The Effect of Financial Knowledge, Financial Experience, and Locus of Control Towards Investment Decision of Non-Depository Investors

Agus Zainul Arifin & Indra Widjaya
Program Magister Manajemen Universitas Tarumanagara
agusz@fe.untar.ac.id/ indraw9393@gmail.com

The purpose of this study was to verify the theory about the relationship between independent variables, Financial Knowledge, Financial Experience, and Locus of Control toward the dependent variable Investment Decision. Problem-solving uses the Theory of Planned Behavior approach. The subject of research was investors in a series of non-depository throughout Indonesia. We used primary data, which was obtained by distributing online questionnaires. The results of data collection obtained 420 respondents. Analysis of the data used is SEM-path Analysis. Analysis using software of Smart-PLS Version 3.0 Pro. Statistical analysis is done by testing the outer and inner models. The research findings proved that Financial Knowledge, Financial Experience, and Locus of Control positively affect investment decisions. The implications of this finding prove that the Theory of Planned Behavior approach is appropriate to explain the relationship between research variables which is in accordance with the existing hypothesis.

Keywords: *Financial Knowledge, Financial Experience, Locus of Control*, *Investment Decision*

1. INTRODUCTION

The welfare of life exists by maintaining the value of the assets owned. However, the value of this asset depreciates with changes in time. In maintaining the value of human welfare, it is necessary to carry out investment activities. By investing, the value of one's wealth is expected to be maintained, even increased. At the macro level, the investment will also encourage economic growth. However, problems in investment activities will increase the value of wealth and include the risk of investment failure. For this reason, an assessment of the investment object before investing is very important to reduce the risk of failure. This research is focused on investors who invest their funds in non-depository market securities.

When investors assess to choose the right securities, it will involve two investors' abilities, namely rational and subjective abilities. Modern investment theory is built on the assumption that investors are rational. Nevertheless, in many cases subjective considerations are also much to do. Investment Decision as a strategy used by investors aims to assist investors in comparing and selecting investment assets.

Based on the Indonesian Central Securities Depository (ICSD) data, the number of Indonesian capital market investors as of March 2018 reached 1.21 million single investor identification (SID), up 36 percent from the 2016 realization of 894,116 SID. The portion of young investors accounted for 30.30 percent of the total capital market investors. While those aged 31-40 years contributed 25.05 percent, 41-50 years 22.57 percent, 51-60 years 14.45 percent, and over 60 years as much as 8 percent. 59 percent. The rest are from other areas. The majority of Indonesian capital market investors come from undergraduate education, which is 52.8 percent. The postgraduate level only contributed 6.3 percent. "Most of the investors are also from the private sector, which is 54.7 percent—followed by students and businessmen with 17.4 percent and 13.3 percent respectively. However, the number of Indonesian investors is relatively small compared to the total population of 258 million people. Even in terms of quantity, the number of Indonesian investors compared to Malaysia and Singapore is still much smaller. Malaysia has 2.49 million investors, and Singapore has 1.5 million investors (KSEI, 2018). The 2016 public financial literacy index in the Capital Market sector was still lower than other financial industries. Even in the insurance sector, its financial literacy index decreased from 17.8% in 2013 to 15.8% in 2016 (OJK, 2017).

The explanation on the background of this problem shows that there are problems in investment decisions, especially those related to investments in non-banking assets (non-depository). Factors of individual knowledge and behavior mostly cause the causes of problems in investment decisions. Risks arise because individuals do not know what to do when they want to invest, such as underestimating in investing, lack of knowledge in understanding investment, and lack of mental strength to play in investing. (van Rooij, Annamaria Lusardi, and Alessie 2007). Good financial knowledge will strengthen investors to choose securities if it is supported by investor experience from investment activities. The concept of individual financial experience can be expressed in the experience of financial-related activities such as planning investments, pension funds, insurance, and credit (Susdiani, 2017).

Another concept that will encourage investors to make investment decisions is a high sense of individual responsibility for making decisions. This mini concept is called Locus of Control. Locus of control is an important variable for explaining human behavior in organizations (Spector, 1982).

Locus of control can be interpreted as a psychological concept related to personality. Locus of control is a concept that describes a person's perception of responsibility for events in his life. More specifically, locus of control refers to whether people tend to find responsibility internally, within themselves, or externally, in fate, luck, or chance (Larsen and Buss, 2008).

Based on the background described, the purpose of this study is to examine the influence of Financial Knowledge, Financial Efficacy, and Locus of Control on Financial Decisions with the Theory of Planned Behavior approach. The subjects of this research are non-depository securities investors in Indonesia.

B. THEORETICAL REVIEW AND HYPOTHESES

Investment decisions are seen as repeated decisions so that the welfare of a person's life is maintained. Before making a decision, the person will make a good plan to reduce the investment risk. Therefore, this decision is considered as a behavior. Judging from the Theory of Planned Behavior (TPB) developed by Ajzen (1991), a behavior arises because of an intention that strongly encourages the person. The intention to behave is determined by three important factors: attitude, subjective norms, and control for perceived behavioral control (Ajzen, 1991).

Expectancy Theory explains that behavioral intentions will increasingly motivate individuals to work well in doing a job depending on the relationship between what is desired from the work results. The power that motivates individuals to do well in doing a job depends on the relationship between what is desired from the work results. (Vroom, 1964). Therefore, the Expectancy Theory supports the TPB theory.

1. Investment Decision

1) Investment is a form of sacrifice of wealth in the present to get future profits with a certain level of risk. In making investment decisions, investors need information that is an important factor in making investment choices (Christanti and Mahastanti 2011). Investment decisions include two main considerations, namely funding decisions, and net income decisions. (John and Muthusamy, 2011) Alternatively, so-called decisions that consider return and risk, thus investment decisions, consider three main factors: the expected return rate, risk, and the relationship between the level of risk and the expected return (Safelia 2012).

2. Financial Knowledge

Financial knowledge is the ability of someone who understands to manage their finances to make wise financial planning decisions to deal with financial problems well (Halim and Astuti 2015; Chotimah and Rohayati 2013; Pritazahara and Sriwidodo 2015). Financial knowledge used to deal with financial problems repeatedly will make him accustomed and form an attitude that will motivate him to make decisions into light jobs, and the risks he faces become increasingly ignored so that financial decisions are made faster with confidence in their success increases.

Financial knowledge is vital because it makes it easier for individuals to understand and understand future investment planning and savings behavior. (Pritazahara and Sriwidodo 2015). With high financial knowledge, investors can determine their investment decisions in company shares more safely and with better results (van Rooij, Annamaria Lusardi, and Alessie 2007)

Hypothesis 1: Financial knowledge has a positive effect on financial decisions

3. Financial Experience

A financial Experience is an event experienced by individuals in many financial transactions through careful consideration (Lusardi and Tufano, 2009). Financial experience in question is events or things related to financial transactions that have been experienced (Ariska, 2018). The experience is related to finance activities, such as planning investments, pension funds, insurance, and credit. Based on this experience, it will be considered and planned in the future in order to meet future needs. (Susdiani, 2017). Financial experience is related to the ability to make financial statement analyses based on relevant information. Individuals who have much financial experience have many considerations that will make it easier to manage their finances to make investment decisions faster with better and optimal decision results. These namely investment decisions provide high returns with low risk.

Hypothesis 2: **The wider the financial experience, the more optimal it will be in making investment decisions.**

4. Locus of Control

Locus of control is an important variable for explaining human behavior in organizations (Spector, 1982). Locus of control can be interpreted as a psychological concept related to personality. Locus of control is a concept that describes a person's perception of responsibility for events in his life. More specifically, locus of control refers to whether people tend to find responsibility internally, within themselves, or externally, in fate, luck, or chance (Larsen and Buss, 2008). It is a person's beliefs about how and where events are perceived as pleasant or unpleasant, becoming the basis for action (Elena et al., 2015). As an individual's ability to control an event in his life (Yarbrough et al., 2012). As the potential for one's ability to control an event that will strengthen the choice of events. If the reinforcing factor is the possibility of an event from a variety of choices of events, then he will focus more on the event (investment choice) that he believes the most. Thus, the consideration will be more mature by using better information to make investment decisions more optimal (Rotter, 1966). Investors who have a high locus of control tend to be more daring in taking high risks in determining investment decisions (Ahmed, 1985).

Rotter (1966) distinguishes the orientation of locus of control into two, namely internal locus of control and external locus of control. Individuals with an internal locus of control tend to think that skills, abilities, and efforts determine what they get in their lives. At the same time, individuals with an external locus of control view the world as something that is not predictable and determined by external forces such as fate, destiny, luck. The dimensions of internal and external locus of control focus on strategies for achieving goals without considering the origin of these goals.

Hypothesis 3: Locus of control affects investment decisions.

C. METHOD

The subjects of this research are stock investors, mutual funds, bonds, foreign currencies (Forex), Mandiri Pension Funds, and insurance in Indonesia. The objects in this study are independent variables: Financial Knowledge, Financial Experience, and Locus of Control as independent variables. Investment Decision as to the dependent variable. The variables of this research are qualitative, namely in the form of constructs that are measured by using indicators. Financial decisions are measured by six items, financial experience using four items, financial knowledge using six indicators, and Locus of Control using nine indicators. The data used are primary. Data was obtained by distributing questionnaires using online google forms (online). Data collection was carried out from 15 May 2019 to 23 June 2019. The results of the data tabulation were analyzed using the SEM-PLS method. The analysis is carried out with the outer and inner models.

D. HYPOTHESIS ANALYSIS

Statistical analysis was carried out by testing the outer and inner models of the model. Outer Test model to test the validity and reliability. The inner model test was conducted to test the hypothesis, goodness of fit, and coefficient of determination. The research model created is presented in Fig 1. Figure 1 presents how each variable is related to the other as cause and effect variables based on previous theoretical studies—data analysis using the application software Smart-PLS version 3.0 pro.

1. Test Outer Model

The outer model test was conducted to test the validity and reliability. Validity test using Convergent Validity, Cross Loading. The Loading Factor test does the reliability test. Validity test using Convergent Validity, Cross Loading. Validity test to test the accuracy of indicators to measure abstract variables. Validity test using Convergent Validity, Cross Loading, Validity test results prove all indicators are valid.

This reliability test is done by looking at the value of Cronbach's alpha, rho_A, and composite reliability. The recommended value for this criterion is > 0.7 (Hair et al., 2011). The results of this reliability test are presented in Table 1. Table 5.7 shows that the value of Cronbach's Alpha on the FE (Financial Experience) variable is above 0.7; this indicates that the FE indicator is declared reliable. Likewise, with the FK (Financial Knowledge), ID (Investment Decision), and LOC (locus of control) indicators, Cronbach's Alpha and Composite Reliability values are above 0.7.

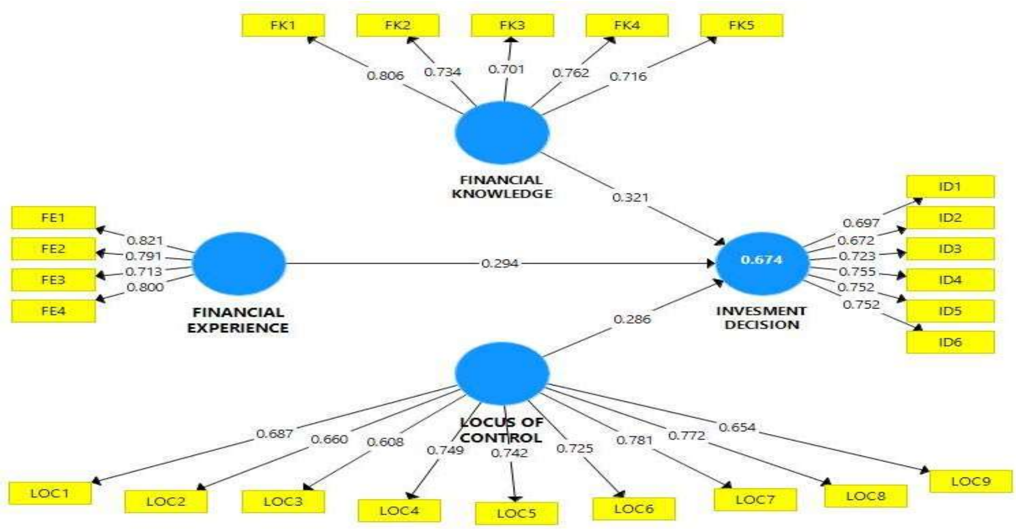

Figure 1. Research Model and Validity Test

2. Inner Model Test

The inner model test was conducted to test statistical hypotheses in testing the Inner Model by testing the Coefficient of Determination, Goodness of Fit, and Hypothesis Testing.

In the Goodness of Fit test, we find out whether the accuracy of a model is said to be good or not. To see the accuracy of this test criteria is to look at the NFI value close to one. The test results are presented in Table 5.8. Table 1 shows the

NFI value is close to one (0.839). It means that the accuracy of the research model is good.

Table 1. Results of Goodness of fit

	Saturated Model	Estimated Model
NFI	0.839	0.839

In the Coefficient of Determination test, we find out the results of this test by looking at the value of the R-square. The R-square value is 0.674 or 67.4%. The statistical hypothesis test is to test the relationship between one independent variable and one dependent variable, ceteris paribus, which forms the research model that has been built. The results of the t-test are presented in Table 2. The results of this t-test conclude that all independent variables, namely Financial Experience (FE), Financial Knowledge (FK), and Locus of Control (LOC), have a significant positive effect on Investment Decision (ID).

Table 5.9. Hypothesis Test Results

	Original Sample	**T Statistics (|O/STDEV|)**	**P Values**
FE → ID	0.294	5.209	0***
FK → ID	0.321	4.354	0***
LOC → ID	0.286	4.127	0***

B. Discussion

The results of the statistical hypothesis test prove that Financial Knowledge has a positive effect on Investment Decision (Hypothesis 1). It means that the higher the financial knowledge of investors, the behavior in their investment decisions is getting stronger. Financial knowledge is the ability to understand, analyze, and manage finances appropriately to avoid financial problems (Halim and Astuti 2015). The higher the ability to understand and analyze finances, the more accurate the ability to make investment decisions. It is indicated by the return from the investment that will be more satisfying; namely, the expected return is more precise, i.e., the results obtained provide higher returns according to a high level of risk. For this reason, one's financial knowledge needs to be improved by: improve understanding in financial management (FK-1 indicator). Because the indicators in FK1 provide a high contribution value to financial knowledge. Understanding financial management is related to experience. In TPB, it means that the higher experience gives a stronger desire to invest. A strong desire will encourage stronger investments (Ajzen, 1991). The results of this study support the results of previous research conducted by (Tri Ariska 2018) (Shadnan 2016) and (Lee, Yun, and Haley 2012).

The results of the statistical hypothesis test prove that Financial Experience has a positive effect on Investment Decision (Hypothesis 2). Financial experience is an individual experience that occurs in managing and managing their finances as a consideration and planning for the future to meet future needs. The results of this study show that Financial Experience has a positive influence on investment decisions. Investment. With financial experience, it can be used to manage finances well; individuals will allocate their funds to be invested in various assets after considering their short-term needs. The most dominant indicator of Financial Experience is FE-2 (I like to do investment analysis before investing). So to improve the quality of investment decisions, it is necessary to encourage the behavior of this value, namely pleasure. This behavior can be fostered through the early education of each individual. Through education will increase knowledge. This statement is proof that knowledge (Financial Knowledge) has a positive impact on investment decisions. The results of this study strengthen the results of research conducted by Fitra, Rasyid, & Susanti (2018), Susdiani (2017), Pritazahara, and Sriwidodo (2015), Ariska (2018), Pritazahara and Sriwidodo (2015). Moreover, research conducted by A. K. Wardani (2017) proved that it had no real effect.

The results of the statistical hypothesis test prove that Locus of Control has a positive effect on Investment Decision (Hypothesis 3). Locus of control is a person's belief about the extent to which a person feels whether or not there is a relationship between the efforts made and the results received to control the events that affect their lives. Beliefs are formed based on past experiences. In strengthening the investment decisions, the experience must be cloudy (positive experience). It is evidenced by a positive relationship between experience and investment decisions from this research model. In increasing the confidence (Locus of control), it is necessary to encourage its ability to overcome problems that can arise from investment decisions. This thinking is based on evidence that this indicator provides the most dominant value of the Locus of control (LOC-7 indicator). The results of this study are in line with research conducted by (Fitra, Rasyid, and Susanti 2018) (Ariani 2015). Ariaini, (2015). However, Sukirno (2019) research stated that Locus of control does not have an important impact on investment decisions.

CONCLUSION

From the research problems and empirical evidence obtained based on the hypotheses that have been built, it can be concluded that the Theory of Planned Behavior can explain and answer the problems that are significantly built because it can verify the theory of the model built. It is proven that the variables of Financial Knowledge, Financial Experience, and Locus of Control have a positive effect on investment decisions. The model built in this study also proved to explain the state of the sample well.

REFERENCES

Ahmad, Nurul Wajhi. 2016. "FINANCIAL LITERACY OF YOUTH: A CASE STUDY OF ISLAMIC BANKING AND FINANCE STUDENTS IN KOLEJ UNIVERSITI ISLAM ANTARABANGSA SELANGOR Nurul." *Journal Of Management & Muamalah, Vol* 6(2):277–287.

Ahmed, S. U. 1985. "NAch, Risk-Taking Propensity, Locus of Control and Entrepreneurship." *Personality and Individual Differences* 6(6):781–782.

Ajzen, Icek. 1991. "The Theory Of Behavior." *Organizational Behavior And Human Decision Processes* (2):179–211.

Ariaini, Sofi. 2015. "_PENGARUH LITERASI KEUANGAN, LOCUS OF CONTROL, DAN ETNIS TERHADAP PENGAMBILAN KEPUTUSAN INVESTASI "*Artikel Ilmiah*.

Ariska, Rita Tri. 2018. "PENGARUH PENGETAHUAN KEUANGAN, PENGALAMAN KEUANGAN, DAN ETNIS TERHADAP PENGAMBILAN KEPUTUSAN INVESTASI SAHAM DI SURABAYA." 1–14.

Ayu Wulandari, Dewi and Rr. Iramani. 2014.

"Studi Experienced Regret, Risk Tolerance, Overconfidance Dan Risk Perception Pada Pengambilan Keputusan Investasi." *Journal of Business and Banking* 4(1):55.

Bell, David E. 1982. "Regret In Decision Making Under Uncertainty." *Deutsche Zahnarztliche Zeitschrift* 37(12):961–981.

Bianco, Candy a and Susan M. Bosco. 2011. "Financial Literacy: What Are Business Schools Teaching?" *Journal of Global Business Management* 7(1):1–8.

Chen, H. and R.Volpe. 1998. "An Analysis of Personal Financial Literacy Among College Students." *Financial Service Review* 7(2):107–128.

van Dijk, Eric and Marcel Zeelenberg. 2005. "On the Psychology of 'If Only': Regret and the Comparison between Factual and Counterfactual Outcomes." *Organizational Behavior and Human Decision Processes* 97(2):152–160.

Elena, Milka, Arturo Córdova-Rangel, Elena Moreno-García, Arturo Garcia-Santillan, and Corresponding Author. 2015. "Empirical Evidence on Locus of Control among Owner and Manager and Its Relation to Success Firms." *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 6(3):177–184.

Fitra, Halkadri, Rosyeni Rasyid, and Yuliza Susanti. 2018. "The Influence of Locus of Control and Financial Knowledge to Employee Investing Decision PT. Pertamina (Persero) Branch of Padang."

Ghozali, H. I., & Latan, H. (2014). *Partial Least Squares: Konsep, Teknik dan Aplikasi Menggunakan Program SMARTPLS 3.0 Untuk Penelitian Empiris.* Semarang: Universitas Diponegoro

Hair, Joe F., Christian M. Ringle, and Marko Sarstedt. 2011. "PLS-SEM: Indeed a Silver Bullet." *Journal of Marketing Theory and Practice* 19(2):139–152.

Hassan Al-Tamimi, Hussein A. and Al Anood Bin Kalli. 2009. "Financial Literacy and Investment Decisions of UAE Investors." *Journal of Risk Finance* 10(5):500–516.

Hung, Angela, Andrew M. Parker, and Joanne Yoong. 2009. "Defining and Measuring Financial Literacy." *Ssrn*.

Hwang, Michael and Jennifer Fong Lee Cheng. 2011. *Definition of "Investment" - A Voice from the Eye of the Storm*. Vol. 1.

John, Franklin and Muthusamy. 2011. "Impact of Leverage on Firms Investment Decision."

International Journal of Scientific & Engineering Research 2(4):1–16.

Larsen, Randy J. and David M. Buss. 2008. *Domains of Knowledge About Human Nature*. Lusardi, Annamaria and Olivia S. Mitchell. 2014. "The Economic Importance of Financial

Literacy: Theory and Evidence." 52:5–44.

Lusardi, Annamaria and Peter Tufano. 2009. "Debt Literacy, Financial Experiences, and Overindebtedness." (1):1–45.

OJK. 2017. "Strategi Nasional Literasi Keuangan Indonesia (Revisit 2017)." *Otoritas Jasa Keuangan* 1–99.

Pritazahara, Ritma and Untung Sriwidodo. 2015. "PENGARUH PENGETAHUAN KEUANGAN DAN PENGALAMAN KEUANGAN TERHADAP PERILAKU PERENCANAAN INVESTASI DENGAN SELF CONTROL SEBAGAI VARIABEL

MODERATING." *Jurnal Ekonomi Dan Kewirausahaan* 15(1):28–37.

Putra, Aditya Mahendra. 2015. "LOCUS OF CONTROL DAN KEPRIBADIAN SEBAGAI VARIABEL." 3(2):10–26.

Putri, Wilantika Waskito and Masyhuri Hamidi. 2019. "FAKTOR DEMOGRAFI TERHADAP PENGAMBILAN KEPUTUSAN INVESTASI (STUDI KASUS PADA MAHASISWA MAGISTER MANAJEMEN FAKULTAS EKONOMI UNIVERSITAS ANDALAS." 4(1):398–412.

Ramakrishnan. 2012. "Financial Literacy and Financial Inclusion." (ii):1–13.

Remund, David L. 2010. "Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy." *Journal of Consumer Affairs* 44(2):276–295.

Rotter, Julian. 1966. “Generalized Expetancies For Internal Versus External Control Of Reinforcement.” 80(1):1–28.

Safeila, Nela. 2012. “KONSEP DASAR KEPUTUSAN INVESTASI DAN PORTFOLIO.” 1(3):217–226.

Salsabila, Bellisa and Nurdin. 2019. “Pengaruh Literasi Keuangan Terhadap Keputusan Investasi Investor Di Galeri Investasi BEI Maranatha.” 5(1):219–226.

Silvy, Meliza and Norma Yulianti. 2013. “Sikap Pengelola Keuangan Dan Perilaku Perencanaan Investasi Keluarga Di Surabaya.” *Journal of Business and Banking* 3(1):57.

Spector, Paul E. 1982. “Behavior in Organizations as a Function of Employee’s Locus of Control.” *Psychological Bulletin* 91(3):482–497.

Sukirno. 2019. “Pengaruh Framing Effect Terhadap Pengambilan Keputusan Investasi Dengan Locus of Control Sebagai Variabel Pemoderasi.” *Nominal, Barometer Riset Akuntansi Dan Manajemen* 3(1):52–60.

Susdiani, Laela. 2017. “Pengaruh Financial Literacy Dan Financial Experience Terhadap Perilaku Perencanaan Investasi PNS Di Kota Padang.” *Jurnal Pembangunan Nagari* 2(1):61–74.

Wardani, Astri Kusuma. 2017. “Pengaruh Literasi Keuangan , Experienced Regret , Risk Tolerance , Dan Motivasi Pada Keputusan Investasi Keluarga Dalam Perspektif Masyarakat Bali.” 195–214.

Worthington, Andrew C. 2013. “Financial Literacy and Financial Literacy Programmes in Australia.” *Journal of Financial Services Marketing* 18(3):227–240.

Yarbrough, David, Morris Coats, Rory Bedford, Michael Buckles, and Nancy Darland. 2012. “Undergraduate Honors Service-Learning & Effects on Locus of Control.” *Journal of Service-Learning in Higher Education* 1.

Yohnson. 2008. “Regret Aversion Bias Dan Risk Tolerance Investor Muda Jakarta Dan Surabaya.” *Jurnal Manajemen Dan Kewirausahaan* 10(2):163–168.

Detik.News,2019, Kerugian Rp 30 M, Puluhan Korban Dugaan Penipuan Investasi Lapor Polisi (https://news.detik.com/berita-jawa-barat/d-4504905/kerugian-rp-30-m-puluhan- korban-dugaan-penipuan-investasi-lapor-polisi)