



Factors Affecting Investment Decisions: Studies on Young Investors

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Abstract

This study aims to examine the factors that influence investment decisions. This study uses financial literacy and investment experience variables as independent variables, risk tolerance as an intervening variable and investment decisions as the dependent variable. This research is a quantitative study using primary data, with data collection techniques using questionnaires. The population in this study was novice investors in the Economic faculty. Data were analyzed using partial least square analysis. This research is expected to provide benefits to investors for investment decision making.

Key words

Financial literacy, investment experience, risk tolerance, investment decisions

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1. Introduction

Investment is a number of funds issued in the hope of gaining profits in the future. Investment according to the time dimension is divided into two, namely long-term investments with instruments on real assets such as land, buildings, office equipment, vehicles, investments in stocks and bonds. While short-term investments are investments in current assets such as cash, accounts receivable, inventory, and securities. Before investors decide to invest in short-term or long-term investments, there are certain considerations that underlie that decision. Investment decision making is often influenced by intuitive thoughts or emotions rather than logic. Using cognitive perception taken through shortcuts, and only determined by themselves, they will act under the influence of various psychological factors (Sönmez, 2010). Based on data from the PT Kustodian Sentral Efek Indonesia (KSEI) (2017), it is noted that the number of Single Investor Identification (SID) investors broke the 1,000,000 figure in 2017, while in 2016 it was 891,070. the increase in the number of SIDs indicates that the interest of the local community in investing in the capital market, especially stock transactions has increased. In relation to investment decisions, related theories are the behavioral finance theory. Shefrin (2000) defines behavior finance as a study that studies how psychological phenomena influence the financial behavior of stock players (practitioners) and how humans actually behave in a financial setting (Nofsinger, 2001). Tanvir *et al.* (2016) mention in their study that in behavior finances contexts, especially emotion and perception can affect decision making from different perspectives. They found out that emotion intelligence has significance impact on investment decisions and plays a vital role in selection of securities decisions of investments.

Investment decisions are closely related to financial management decisions. Financial management is part of financial literacy. Creating financial literacy intervention is an obvious and a common-sense response to the increased complexity of the financial world. Financial literacy is an important issue at all

income levels. The consumers that had higher income level could be prey to predatory advisers and older people with significant wealth could have communication disabilities and may not understand the current rules. Financial literacy also important for low-income or disadvantaged group to deal with the support services for example the financial counseling (Hassan *et al.*, 2018). Financial literacy is also called financial knowledge or financial literacy is a person's understanding and knowledge of basic financial concepts and the ability to use them to plan and manage their financial decisions (Hogart, 2002). The conceptual definition of financial literacy is divided into five categories, namely, (1). Knowledge of financial concepts, (2) Ability to communicate about financial concepts, (3) Ability to manage personal finance, (4) Skills in making appropriate financial decisions, and (5) Confidence in effective planning for financial needs in the future. Hassan *et al.* (2018) using other factors to measure of financial literacy such as a) Preference for numerical information, b) Attitude toward money, c) Need for cognition, d) Planning for money (long term).

Cooper *et al.* (2014) suggest that someone who has a high level of education, investment experience, and financial literacy tends to prefer risk in investing. Experience is a factor for forecasting investment decisions according to risk preferences and investment duration (Gambetti and Giusberti, 2012). People who have more investment experience will be more tolerant of risk. High-risk portfolios are more relative with less experienced investors. If someone is anxious, he has a negative relationship with experience and little opportunity to take experience and knowledge when making investment decisions.

Risk Tolerance is the level of risk where a person feels comfortable or in other words a level of risk where investors want to make an investment (Dalton and Dalton, 2004). Risk tolerance measurement conducted by Roszkowski (1992) uses various proxies (demographic factors, returns, investment objectives) and subjective questionnaire questions such as response to risk, investment preference, and reaction to the stock portfolio. Successor in investing depends on the decisions made because this has an impact on the benefits or returns that will be obtained. Therefore, the dynamics of decision making have been researched and developed into knowledge that contains theories about decision science or decision making in various types and environments of society. One such theory later became part of various scientific disciplines such as psychology, management, economics, accounting, and sociology (Plous, 1993).

This study seeks to examine the factors that influence the investment decisions of stock instruments for students in Economic Faculty of Universitas Negeri Surabaya. The basis of student selection in Surabaya refers to the highest potential investors in East Java which are dominated by investors who are domiciled in the city of Surabaya. The stock instrument was chosen because it refers to the target of the Indonesia Stock Exchange to socialize stock investments for students in Indonesia, with the "Yuk Nabung Saham" program.

2. Literature review

Research on corporate financial behavior has been carried out by Isbanah (2009) who examines the mechanisms of corporate governance, company size, and leverage on earnings management practices. Next, (Isbanah, 2012) also conducts research on ESOP, productivity, and performance. Corporate behavior also appears in the making of dividend policy decisions, where dividend policies are related to Free Cash Flow, Leverage, Size, and Lifecycle (Paramita, 2014). (Kusumaningrum *et al.*, 2016) Also conducted research on the formation of Crisis prediction models applied to companies in the ASEAN region.

Research on individual financial behavior has been carried out by Paramita and Indarwati (2015) who have examined the level of Economics students' financial literacy of Universitas Negeri Surabaya on average at a moderate literacy rate of 63.8%. Based on the results of data processing, the variables that affect the level of financial literacy are GPA, year of study, and concentration, while the other variables do not affect student financial literacy. Student's Financial Literacy score for Banking and Insurance material has the highest score then proceed with financial management. Student Financial Literacy score of material Financing and capital markets have a low score because in practice sometimes it involves a certain amount of money as an investment and financing capital. The training conducted was also related to the deepening of financial knowledge in the capital market, especially in stock products and the mechanism of stock trading for alumni of Economics Faculty of Universitas Negeri Surabaya (Paramita *et al.*, 2015) and economics teachers (Isbanah *et al.*, 2016). A more in-depth analysis of financial behavior was carried out by Paramita, Isbanah, and Purwohandoko, (2017) by analyzing the influence of cognitive bias and personal traits on investor behavior in the Capital Market. Other research results on investor behavior have also

been carried out by (Paramita, Isbanah, and Kusumaningrum, 2017) by analyzing Capital Market Investors Behavior Based on Theory of Planned Behavior: Study of Surabaya Students.

3. Methodology of research

The research approach used is a quantitative approach because (1) aims to quantify data and generalize the results of samples and populations, (2) the number of samples is many, (3) carried out structurally, (4) analysis of data using statistics, and (5) results research to provide recommendations (Malhotra, 2004) and cross-sectional, because in the same period of time a recording of perceptions was carried out from student investors in Surabaya. While the nature of the relationship between variables is included in causality research because this study is to determine the relationship between variables.

The collection of research data is based on system requirements carried out through literature studies and field surveys. The field survey focused more on expert opinions and filling out questionnaires. While the data analysis technique uses PLS.

3.1. Population and Sampling Techniques

The population of this study is the all-academic members of the Faculty of Economics, Universitas Negeri Surabaya, which has become a stock investor and has stock ownership. The sampling technique used is random sampling.

3.2. Conceptual Framework

Based on the theoretical foundation and the formulation of research problems, the conceptual framework in this study can be seen in the following figure 1:

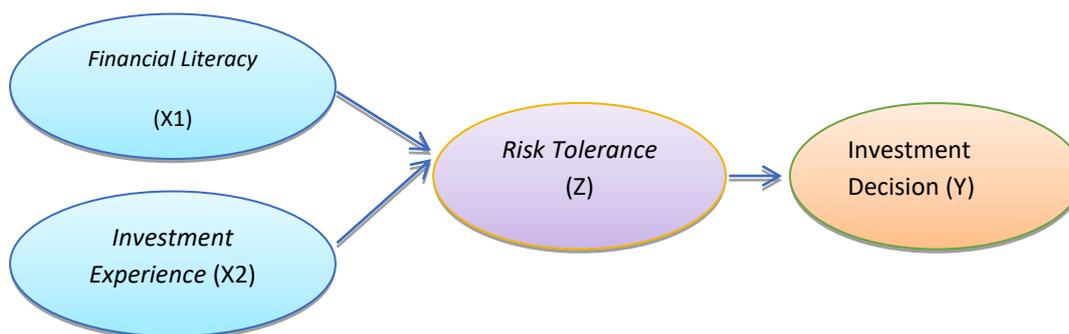


Figure 1. Conceptual Framework

3.3. Hypothesis

Based on the conceptual framework above, the hypothesis of this study is as follows:

H1: Financial literacy affects risk tolerance

H2: Investment experience affects risk tolerance

H3: Risk tolerance affects investment decisions

H4: Risk tolerance is able to mediate the influence of financial literacy and investment experience on investment decisions

4. Data analysis and interpretation of results

4.1. Data Analysis

The results of the significance of influence, financial literacy, investment experience, risk tolerance, and investment decisions are indicated by the value of the parameter coefficient and the t-statistic significance value presented in Table 1. Based on the results of path coefficients in table 1, it is known that:

1. Financial literacy does not affect the investment decision (t-value is 1.260).

2. Financial literacy has a positive effect on risk tolerance (t-value is 2.619) with an original sample of 0.247.

3. Investment Experience does not affect the investment decision (t-value is 0.004).
4. Investment Experience has a negative effect on risk tolerance (t-value of 2,048) with an original sample of -0,212.
5. Risk Tolerance does not affect the investment decision (t- value is 0.029)

Table 1. Results of the Path Coefficient

	Original sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Financial literacy ² Investment Decision	-0.475	-0.322	0.377	1.260	0.208
Financial literacy ² Risk Tolerance	0.247	0.275	0.094	2.619	0.009
Investment Experience ² Investment Decision	0.000	0.05	0.094	0.004	0.997
Investment Experience ² Risk Tolerance	-0.212	-0.227	0.103	2.048	0.0041
Risk Tolerance ² Investment Decision	0.004	0.030	0.125	0.029	0.977

Source: PLS result (2018)

Indirect effects are shown in the following table 2:

Table 2. Indirect Effect

	Original sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Financial literacy ² Investment Decision	0.001	0.0010	0.040	0.022	0.983
Financial literacy ² Risk Tolerance					
Investment Experience ² Investment Decision	-0.001	-0.005	0.030	0.025	0.980
Investment Experience ² Risk Tolerance					
Risk Tolerance ² Investment Decision					

Source: PLS result (2018)

From table 2, it is known that the fourth hypothesis in this study was rejected. Risk tolerance was not able to mediate the influence of financial literacy and investment experience on investment decisions (t-value is less than 1.96). The determination coefficient indicated by the value of R Square and R Square Adjusted is presented in the following table 3:

Table 3. R-Square and R Square Adjusted

	R Square	R Square Adjusted
Investment Decision	0.224	0.188
Risk Tolerance	0.132	0.105

Source: PLS result (2018)

Based on table 3, it is known that the adjusted R Square value for investment decision is 0.188 which means that the risk tolerance variable is able to influence the investment decision by 18.8%. The adjusted R Square value of the risk tolerance variable is 0.105, which means that the financial literacy and investment experience variables can influence risk tolerance by 10.5%.

4.2. Interpretation of Results

The Results of Testing H1

In general, Financial Literacy can be defined as a person's ability to combine all information related to his personal finances and make financial decisions. The definition of Financial Literacy also developed until the 2011 OECD proposed the definition of Financial Literacy as a combination of awareness, knowledge, skills, behavior, and attitudes that are important for making financial decisions that can make a person more prosperous (Atkinson and Messy, 2012). This definition also shows that financial knowledge and skills carried out will result in improvements in the prosperity of one's financial condition (Atkinson and Messy, 2012).

Some literature says that there are several terms to interpret Financial Literacy; namely, financial education, financial ability, financial knowledge, financial sophistication, and the term Financial Literacy are widely used to replace each other with the term (Huston, 2010; Aren and Aydemir, 2014).

Financial knowledge has also been proven to be a reliable predictor of risk tolerance and can be proven statistically (Grable and Joo 2000). Grable and Joo (1999) state that financial knowledge is one of the most important factors that can predict financial risk tolerance. Financial literacy is related to a broader range of financial decisions, such as capital market participation, diversification of portfolios and the ability to avoid extreme debt (Kimball and Shumway, 2007; Guiso and Japelli, 2008; van Rooij *et al.*, 2011). People who have financial literacy generally believe that there are many people out there who cannot take financial decisions that are important and beneficial to them because they do not have the financial education needed to make that decision (Perry, 2008). If someone has a good level of financial literacy, then he will be more likely to be more tolerant of risk (which shows a positive relationship) (Grable and Joo 1999, 2000, 2004; Grable 2000; Frijns *et al.*, 2008; Grable and Roszkowski 2008; Gibson *et al.*, 2013).

The Results of Testing H2

Based on the previous description, a person's experience with regard to finance leads to financial knowledge that creates awareness for him to make himself more understanding of financial management. A young person is not only lacking in financial education but also has minimal knowledge of basic economic dimensions such as interest rate material (Lusardi and Mitchell, 2007a). Low financial knowledge can cause problems in the long run or may end in deficits (Lusardi, 2008), for example, if a person does not understand the material about the upcoming interest rate, surely in the long run he will be burdened with a large amount of debt (Lusardi and Tufano, 2009).

Roszkowski and Davey (2010) found that experienced investors have a better ability to recognize whether an investment is at risk than the ability of investors who have no experience. An experienced investor is confident about the skills and past experience that makes him familiar with the condition. With sufficient financial qualifications, information and also the experience of investors will help to manage pool investment in accordance with the desired goals and according to the time in accordance with a greater risk tolerance level. As a result of risk tolerance and experience with investment has a significant correlation, where a higher investment experience leads investors to high-risk tolerance. Even as applied by several securities companies that provide online stock trading game facilities for beginner investors, it will provide an opportunity for novice investors to get an education as well as effective experience (Frijns *et al.*, 2014).

Respondents of this study are the majority of students of the Faculty of Economics, actually, have sufficient knowledge of shares. They have also utilized online game trading facilities for beginner investors which are used as learning instruments especially in financial management concentration courses, one of which is in Financial Management, Investment Management, and Capital Market, and Financial and Capital Market Institutions. However, of all respondents, respondents who had actually practiced stock transactions on the Stock Exchange with high frequency produced the accuracy of the analysis, and getting profits was still not optimal. Only some of them are proficient in terms of stock transactions. Therefore, respondents do have sufficient knowledge about stocks and have had experience in online trading "games", but have not been proficient in practice in the real world so that they are not skilled to transact shares as professional investors. Bernheim *et al.* (2001) also said that many people (households) did not invest in the capital market because they had insufficient knowledge about stocks, capital market mechanisms, and asset price determination. So that it can be said that the respondents of this study can actually be

considered to have frequently traded online stock games, but because they have not been run professionally, then they still have doubts and feel unsure that they can accept high risk.

The Results of Testing H3

Risk Tolerance is the level of risk where a person feels comfortable or in other words a level of risk where investors want to make an investment (Dalton and Dalton, 2004). Risk tolerance measurement conducted by Roszkowski (1992) uses various proxies (demographic factors, returns, investment objectives) and subjective questionnaire questions such as response to risk, investment preference, and reaction to the stock portfolio. While Investment Decisions are calculated from the proportion of funds used in the capital market compared to the number of funds allocated in the bank account. From the results of PLS calculations, the results show that the Risk Tolerance has no effect on Investment Decisions. Risk tolerance does not affect investment decisions influenced by several other factors such as trust and investment duration. The academics who are investors are only getting to know and start transitions in the capital market in 2015 or when the Investment Gallery of the Faculty of Economics, Surabaya State University was established. This has influenced investors to invest in the capital market because investors still do not believe in trading activities. In addition, support from securities companies to provide education to investors in the academic community of the Faculty of Economics, Surabaya State University is very necessary, especially education that if investment in the capital market is very safe and accountable.

The Results of Testing H4

Based on the results of PLS calculations, it shows that risk tolerance is not able to mediate Literacy and Investment Experience on Investment Decisions. Risk tolerance cannot mediate the tested variables because investors at the Surabaya Faculty of Economics still feel uncomfortable to invest their money in the capital market. The risks posed by investments in the capital market also affect investment decisions in the capital market. In addition, knowledge about investment in the capital market is still not understood in depth.

5. Conclusions

The results of this study indicate that financial literacy has a positive effect on risk tolerance, Investment Experience has a negative effect on risk tolerance, Risk Tolerance has no effect on investment decisions, and Risk Tolerance is not able to mediate Literacy and Investment Experience on Investment Decisions. From this research, suggestions that can be given by researchers to investors are never to be afraid to invest in the capital market because it is safe if the selected securities company has been registered with the FSA. In addition, the next researcher is expected to add other indicators of investment decision variables so that the hypothesis can be accepted.

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