Jurnal Sistem Informasi, Manajemen, dan Akuntansi (SIMAK)
Volume 21 Issue 02, November 2023
P-ISSN: 1693-5047, E-ISSN: 2621-0320

The Effect of Financial Literacy on Risk Tolerance as an Intervening Variable Against Decision Making

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Abstract: This study aims to analyze the effect of financial literacy and risk tolerance as an intervening variable on decision making. The phenomenon in this study is how financial literacy influences risk tolerance as an intervening variable on decision making (a Makassar Investor study during the Covid-19 pandemic). This research was conducted during the Covid-19 Pandemic, starting at the end of 2019 until the end of 2020, so that phenomena related to financial literacy, risk tolerance, and decision making for investors in Makassar had not existed before. This research used the Structural Equation Model (SEM) method with the Smart PLS 3.0 software program, the data source is primary data from 290 investors registered with securities companies in Makassar. Data were obtained through interviews and distributing questionnaires to determine the effect of financial literacy through investment risk tolerance on decision making. The results showed that the financial literacy factor through risk tolerance had no effect on financial decisions.
Keywords: Financial Literacy, Risk Tolerance, Decision Making

Article Info:
Received:* | *Revised:* | *Accepted:
DOI:

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1. INTRODUCTION

2020 has been a tough year for most people. The World Health Organization (WHO) officially declared the Coronavirus Disease 19 (Covid-19) outbreak a pandemic on March 9, 2020. According to the Big Indonesian Dictionary (KBBI), a pandemic is an outbreak that spreads simultaneously everywhere or covers a wide geography. WHO itself defines a pandemic as a situation when the entire world's population is likely to be exposed to this infection and potentially some of them fall ill. The Covid-19 outbreak that has hit the whole world has forced various countries to make policies to prevent or deal with this outbreak, such as imposing lockdowns, limiting large-scale business activities, and banning travel outside the region, and Indonesia is no exception. WHO urges people to practice physical distancing, namely maintaining physical distance as a way to avoid the wider spread of Covid-19. Therefore, many business sectors have switched to online so that they can continue to carry out activities according to the applicable protocol. This has had a huge impact on the financial condition of the community in general, with different cases, ranging from cutting wages to termination of employment (PHK). This situation forces them to seek new livelihoods for the sake of survival.

Market conditions have quite high volatility when viewed from transactions per day or per week in the second to third quarter of 2020. Investors who are commonly called *"traders"* take advantage of this condition by making fast transactions, of course, accompanied by high risks. March is the month with the highest volatility in 2020 with the highest index in the area of 5,700 and the lowest in the area of 3,900. In addition, in the fourth quarter of October to be precise, it began to show *a rebound* so that the JCI could return to the 6,000 area. In general, from March to December 2020, the JCI started to show price stability despite a decline in September. The Government's strategy in implementing the Large-Scale Social Restrictions (PSBB) is considered appropriate, although it is a little late, seeing from the graph of the increase in the JCI starting from April 2020.

Throughout 2019, investors in the Indonesian capital market grew significantly compared to the previous year. All investors grew 53.04% consisting of stock investors, mutual funds, and government securities (SBN). Based on data released by the Indonesian Central Securities Depository (KSEI), the total capital market investors in Indonesia as of December 27, 2019 reached 2.47 million investors. This number increased significantly from 1.61 million in the 2018 full year period.

Data at the end of 2018 to the end of 2019 showed an increase in the number of investors from 1,619,372 to 2,484,354. This increase of 53.41% is still lower than data for the end of 2019 to 2020. By the end of 2020, the number of investors had reached 3,880,753 even though the pandemic was ongoing. This indicates that business in the capital market is the people's choice rather than real business, which is suffering during this pandemic due to Large-Scale Social Restrictions (PSBB).

The researchers found that the stocks that had a significant increase in price in individual holdings (purchased stock) were increasing in value compared to stock values in the past. The decision to buy and sell shares made by investors is determined by how knowledgeable investors are about financial literacy. Public literacy about the capital market influences their interest in investing in the capital market. Specifically in South Sulawesi, investors are dominated by millennials, especially from Makassar City because of the ease of information on this sector.

Head of IDX Makassar Representative, Fahmin Amirullah said capital market investment in South Sulawesi was dominated by productive age or millennials (Said, 2020). Until the end of 2019, there were 8,665 millennial capital market investors. The total number of investors in South Sulawesi as of November 2019 has reached 17,899 people with a total transaction of IDR 874 billion. As details, the 8,665 are of productive age between 18-30 years, for ages 31-40 there are 4,532 people and above that, there are 4,655 people.

As for the area, Makassar City still dominates the domicile of investors. BI suspects that this is related to the ease with which capital market information can be obtained. The ease of information on the capital market also influences the number of investors, in Makassar there are even members of the stock community themselves. In addition, based on the results of research in 2013, Makassar investors have a risk tolerance in making stock portfolio decisions that are neutral (Said, 2019).

The Director of Supervision for Financial Services Institutions at the OJK Regional Office 6 Sulampua, Dani Surya said, the literacy level of the people of South Sulawesi in 2019 was still minimal and had not even achieved what was expected. Even though the public's understanding of the capital market is still minimal, efforts are still being made to develop it. Especially by increasing public literacy about the capital market so that it is easy to understand. Nationally, literacy regarding the stock market is starting to increase. From 2016 to 2019 nationally, inclusion reached 67.82% and financial literacy was 29.66%.

The difference between this research and previous research is that this study analyzes decision making influenced by financial literacy factors, intervened by investor preference factors for stock decision making by distributing questionnaires to investors registered in securities in Makassar by taking primary customer data sources. So based on the description above, this research will be analyzed under the title "The Influence of Financial Literacy on Decision Making with Risk Tolerance as an Intervening Variable in Makassar Investor Studies during the Covid-19 Pandemic".

2. LITERATURE REVIEW

Financial Literacy

Financial literacy as financial knowledge and ability to apply it (knowledge and ability) (Lusardi & Mitchell, 2010). In research on financial literacy, there is research that separates the definition of financial literacy from financial knowledge. According to Lusardi (2007), financial literacy is knowledge of financial concepts and risks, and the skills to apply this knowledge and understanding to make effective decisions in a financial context.

Meanwhile, according to Bowen, financial knowledge is an understanding of financial terms and concepts needed for everyday use. According to Huston (2010), financial knowledge is an integral part of financial literacy but financial knowledge is not equivalent to financial literacy. Financial literacy consists of two dimensions, namely knowledge and application in financial matters. Financial literacy will affect how people save, borrow, invest, and manage finances. Furthermore, financial skills here also emphasize more on the ability to understand the basic concepts of economics and finance, to how to apply them appropriately (Hailwood, 2007).

Relevant literature in defining financial literacy from Servon & Kaestner (2008); Huston (2010), describes it as "a person's ability to understand and utilize financial concepts". Financial literacy or knowledge differs from a person's level of education. One person may be more educated while another person may lack basic knowledge of financial concepts, such as the time value of money, stocks, bonds, and risk diversification. Or, the person may be less educated, whereas that person may be more familiar with financial matters than a highly educated person. Diacon (2004) has shown that financial experts and people with less financial knowledge have different perceptions of risk. Financial experts prefer riskier alternatives over laypeople because of their low risk perception.

Wang et al. (2011) concluded that the scale related to knowledge is strongly related to the scale of risk. Previous research has revealed that financial literacy (FL) has a positive impact on portfolio diversification (Guiso & Jappelli, 2008), higher stock participation (Rooij et al., 2007), readiness for post-retirement (Lusardi & Mitchell, 2007), wealth accumulation (Rooij et al., 2012). However, while focusing on FL, demographic and socioeconomic factors, this study seems to ignore other individual/attitudinal factors (Aren & Aydemir, 2014).

In addition, investors with higher incomes have more investment knowledge than those with lower incomes, and investors with a bachelor's degree or higher perform better than those with less education. In contrast, several empirical studies have shown that individuals who have difficulty relating their emotions to decisions make very poor decisions in some contexts and take risks even when they result in catastrophic losses (Bechara et al., 1997).

According to Chen & Volpe (1998), several indicators included in financial literacy, including: a) general knowledge, b) saving and borrowing, c) insurance, and d) investment. Meanwhile, Mandell (2007) measures financial literacy by involving 4 indicators, namely: a) income, b) money management, c) spending & credit, d) saving & investing. Recent research from Cameron et al. (2013) in measuring financial literacy includes 5 indicators, namely: a) the economic way of thinking, b) earning income, c) saving, d) spending and using credit, e) money management.

Risk Tolerance

According to William & Richard (1989), risk is a variation of the results that can occur during a certain period. Hsee & Weber (1998) revealed that risk preference is the tendency of an individual to choose something that is risky, in terms of decision making. Bodie (2012), three types of investor behavior in facing risk: a) Risk averse, investors who are reject investment portfolios that are fair games or worse; b) Risk neutral, investors judge risky prospects solely by their expected rate of returns; c) Risk Lover, this investor adjusts the expected return upward to take account of the “fun“ of confronting the prospect's risk. Classify risk preferences into three parts, namely: Low risk (risk averse): investors who are afraid of risk, Medium risk: neutral investors, High risk (risk taking): investors who like risk or dare to take risks.

a. Risk Averse**,** this is the group of people most afraid of taking risks. Because investing is clearly risky. If you are included in this group, you should not act as an investor, but simply as a saver. Thus, the risk averter will formulate the required income as: RR: Required Rate of Return (required income) is the same as Rf: Risk free rate (risk free income) (Sawidji, 2007).

b. Risk Neutral, talking about risk with people who have sensitivity to neutral risk (neutral risk), another name for indifferent risk, is the same as talking to a wall. They will never take into account the risks that accompany their earnings. This group is often said to have no investment goals other than facing the risk itself. RR: Required Rate of Return (required income) is still questionable.
c. Riks Takers, they are classified as risk takers, risk seekers, or risk lovers, namely people who dare to face risks, that is, they are willing to accept investment offers that have high risks, although the courage to face these risks is still accompanied by the habit of calculating income. Formulated as follows, RR: Required Rate of Return (required income) is the same as ER: Expected Return (expected income).

Decision-Making

Many researchers consider decision making as the process of choosing among different alternatives for the right solution in the context of problem solving. Precisely, according to Zeleny (1982), the decision-making process is "the act of choosing the most desirable alternative and treating it instead, as a process: dynamic and interrelated between pre-decision-making, decision-making, and post-decision stages. In a chronological point of view, the researcher has identified the necessary phases to achieve this process.

Simon (1947), Mintzberg (1976), Raisinghani & Theoret (1976) identified three phases, namely: 1) Intelligence activity: tracing environmental conditions that require decision making, 2) Design activity: it is possible to find, develop, and analyze problems, and 3) Selecting activity: the actual choice in selecting a particular action from those available.

According to Kotler and Keller (2012), consumer/investor decisions in buying products/services go through five stages/processes, namely: 1) Introduction to problems/needs, 2) Consumers carry out the buying process starting when the buyer recognizes a problem or need, 3) These needs can be generated by internal or external stimuli, 4) Once consumers are stimulated by their needs, consumers will be compelled to seek more information.

The Importance of Financial Literacy in Making Investment Decisions

The topic of financial literacy has attracted the interest of many scientists and policymakers. In recent years, scientists have stepped up financial literacy research and documented the relationship between financial literacy and investment decision making (Rooj et al., 2007; Christels et al., 2010; Young, 2010; Banks et al., 2011; Lusardi & Mitchell, 2011).

Financial Literacy has a positive effect on economic behavior. Educated people have the ability to make rational decisions. Mastery of financial knowledge makes people act logically and rationally, and can manage savings and consumption properly and correctly. Knowledgeable people will think of consuming less and adjusting their income (Lusardi & Mitchell, 2005).

Empirical findings Arrondel et al. (2013); Dickerson (2016); Reyes (2016) found that financial insight is needed in making financial decisions, considering the psychological and rational sides of the risks they will face (Felner et al., 2009; Brahmana et al., 2012; Tavor & Garyn, 2016; Prasad & Nataraj, 2017), especially in young people (Kizmina, 2010; Adel & Mariem, 2013; Ali et al., 2014). Prasad & Nataraj (2017) found that not all humans use financial knowledge in making

decisions, because it is dominated by emotional factors (Katarachia & Konstatinidis, 2014; Lerner et al., 2014). This condition results in systematic errors and bias in decision making (Helliar et al., 2005). Conversely, Cole et al. (2009) found financial education has little effect on financial decisions, especially in stock investment (Cohen & Kudryavtsev, 2012).

H_1: Does Financial Literacy affect Decision Making?

The Effect of Risk Tolerance on Investment Decision Making

The topic of risk is very important, but there is no general consensus on the definition of various risk terms, including risk perception and risk tolerance (Roszkowski & Davey, 2010). Individual risk tolerance is assumed to be the main determinant in selecting asset allocation, selecting securities and planning strategic goals, so risk tolerance assessment talks more about plans for future goals (Grable & Lytton, 2001). Investor risk tolerance is described as a stabel personality characteristic, in which an individual will tend to choose the same level of risk in various situations (Weber & Figner, 2015). Although the importance of assessing financial risk tolerance has been well documented, in practice the assessment process tends to be very difficult due to the subjective nature of risk taking (Grable, 2000).

Hariharan et al. (2000) argue that the higher the level of risk tolerance owned by investors, the higher the tendency of these investors to invest in risky assets. This means that if a person has a high risk tolerance, he will be tolerant of risky assets, so if he has long-term risky assets, he has the potential to enjoy his retirement better.

Perceived risk is a person's behavior that plays an important role in making risky decisions. Perceived risk contains two dimensions, namely uncertainty and the importance of consequences, so that it potentially requires two different behavioral response modes in an effort to reduce risk (Cho & Lee, 2006). Furthermore, Cho & Lee (2006) argue that risk perception is how an individual assesses a risky condition (uncertainty) and his judgment is strongly influenced by psychological factors and the situation experienced by the decision-maker. Because decision making is influenced by psychological factors and situations that are not always the same, Gilmore et al. (2004) concluded that perceptions of risk can change if conditions change. In this case, the degree of uncertainty will be evaluated and assessed differently by different decision makers.

Research shows that investors' perceptions about investing in the stock market are influenced by financial literacy. Financial experience and financial knowledge influence financial behavior (Lyons et al., 2006). Another study revealed good financial behavior is positively associated with higher levels of financial knowledge (Edminston & Gillett-Fisher, 2006). Research by Aren & Aydemir (2015) has shown a relationship between financial literacy, perceptions of financial risk, and investment decisions. The results of this study prove that individual financial literacy acts as a moderating variable between the relationship between risk tolerance and investment decisions (Aren & Aydemir, 2015).

H_2: Is Tolerance Risk Influential Significant to Decision Investment?

The Effect of Financial Knowledge on Investment Decision Making Through Risk Tolerance

Prospect theory provides a framework that explains how behavioral aspects affect risk tolerance in investment decisions (Waweru, 2008). Sitkin & Weingart

(1995) have explained the problem of decision framing through which risk perception influences risky decision making.

Risk tolerance is defined as the general amount of uncertainty that a person is willing to accept when making financial decisions in almost every part of economic and social life (Putri et al., 2017). The higher the level of risk tolerance, the person will be brave in making decisions. The results of this study are supported by Wulandari & Iramani (2014) that the higher the level of risk tolerance, the more courageous the respondents are in making investment decisions. In the research of Chavali & Mohanraj (2016) that risk tolerance and investment decisions have a positive influence. Meanwhile, Budiarto (2017) states that there is a negative influence between risk tolerance and investment decisions.

H_3: Financial Literacy through Risk Tolerance has a Significant Influence on Decision Making

3. RESEARCH METHOD

This study aims to empirically examine the effect of financial literacy, through investors' risk tolerance on decision making in the stock market. This type of research is field research and library research. The variables in this research are financial literacy, demographic factors, financial behavior, investor risk tolerance, and decision making. The variables in this study are: a) independent variables consisting of financial literacy factors; b) intervening variable (mediation) is risk tolerance; c) dependent variable is decision making.

Location and Time

The research was conducted in Makassar City by distributing questionnaires from November 2019 to March 2020.

Population

The population in this study were all respondents who were investors in securities companies in Makassar in the period November 2019 to March 2020. The securities companies selected were securities companies in Makassar and active in online transactions. Several securities companies in Makassar City have become the choices in this study are as described in Tabel 1 below:

Tabel 1. Quantity Respondents from 9 Securities in Makassar

No	Name securities	Amount respondent	Percentage
1.	Independent Securities	47	17.41
2.	MNCs Securities	58	21
3.	Reliance Securities	15	5.56
4.	Fund mutual Securities	15	5.56
5.	Indo Premiere Securities	25	9
6.	First Asian Capital	50	18.52
7	RHB Securities	25	9.26
8	Phintraco Securities	25	9
9.	Trimegah Securities	10	3.70
	AMOUNT	270	100

Source: Data Primary Processed (2020)

The majority of respondents came from MNC Securities as many as 58 people or 21%, of a total of 270 investors the rest came from 8 securities companies in Makassar. Distributing questionnaires to 16 securities offices in Makassar both online and printout questionnaires for each security were distributed as many as 20-60 questionnaires, a total of 320 which returned as many as 270 printout questionnaires or as much as 84.375% of the total questionnaire of 320 sheets from 9 offices responding securities.

4. RESULTS AND DISCUSSION

This section will analyze the tabulation of respondents' answers descriptively with a descriptive analysis tool using SPSS 23.0. The aim is to describe the distribution of the results of distributing questionnaires regarding the variables in this study, especially for all indicators. These variables are: Financial Literacy, Investor Behavior, Risk Tolerance, and Decision Making.

Each variable is analyzed for its tendency by looking at the average *mean rank* of each variable that has been categorized. Then do the calculation of data intervals in 7 categories, namely: strongly agree, agree, undecided, somewhat disagree, very strongly disagree.

The very strongly disagree answer category illustrates a strong rejection of the indicator statement when it is related to the research variables. The disagree answer category describes the perception of rejection of the variable indicator, but with lower pressure than the strongly disagree statement. The neutral answer category describes the perception of acceptance of a number of indicators but in doubtful conditions due to an indication of the balance of information preferences received or it could also be that there is a mix-information. The agreed answer category indicates acceptance of the indicator statement. The category of very strongly agree answers indicate that the respondent very confidently thinks that the indicator statement is very true and in accordance with what is actually perceived.

Evaluation of the Reflective Measurement Model (Outer Model)

PLS analysis is carried out in three stages: outer model analysis, inner model analysis, and hypothesis testing. Outer model analysis is carried out to ensure that the measurement used is feasible to be used as a measurement (valid and reliable). Outer model analysis can be seen from several indicators: Convergent validity, Discriminant validity, Un-dimensionality.

Meanwhile, an analysis of the inner model/structural analysis of the model is carried out to ensure that the structural model built is robust and accurate. Evaluation of the inner model can be seen from several indicators which include: Coefficient of determination (R^2), Predictive Relevance, Goodness of Fit Index (GoF) (Hussein, 2015).

Hypothesis testing is done by looking at the probability value and the t-statistic. For probability values, the p-value with an alpha of 5% is less than 0.05. The t-tabel value for alpha 5% is 1.96. So that the criteria for accepting the hypothesis are when t-statistics > t-tabel.

Therefore researchers use data analysis tools using PLS (Partial Least Square). Below presents the initial structural model, the value of the model fit can be seen from the values of convergent validity, disriminant validity, composite reliability, and cronbach alpha values. The interpretation of the initial structural model is as follows as shown in Figure 1 below:

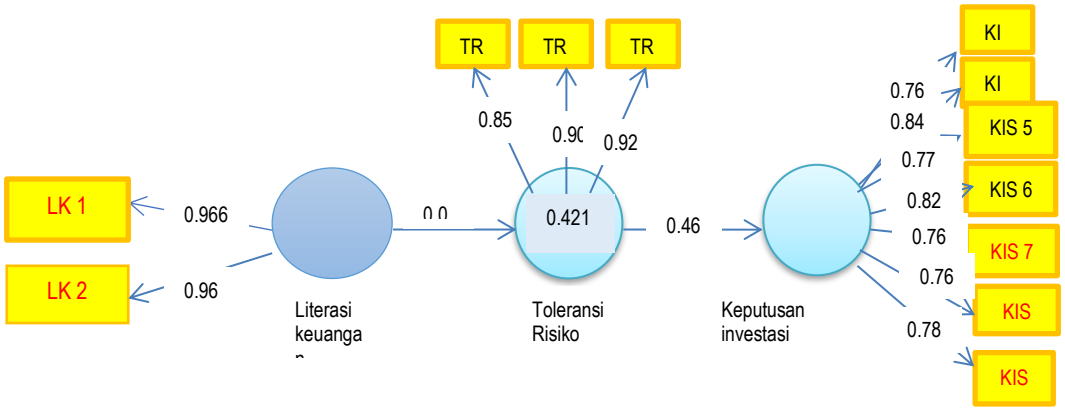

Figure 1. Outer Model SPSS

In figure 1, it appears that in the design of this research model, the indicators are reflective and formative. Reflective indicators are caused by constructs while formative indicators are caused by constructs. It can also be given another meaning, if the indicator tends to be constructor, it will be formative, whereas if the indicator is the result of a construct it will be reflective.

Furthermore, on the financial literacy variable, the indicators are reflective, namely the financial literacy variable compiles any indicators that will be able to explain the financial literacy variables that you want to examine, namely personal financial knowledge and personal financial behavior.

Risk resilience variable, the indicators are formative, namely the indicators are formed from constructs consisting of constructs, financial literacy and financial behavior, meaning that the risk averse, risk neutral and risk taker indicators are influenced by financial literacy and financial behavior.

The investment decision variable has normative indicators, meaning that the indicators for buying and selling decisions are formed and influenced by demographic variables, financial literacy, financial behavior and risk resilience.

The convergent validity value is the factor loading value on the latent variable with its indicators. Expected value > 0.7 (Chin, 1998; Ulum et al., 2008; Hussein, 2015). Convergent validity itself by looking at the average variance extracted (AVE), value of each construct with a correlation between constructs and other constructs in the model. The form of model interpretation is described in tabel 2.

Tabel 2. Goodness of Fit Model

Variable	Items	Deleted Items	Loading Factor	Cronbach Alpha	rho_A	Composite reliability	AVE
Financial Knowledge	Pen. Keu. 1	Pen. Keu. 6	0.870	0.937	0.944	0.952	0.799
	Pen. Keu. 2	Pen. Keu. 7	0.889				
	Pen. Keu. 3	Pen. Keu. 8	0.895				
	Pen. Keu. 4	Pen. Keu. 9	0.902				
	Pen. Keu. 5		0.913				
Tolerance Risk	Toll. Risk. 1	-	0.753	0.954	0.955	0.961	0.711
	Toll. Risk. 10		0.848				
	Toll. Risk. 2		0.813				
	Toll. Risk. 3		0.823				
	Toll. Risk. 4		0.835				
	Toll. Risk. 5		0.867				
	Toll. Risk. 6		0.857				
	Toll. Risk. 7		0.900				
	Toll. Risk. 8		0.867				
	Toll. Risk. 9		0.857				
Stock Investment Decisions	Kep.Inv. 7	Kep.Inv. 1		0.864	0.879	0.918	0.788
	Kep.Inv. 8	Kep.Inv. 2	0.808				
	Kep.Inv. 6	Kep.Inv. 3	0.929				
		Kep. Inv. 4	0.922				
		Kep. Inv. 5					

Source: Primary Data (2020)

Tabel 2 explains that all variables/indicators/constructs have met the test requirements, such as Cronbach alpha, rho_A, composite reliability, and AVE (average variance extracted) values > 0.60. The explanation from the tabel 2 states that the Cronbach Alpha or reliability test states that the extent to which a variable can be declared reliable in measuring the dependent variable. Requirements regarding the value of Cronbach alpha are explained as follows:

a. If alpha > 0.90 then the reliability is perfect (very good)
b. If alpha is between 0.70 - 0.90 then high reliability (good)
c. If the alpha is between 0.50 - 0.70 then the reliability is moderate
d. If alpha < 0.60 then the reliability is low (very bad)

R-Square (R^2)

R-square test (R^2) or the reliability test is stating how reliable an item/indicator is in forming a variable. The value (R^2) is expressed in several reliability categories, namely 0.67 is included in the (good) category, 0.33 is included in the (moderate) category and 0.19 is included in the (weak) category (Chin, 1998). The value of R^2 is as follows:

Tabel 3. R-Square Test

	R Square	Adjusted R Square
Investation decision	0.837	0.836
Risk Tolerance	0.902	0.901

Source: Primary Data (2020)

Based on tabel 3, it can be seen that overall the variables have a reliability value above 0.67 so it can be concluded that all test variables have a reliability value that is in the good category. The R-square value of the independent variable on the investment decision dependent variable (Y_2) = 0.837 and the risk tolerance dependent variable (Y_1) = 0.902.

f-Square (f^2)

f- Square test (f^2) or predictors test is a test to find out how much influence each predictor has. The value of f^2 is 0.02, 0.15, and 0.35 can be interpreted whether the latent variable predictor has a weak, medium, or large influence on the structural level (Chin, 1998). The value of f^2 is as shown in tabel 4 as follows:

Tabel 4. f-Square Test

	Decision Investment	Behavior Investors	Tolerance Risk
Financial Knowledge			0.015
Risk Tolerance	0.145		
Investation decision			

Source: Primary Data (2020)

Tabel 4 shows that the magnitude of the influence between each predictor if tested partially shows that the financial knowledge variable has a weak influence (0.015) if tested partially on the risk tolerance variable, while the magnitude of the influence of the risk tolerance variable on investment decisions shows that it has an influence the weak (0.145).

Multicollinearity Test

The manifest variable must be tested for the presence of multicol. VIF values above 10 indicate the presence of multicolic. The VIF values in this study are as follows:

Tabel 5. Multicollinearity Test

	Demographics	Decision Investment	Knowledge Finance	Behavior Investors	Tolerance Risk
Investation decision					
Knowledge Finance					**1.412**
Risk Tolerance		**10.068**			

Source: Primary Data (2020)

Tabel 5 shows that the VIF value for all items is below 10 except for demographics and risk tolerance for investment decisions. So it can be assumed that the existence of heterogeneous data makes this study not normally distributed.

Hypothesis Test

Direct effects can be seen from the results of the boostrapping model or the interpretation of the path coefficients. The direct effect on each endogenous variable on exogenous variables is as follows as described in tabel 6:

Tabel 6. Hypothesis Test

Hypothesis	Sample Means	Standard Deviation	Q Statistics	P Values	Information
Risk Tolerance → Financial Knowledge	0.042	0.028	1.607	0.110	No Significant
Decision Investment → Risk Tolerance	0.497	0.114	4.280	0.000	Significant
Financial Knowledge → Investment Decision → Risk Tolerance	0.021	0.016	1.419	0.158	No Significant

Source: Primary Data (2020)

Based on the results of hypothesis testing in tabel 6, there are three hypotheses that are not significant, and based on the results of the submission of hypotheses. It can be concluded as follows:

H_1: Financial knowledge has a significant effect on risk tolerance

Based on the results of hypothesis testing, it is stated that financial knowledge has a positive effect (t = 1.607) but not significant (0.110 > 0.05) on risk tolerance. So it can be stated that the hypothesis on H_1 is **rejected.**

H_2: Risk tolerance has a significant effect on investment decisions

Based on the results of hypothesis testing, it is stated that risk tolerance has a positive (t = 4.280) and significant (0.000 <0.01) effect on investment decisions. So it can be stated that the hypothesis on H_2 is **accepted.**

H_3: Financial knowledge has a significant effect on investment decisions by making risk tolerance an intervening variable

Based on the results of testing the hypothesis, it is stated that financial knowledge has a positive (t = 1.419) but not significant (0.158 > 0.05) effect on investment decisions by making risk tolerance an intervening variable. So it can be stated that the hypothesis on H_3 is **rejected.**

DISCUSSION

Financial Knowledge Has No Significant Effect on Risk Tolerance

Based on the results of hypothesis testing, it was stated that financial knowledge had a positive effect (t = 1.607) but not significant (0.110 > 0.05) on risk tolerance.

The results of the study show that financial knowledge has an influence on risk tolerance, but is unable to form the character of the type of risk tolerance (risk averse, risk neutral and risk taker), due to the lack of frequency of education of securities company shares to investors who are customers. This research is in line with previous research conducted by Katarachia & Konstantinidis (2014), Lemer et al (2014), Prasad & Nataraj (2017) who found emotional factors in decision making and resulted in systematic errors and bias in decision making (Helliar et al., 2006; Cole et al., 2009; Cohen & Kudryavtsev, 2012) which stated that financial education does not significantly influence financial decisions, especially in stock investment activities. The results of this study have not been supported by research by Arrondel et al. (2013); Dickerson (2016); Reyers (2016) which state that financial literacy is needed in making financial decisions.

Risk Tolerance Has A Significant Effect on Investment Decisions.

Risk tolerance (risk averse, risk neutral, and risk taker) has a positive effect supported by the goodness of fit model (tabel 2) with an average loading factor of 0.842 (risk tolerance 1-10). Based on the results of hypothesis testing, it is stated that investor behavior has a positive effect (t = 4.280) and significant (0.000 < 0.05) on investment decisions.

Choosing is not an easy job, especially in situations of high uncertainty. The choice to invest in certain assets will have financial consequences in the form of gains or losses.

Based on the calculation results of the t-test, it can be seen that the risk tolerance variable affects investment decisions. These results are in accordance with the Theory of Behavioral Finance, where a person's psychology influences investment decision making. Judging from the type of investor, the respondent has a risk seeker type, where the respondent dares to take big risks to get a big return too. This shows that respondents have a high level of risk tolerance, so respondents are more courageous in facing risks in making investment decisions.

The results of this study are in accordance with the opinion of Budiarto (2017) which states that risk tolerance influences investment decisions, which proves that respondents have a high level of risk tolerance. Pujiyanto & Mahastanti (2012) stated that the influence of risk tolerance on investment decision making, the tendency of respondents who have high risk tolerance to choose high-risk investments, such as stocks and the gain factor is one of the motivations of respondents to choose stock investment.

Financial Knowledge Has No Significant Effect on Investment Decisions by Making Risk Tolerance an Intervening Variable

Based on the results, financial knowledge does not affect investment decisions by making risk tolerance an intervening variable. This result is supported by the respondents' answers on the distribution of the distribution of respondents' answers to questions about financial literacy, in the financial education question of financial education the average respondent answered doubtfully, although on the two questions of financial behavior the respondents' answers ranged from doubtful to strongly agree.

In addition, this financial knowledge is related to the intensity of receiving education for investors. The schedule of educational activities at 8 securities face-to-face educational activities, the average education is conducted once a month, the dominant education is once a year, namely during the implementation of the Capital Market School which is held at the office of the Indonesian Stock Exchange.

In the case of this study, it was found that there was no effect of financial knowledge on investment decisions. This result is in line with research by Cole et al. (2009) and Cohen & Kudryavtsev (2012) which stated that financial education did not significantly influence financial decisions, especially in stock investment activities.

The findings of this study are related to risk tolerance, the result is that Makassar investors are risk takers or dare to accept risks from stock decisions, based on the characteristics of respondents to investors in the city.

Makassar, which is the sample in the Makassar branch, usually the securities offices in Makassar, get the opportunity to present material for those who are new to the capital market and usually those who take part in these activities are students

at both undergraduate, masters and doctoral levels. This research is, from the gender dominated by the male sex, which is based on the results of the study.

5. CONCLUSION

Financial Knowledge Has No Significant Effect on Risk Tolerance
This finding indicates that financial knowledge has no effect on risk tolerance, risk tolerance (risk averse, risk neutral, and risk taker) as a side job so that financial literacy is ignored besides that due to the lack of frequency of education of securities company shares to investors who are customers. From observations and interviews with securities managers in Makassar, educational activities still depend on the Makassar capital market head office which usually holding a capital market school where the speakers are given in rotation to 16 securities in Makassar, however education usually also uses social media tools such as Instagram, WA Group stock education, stock radio, and stock education telegrams.

Risk Tolerance Has A Positive and Significant Effect on Investment Decisions

These findings indicate that the stock investors in Makassar who were sampled in the study have the ability to tolerate existing risks at either the level of being a risk taker, risk neutral, or risk averse which will later influence them in stock investment decisions. This finding also shows that the average Makassar investor is a risk taker, according to researchers this is supported by the characteristics of the Makassar people who are known to be brave in making decisions.

Financial Knowledge Has No Significant Effect on Investment Decisions by Making Risk Tolerance an Intervening Variable

This finding indicates that the financial knowledge possessed by Makassar investors is inadequate in making buying and selling shares decisions through the risk tolerance variable to be able to tolerate stock risks which are uncertain in nature, which later in decision making produces returns or profits expected by investors. The dependence of decision making by the investment manager in the decision to buy and sell shares is one of the causes of the lack of effect on the knowledge of investors in this sample on the decision making of buying and selling shares.

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