a significant role in Indonesian university engagement in their financial management. Thus, students with ILC tend to have more willingness to engage in their search for improving their financial knowledge and skills.

Additionally, the study did not find ILC as having a positive influence on Stock Investment Intention (H3 is not supported). There are several possible reasons for this. Findings from the financial search of students with an ILC may lead them to conclude that investing in stocks may be riskier than investing in other financial assets (Dangol and Manadhar, 2020). Another reason is probably that University students with financial literacy may uncover more important priorities than stock investing (Zhang et al., 2022). Finally, students with an ILC may actively seek financial information which leads them to find other investment opportunities that yield higher gains than stock investing (Chen et al., 2013).

Another interesting result of this study is the fact that Risk Tolerance positively influences Financial Literacy (H4). This result is confirmed by Lusardi and Tufano (2008) that found people's level of risk tolerance is positively linked to their level of financial literacy. This can explain why people having a high risk of tolerance have the tendency to make more efforts to be financially informed. Other studies reveal that risk tolerance is a critical predictor of the level of financial literacy (Lusardi et al., 2010; Van Rooij et al., 2009). Having high risk tolerance may drive investors to take on risks to achieve their financial goals, for example by reading more about financial news and information or seeking

advice from financial experts.

Risk tolerance is found to positively influence Stock Investment Intention (H5). The result of this hypothesis is confirmed by Fauzi et al., (2017) stating that there is a substantial effect of risk tolerance on investment behavior. The higher the risk tolerance of an investor, the more willing he is to make an investment decision to invest. Sarwar and Affaf (2018) also stated that high-risk tolerance boosts investors to take up investments with higher value. Lim et al. (2013) found that investors with high-risk tolerance share similar characteristics of being flexible in dealing with uncertainty, are more risk-taking, and thus are more ready to make investment decisions.

This study uncovered the mediating function of financial literacy in the interaction between Risk Tolerance and Stock Investment Intention (H6). The type of mediating role found is complementary mediation. Several previous studies indicate that risk-tolerant university students are more willing to invest in stocks if they have financial literacy (Agrawal, et al., 2015; Salehi & Muhammadi, 2017; and Dewi, 2020).

Financial literacy is also found in this study to have a full mediating function in the interaction between ILC and Stock Investment Intention (H7). The full mediating role of financial literacy is also consistent with the outcomes of several previous studies (Ahmad et al., 2022; Chen et al., 2020; and Pham & Nguyen, 2017). These studies indicate that having good financial literacy makes investors feel more confident to choose and manage their portfolio of investments. Financially literate people may also have a higher internal drive to be involved in stock investment.

Managerial Implications

This study reveals a significant influence of Financial Literacy on Stock investment intention among university students. The managerial

implication of this finding is that higher education institutions are recommended to help educate university students to boost their financial literacy in various in-class and after-class activities. In class, students are exposed to updated examples of stock investing or case-study discussions as well as class project assignments of stock investment simulation making use of the stock investment lab in their respective campuses. After class, students can be encouraged to participate in financial literacy competitions within groups on campus or compete with other students from other higher education institutions.

As this study revealed a positive influence of ILC on Financial Literacy among university students, it is recommended that higher education institutions encourage their students to equip them with stock investment knowledge and experience in class and after class activities. For example, they can make use of the stock investment galleries in campus for simulation, games, and group competitions to engage students' participation and interest in stock investment.

The study also found a significant influence of Risk Tolerance on Financial Literacy and Stock Investment Intention. In relation to this result, higher education institutions are recommended to provide as many avenues as possible for students to get first-hand experiences of stock investment through games, competitions, and visits to the Stock Exchange Markets. Thus, students are challenged to become more experienced and get more exposure to stock investing. These efforts are expected to improve their ability to manage risk when participating in the stock market as retail investors.

Finally, higher education institutions are recommended to continue to improve the financial knowledge and skills of their students as financial

literacy is found to have a critical mediating role related to Stock Investment Intention. This can be done by updating the curriculum in finance and management to include discussions on current issues in stock investment and inviting stock investment experts and practitioners to share their real investment experiences.

CONCLUSION AND LIMITATIONS

Conclusion

This study concludes that stock investment intention among university students is positively affected financial literacy and risk tolerance. However, Stock Investment Intention is not found to be affected by the ILC. The mediating function of financial literacy in the interaction between Risk Tolerance and Stock Investment Intention and between ILC and Stock Investment Intention is proven to have a partial and full mediating role. This may lead to the interpretation that Financial Literacy has a critical role in boosting stock investment intention.

Limitations

There are several limitations of this study that can be stated here. The first is the moderate result of the R square. There is still more than 50% of the influence of investment intention coming from variables outside this study. Future research can include variables such as trust, age, and the influence of social media influencers in finance (Finfluencers) on stock investment decisions. Another limitation refers to the homogenous respondents who are from one community of youth. Thus, the result cannot be generalized in other age groups. It is recommended that future research may focus on the behavior of the older generation or even generation alpha. Finally, the unsupported result of the influence of ILC on Stock Investment Intention revealed an inconsistent result when compared to previous studies. This calls for more studies to be conducted in this regard.

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