

## UNDERSTANDING FINANCIAL RISK TOLERANCE AMONG YOUNG INVESTORS

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### Abstract

This study aims to empirically examine the effect of self-esteem and financial literacy on financial risk tolerance. In addition, this study also examines the relationship between financial risk tolerance and investment decisions. This type of research is quantitative causality with 68 respondents who were used as research samples through distributing questionnaires to investors in Kebumen Regency. The research hypothesis was tested using Structural Equation Modeling (SEM) with the help of WarpPLS version 8.0 software. The results of this study indicate that self-esteem has a positive effect on financial risk tolerance and financial risk tolerance has a positive effect on investment decisions. However, research cannot prove that financial literacy has an effect on financial risk tolerance. These findings indicate that investors in the current era tend to make stock investment decisions based solely on their perceptions, therefore, socialization and early education about stock investment is very important so that prospective investors can experience definite benefits from the stock investments they made.

Keywords: financial literacy, financial risk tolerance, investment decision, self-esteem

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### INTRODUCTION

The increasing population and the narrowing of job opportunities in Indonesia seem to force people, especially the younger generation, to seek additional sources of income to meet their financial needs. Investment alternatives offered to investors are very diverse, for example investing in the capital market, money market, and other investments in both real assets and financial assets. Investment in financial assets (stocks) is a very attractive alternative and a trend for them. Based on data released by the Indonesian Central Securities Depository (KSEI) in February 2021 regarding SID (Single Investor Identification), it shows that investors in the capital market are dominated by young investors.

Table 1. Investor Demographics as of February 2021 by Age

Age	Percentage	Total Asset
≤ 30 y.o.	57,02%	Rp 32,92 T
31-40 y.o.	22,01%	Rp 69,86 T
41-50 y.o.	11,24%	Rp 129,26 T
51-60 y.o.	6,01%	Rp 186,39 T
> 60 y.o.	3,72%	Rp 407, 09 T

Source: KSEI, 2021

One of the reasons for the increase in the number of young investors in the capital market is the "Yuk Nabung Saham" campaign carried out by the IDX in increasing public awareness of the importance of investment by changing the habits of the Indonesian people from the habit of saving to investing, so that the Indonesian people begin to move from a saving society to investing. This increase is also proof that more and more young individuals are realizing the importance of early investment (Leon & Anggie, 2019).

An important aspect attached to investment, both real and financial investment, is investment risk. When deciding to invest, both individual and institutional investors consider the level of return and risk of an investment. In this context, the financial risk tolerance of an individual is an important factor influencing their investment decisions (Bayar et al., 2020). Financial risk tolerance can be defined as the ability of investors to accept negative changes or negative returns or obtain results that are different from what is expected (Kannadhasan et al., 2016; Leon & Anggie, 2019). The concept of financial risk tolerance is often equated with the concept of risk averse, although in fact they are two opposing concepts, in which risk averse refers to individuals who are risk averse, financial uncertainty, and uncomfortable with high-risk investment choices (Ryack et al., 2016).

Financial risk tolerance is an important concept that has implications for financial service providers (Hallahan et al., 2016), because it is one aspect that determines individual decisions to invest, especially in financial assets (Mahardhika & Zakiyah, 2020), however, an understanding of financial concepts risk tolerance still requires further study, because there is still little research examining the factors that form financial risk tolerance (Heo et al., 2020).

Factors that affect individual financial risk tolerance generally include behavior and perceptions of decision making, life satisfaction, and demographic factors (Ferreira & Dickason-Koekemoer, 2020). According to Leon & Anggie (2019), other aspects that shape financial risk tolerance can be categorized into three aspects, namely: demographics, environment, and biophysical. Among these three aspects, demography is the aspect most often researched in determining financial risk tolerance (Gautam & Matta, 2016; Moreschi, 2011). Grable & Joo (2004); Kannadashan et al. (2016) found that biophysical, in this case self-esteem, affects the level of individual financial risk tolerance.

Another factor that is thought to influence financial risk tolerance is demographic factors, namely financial literacy (Grable & Joo, 1999). Financial literacy refers to a basic understanding of investment, insurance, credit management and other personal finance topics (Hill & Perdue, 2008). Even though demographic factors have been empirically proven to affect financial risk tolerance, there is still little research examining financial literacy (Bayar et al., 2020).

Based on the importance of understanding the factors that shape financial risk tolerance, this study aims to examine self-esteem and financial literacy as antecedents of financial risk tolerance. In addition, this study will also examine the effect of financial risk tolerance on investment decisions.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

### **Self-Enhancement Theory**

The self-enhancement theory, explains why people seek out satisfying experiences in order to uphold and boost their sense of worth or self-esteem. The Self-Enhancement theory has its roots in a variety of personality theories, including those of Homey (1937), Rogers (1961), and learning theory. Its key premise is that people are motivated to feel more valuable (Epstein, 1973). Furthermore, according to this theory, people with low self-esteem are less likely to try to improve their views of themselves than people with high self-esteem are (Jones, 1973). This is because people with low self-esteem are more likely to lack it than people with high self-esteem.

This theory can be used to explain the connection between self-esteem and financial risk tolerance. The self-enhancement theory states that people with high self-esteem are more willing to take financial risks because they feel confident in their capacity to overcome setbacks and turn losses into gains. A person with low self-esteem, on the other hand, is more likely to be fearful of losses and less willing to take financial risks because they believe they are incapable of handling failure and loss.

However, the self-enhancement theory also states that individuals may seek positive experiences to maintain their self-esteem, even if those experiences are irrational or do not produce expected results. For example, individuals with high self-esteem may be more likely to choose risky investments, such as stocks, even if the risk exceeds the expected level of return, just to maintain or enhance their self-worth.

### **Rational Choice Theory**

Hechter and Kanazawa (1997) define rational choice theory as a theory that explains social behavior through individual rational decision-making based on anticipated costs and rewards. According to this theory, people are seen as rational agents with distinct interests and preferences who work to maximize gains from finite resources.

In financial context, this theory can be used to explain why people make reasonable decisions about the projected advantages and disadvantages of taking financial risks. For instance, those with high financial literacy may be more likely to take financial risks because they are aware of the long-term advantages of making risky investments and are better able to balance the rewards and dangers of doing so.

### **Financial Risk Tolerance**

The definition of financial risk tolerance according to Leon & Anggie (2019) is the ability possessed by investors to be able to accept investment risks. In this case, the investment risk in question is a negative return or the difference between the results received and what is expected. Grable (2008; 2017) states that financial risk tolerance is an individual's willingness to take risks when making financial decisions involving savings and investments. Investors face important financial choices regarding asset allocation, fund accumulation strategies, and investments; and all of these choices involve a certain level of financial risk tolerance (Dickason, 2019). Thus, it is important to investigate the factors that have an influence on the level of financial risk tolerance of investors (Diener et al., 1991).

Many aspects are thought to form individual financial risk tolerance, one of which is demographic factors. Research conducted by Bayar et al., (2020) related to demographic aspects

found that the level of financial risk tolerance for young investors is higher than that of adult investors. In addition, they also found that the level of financial risk tolerance grows along with increased income and welfare. . The two results are in stark contrast because in general young investors are individuals who have recently started their careers, compared to mature investors who generally have an established position in their work, but young investors have a higher level of financial risk tolerance.

Investment decision making by an investor can bring consequences, both profitable and detrimental. In this case, financial risk tolerance plays a very important role in making investment decisions (Bayar et al., 2020). In this study, the factors tested as antecedents of financial risk tolerance are self-esteem and financial literacy.

### **The Effect of Self-Esteem on Financial Risk Tolerance**

According to Baumeister et al. (2003), self-esteem is one of the most important multidimensional personality traits. Blascovich and Tomaka (1991) define self-esteem as the perception of self-esteem or the extent to which individuals' value, value, or appreciate themselves. Schaninger (1976) found that self-esteem and risk tolerance have a relationship, although the relationship can be either positive or negative.

Chatterjee et al. (2009) argues that self-esteem also influences portfolio allocation and trading behavior of investors, in which investors with high levels of self-esteem tend to have a higher willingness to invest in risky investment products compared to investors with low levels of self-esteem.

Based on Arkes & Blumer (1985), investors with high levels of self-esteem will not regret bad investment decisions, nor accept the fact that they have made bad decisions (Tykocinski et al., 2004). Based on this description, the first hypothesis in this study:

***H<sub>1</sub>: Self-esteem has a positive effect on financial risk tolerance***

### **Effect of Financial Literacy on Financial Risk Tolerance**

The definition of financial literacy according to Danes & Haberman (2007) is the level at which individuals are able to obtain, understand and assess relevant information used in making financial decisions by understanding the possible consequences that will be faced. Research conducted by Masters (1989) found that individuals who are knowledgeable about investing have a tendency to take higher risks than those who do not or lack knowledge about investing, in line with this, Grable & Joo (1999) found a positive correlation between financial literacy and risk tolerance.

Research conducted by Bajo et al., (2015) found empirical evidence that individuals with lower levels of financial knowledge have a tendency to avoid risks. Based on the results of these studies, it can be concluded that the higher the level of financial literacy possessed by an investor, they tend to have a willingness to invest in investment products that have a high risk. So, the second hypothesis in this study is:

***H<sub>2</sub>: Financial literacy has a positive effect on financial risk tolerance***

### **Effect of Financial Risk Tolerance on Investment Decision**

Investing in real assets and financial assets certainly has its own risks. Investment risk cannot be eliminated but can be managed. Basically, investor behavior in investing can be divided into two, namely risk averse and risk taker. Risk averse investors tend to avoid risk and choose to invest in products with minimal risk even though the returns obtained are relatively smaller or in this study are referred to as investors with a low level of financial risk tolerance. Meanwhile, risk takers are investors who tend to be brave enough to accept investment risks and are willing to channel their funds into high-risk investment products. In this study, risk taker investors are investors with a high level of financial risk tolerance. Based on the description, it can be concluded that the third hypothesis in this study is:

***H<sub>3</sub>: Financial risk tolerance has a positive effect on investment decisions***

Based on the description above, the research model proposed in this study can be seen in Figure 1 below:



Figure 1. Research Model

**RESEARCH METHOD**

The approach used in this research is a quantitative approach. The population of this study are capital market investors registered with KSEI. The sampling technique used is purposive sampling with the criteria of young investors. The category of young investors used in this study are investors who are ≤ 30 years old and already have a stock account. The data collection technique used in this study was a survey by distributing questionnaires via Google form to respondents. The researchers collaborated with the Capital Market Study Group (KSPM) at universities in Kebumen Regency to help disseminate the Google Form link.

There are 4 (four) variables used in this study, namely Self-Esteem and Financial Literacy as exogenous variables; Investment Decision variable as an endogenous variable; as well as the Financial Risk Tolerance variable which plays both an exogenous and endogenous variable.

Table 2. Definition and Measurement

No	Variable	Definition	Indicator	Scale
1	<i>Self-Esteem</i>	Perceived self-esteem or the extent to which individuals value, value, or appreciate themselves.	Adopt 10 items developed by Rosenberg (1965).	5-point Likert scale (1 = strongly disagree; 5 = strongly agree)



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2	<i>Financial Literacy</i>	The degree to which individuals are able to obtain, understand and assess relevant information used in making financial decisions by understanding the possible consequences that will be faced.	Adopting the 9 item used by Pay et al. (2020).	5-point Likert scale (1 = strongly disagree; 5 = strongly agree)
3	<i>Financial Risk Tolerance</i>	Individual willingness to take risks when making financial decisions involving savings and investments.	Adopt the 5 items used by Leon and Angie (2019)	5-point Likert scale (1 = strongly disagree; 5 = strongly agree)
4	<i>Investment Decision</i>	Action in allocating a number of funds into the form of investment with the hope of obtaining profits in the future.	Adopt the 5 items used by Putri & Rahyuda (2017)	5-point Likert scale (1 = strongly disagree; 5 = strongly agree)

Source: Various Literatures

## RESULTS AND DISCUSSION

### Convergent Validity

Convergent validity indicates the ability of a measure to have a positive correlation with alternative measures of the same construct (Hair et al., 2016). There are two criteria for assessing whether the measurement model meets the convergent validity requirements for reflective constructs (Sholihin & Ratmono, 2013), namely a loading value  $> 0.70$  with a significant  $p$  (value  $< 0.05$ ); or an Average Variance Extracted (AVE) value of  $0.50$ .

Table 3 shows the loading,  $p$ -value, and AVE values of each construct. It can be seen that the indicators SE1, SE2, SE9, SE10, FL1, FL8, and FL9 have been removed from the model because their loading values are below  $0.04$ . The recommended procedure states that the decision to remove indicators with loading values between  $0.04$ - $0.07$  is based on the impact of the decision to remove indicators on AVE and composite reliability (Sholihin & Ratmono, 2013). These indicators can be omitted if they have an impact on increasing AVE and composite reliability above the limit (Sholihin & Ratmono, 2013). From table 3 it can be seen that the AVE value is above the specified requirements, namely  $0.50$  and composite reliability  $0.70$  (see table 4), so indicators with loading values between  $0.04$ - $0.07$  in this study are maintained.

Table 3. Convergent Validity

Variabel	Item	Loading	P-Value	AVE
<i>Self-Esteem</i>	SE3	0,810	<0,001	0,627
	SE4	0,806	<0,001	
	SE5	0,753	<0,001	
	SE6	0,765	<0,001	
	SE7	0,823	<0,001	
	SE8	0,793	<0,001	
<i>Financial Literacy</i>	FL2	0,765	<0,001	0,528
	FL3	0,692	<0,001	
	FL4	0,806	<0,001	
	FL5	0,693	<0,001	
	FL6	0,714	<0,001	
	FL7	0,681	<0,001	
	<i>Financial Risk Tolerance</i>	RT1	0,791	
RT2		0,743	<0,001	
RT3		0,851	<0,001	
RT4		0,888	<0,001	
RT5		0,828	<0,001	
<i>Investment Decision</i>	ID1	0,895	<0,001	0,739
	ID2	0,881	<0,001	
	ID3	0,821	<0,001	
	ID4	0,859	<0,001	
	ID5	0,841	<0,001	

Source: Primary Data Processed (2023)

#### **Discriminant Validity**

Discriminant validity measures whether a construct is truly different from other constructs based on empirical standards (Hair et al., 2016). The criterion used to assess whether the measurement model meets the requirements of discriminant validity is the square root value of AVE, namely the column diagonal and brackets must be higher than the correlation between latent variables in the same column (Sholihin & Ratmono, 2013). Based on table 3 it can be explained that the AVE square root value meets the discriminant validity requirements.

Table. 4 Discriminant Validity

	SE	FL	RT	ID
SE	(0,792)	0,123	0,080	- 0,054
FL	0,123	(0,727)	- 0,051	0,051
RT	0,080	- 0,051	(0,822)	0,180
ID	- 0,054	0,051	0,180	(0,860)

Source: Primary Data Processed (2023)

#### **Internal Consistency Reliability**

Internal consistency reliability test was carried out to assess the homogeneity between items that make up a construct. The criteria used to assess the reliability of internal consistency are composite reliability and Cronbach's alpha values above 0.70 (Sholihin & Ratmono, 2013). From table 5 it can be seen that all the constructs in this study fulfill the internal consistency reliability requirements, which are indicated by the composite reliability and Cronbach's alpha value of each construct above 0.70.

Table 5. Internal Consistency Reliability

	SE	FL	RT	ID
<i>Composite Reliability</i>	0.910	0.870	0.912	0.934
<i>Cronbach's Alpha</i>	0.881	0.820	0.879	0.912

Source: Primary Data Processed (2023)

### Hypothesis Testing

The hypothesis in this study was tested using Structural Equation Modeling (SEM) with WarpPLS version 8.0 software. The hypothesis supported in this study is seen from the significance value of the path coefficient. There are 3 (three) hypotheses tested in this study. A hypothesis is declared supported if the p-value is <0.05 (significant at the 5% level). Table 6 and Figure 2 below present a summary of the results of testing the research hypothesis.

Table 6. Hypothesis Testing Results

	Hypothesis	Coefficient	<i>P-Value</i>	Conclusion
H <sub>1</sub>	SE → RT	0,195	0,046	Supported
H <sub>2</sub>	FL → RT	-0,190	0,051	Cannot be Supported
H <sub>3</sub>	RT → ID	0,009	0,009	Supported

Source: Primary Data Processed (2023)



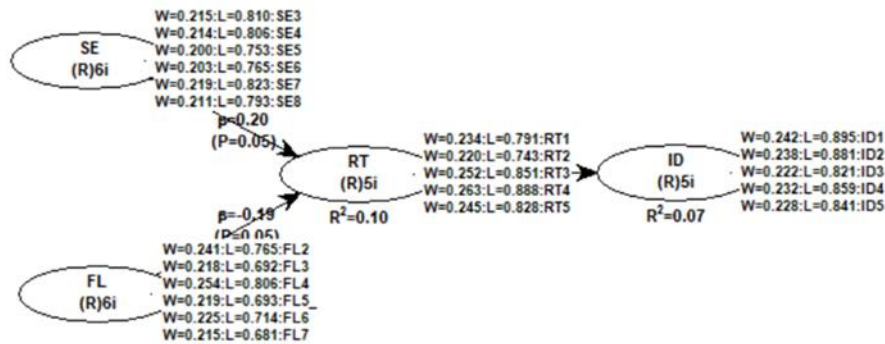


Figure 2. Hypothesis Testing Results

Based on table 6 and figure 2 above, it can be concluded that:

1. The first hypothesis in this study states that Self-Esteem has a positive effect on Financial Risk Tolerance. Based on hypothesis testing, it was found that the p-value was 0.046 < 0.05 and the coefficient value was 0.195. So it can be concluded that the first hypothesis which states that Self-Esteem has a positive effect on Financial Risk Tolerance is supported.
2. The second hypothesis in this study states that Financial Literacy has a positive effect on Financial Risk Tolerance. Based on hypothesis testing, it was found that the p-value was 0.051 > 0.05 and the coefficient value was -0.190. So it can be concluded that the second hypothesis which states that Financial Literacy has a positive effect on Financial Risk Tolerance cannot be supported.
3. The third hypothesis in this study states that Financial Risk Tolerance has a positive effect on Investment Decisions. Based on hypothesis testing, it was found that the p-value was 0.009 < 0.05 and the coefficient value was 0.009. So it can be concluded that the third hypothesis which states that Financial Risk Tolerance has a positive effect on Investment Decision is supported.

### The Effect of Self-Esteem on Financial Risk Tolerance

The results of hypothesis testing support the first hypothesis which states that self-esteem has a positive effect on financial risk tolerance. In other words, the higher the level of self-esteem of an individual, the higher the level of financial risk tolerance.

Self-esteem is the perception of self-esteem or the extent to which individuals' value, value, or appreciate themselves. Individuals with high levels of self-esteem tend to be more confident when faced with riskier investment choices compared to individuals with low levels of self-esteem, this is supported by research conducted by Chatterjee et al. (2009) who argue that self-esteem also influences portfolio allocation and trading behavior of investors, in which investors

with high levels of self-esteem tend to have a higher willingness to invest in risky investment products compared to investors with low levels of self-esteem.

The results of this study support the self-enhancement theory, which states that individuals with high self-esteem tend to be more capable of taking financial risks because they believe that they have the ability and courage to overcome losses and gain profits.

#### **Effect of Financial Literacy on Financial Risk Tolerance**

The results of hypothesis testing cannot support the second hypothesis which states that financial literacy has a positive effect on financial risk tolerance, so it can be concluded that the level of financial literacy possessed by an individual does not affect the level of financial risk tolerance.

According to rational choice theory, individuals are considered as rational actors who seek to maximize the benefits or gains obtained with limited resources. However, in the context of financial risk tolerance, psychological and emotional factors can influence these rational decisions. Individuals may feel uncomfortable with higher risks even though they know rationally about the long-term benefits of such actions. Therefore, even if individuals have good knowledge and understanding of finance, they may still choose to take lower risks due to the psychological and emotional factors that affect their decisions.

#### **Effect of Financial Risk Tolerance on Investment Decision**

The results of hypothesis testing support the third hypothesis which states that financial risk tolerance has a positive effect on investment decisions. In other words, investors who have a high level of financial risk tolerance (risk takers) tend to have a high willingness to invest in stocks. Individuals who have a high level of tolerance for risk tend to have the courage to accept investment risks and are willing to channel their funds into high-risk investment products.

### **CONCLUSION**

Some of the findings from this study include that self-esteem has a positive effect on financial risk tolerance, meaning that individuals who are confident and confident and see themselves as capable in stock transactions, have higher resilience to stock investment risks compared to individuals who have a high level of self-esteem.

The second finding in this study is that financial risk tolerance has a positive effect on investment decisions, meaning that individuals who are willing to accept the risk of investing in stocks tend not to hesitate to make investments compared to individuals who avoid investment risks.

This research cannot prove that financial literacy affects financial risk tolerance because financial literacy only relates to knowledge and understanding of financial topics, while financial risk tolerance involves psychological and emotional factors such as self-confidence, tolerance for failure, and risk perception. Moreover, even if individuals have good knowledge and understanding of finance, they may still choose to take lower risks due to their unique preferences and values.



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This study did not find a correlation between financial literacy and financial risk tolerance; therefore, the authors suggest further research on similar topics to be able to resolve this gap by adding moderating variables such as overconfidence bias, herding bias or optimism bias on the relationship between financial literacy and financial risk tolerance.

In addition, this research was conducted on students in Kebumen Regency, where the investment value tends to be smaller than investors in big cities, so future researchers are expected to conduct research on investors with higher investment values.

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