

THE INFLUENCE OF EDUCATION AND EXPERIENCE TOWARD INVESTMENT DECISION WITH MODERATED BY FINANCIAL LITERACY

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Abstract: Stock right investment decision is expected to provide the expected profit. This research aims to determine the influence of education and experience toward investment decision with moderated financial literacy by individual investors in the city of Medan. This study used primary data by questionnaire and the sample consisted of 250 respondents who are investor active in the city of Medan – Indonesia. Data analysis using descriptive statistical analysis and Structural Equation Modelling. The results showed that investors with the highest level of education is undergraduate 46.80%. The experience of investors invest in stocks that have been investing in shares over 3 years is the largest number as many as 36.00%. Education and investment experience have no significant relationships directly at alpha 5% toward the investment decision. Financial literacy is found to strengthen the links between education and experience toward investment decisions. The implication is that financial literacy is indispensable for the right investment decision.

Key words: education, experience, financial literacy, stock, investment, investment decision

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Introduction

Investment is the placement of the funds at this time hoping to generate profits in the future. Investors in making decisions need important information as the base for determining investment choices. Investment decision is very important because to obtain the optimum return and avoid losses. Investment decision is an action that will produce utility / highest benefits expected (Puspitaningtyas, 2013; Shahzad et al., 2013). According Kusumawati (2013) and Lutfi (2010) suggests an important investment decision of investors examined as it relates to demographic factors (age, education and income). Christanti and Mahastanti (2011) found that the level of education and investment experience influence to stock investment decision.

Indonesia Stock Exchange needs to know the effect of this that stock investment in Indonesia is more passionate. The population of Medan city, according to data from official city population and civil registration of Medan (website accessed on 25 November 2015) first semester 2015 about 2,468,429 people. The population of Medan city that invest stock of less than 2%. To increase the number of investors in Medan city is necessary to find the cause, is there any influence on the level

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of education, experience or the low level of financial literacy. Education can influence investment decisions. The expected the higher the level of education, the investment decision will give satisfaction / optimal benefit, where the return on investment to be an indicator to improve investment performance for investors. Bhandari and Deaves (2005) and Obamuyi (2013) found that level of education influential to the investment decision. Lutfi (2010) investors with higher level of education have more knowledge and skills that are useful in making investment decision. Lewellen et al. (1977); Schooley and Worden (1999) found that the higher the level of education the higher the tolerance for risk in its investment decisions, although found that Kiran and Rao (2004) the higher the level of education of an investor, the more risk-averse attitude in investment decision. Likewise, the research Christanti and Mahastanti (2011) that the level of education which has been classified as high does not make investors confident to determine which factors are more important to make investment decisions. Investors who are educated to degree level are still considering all the factors related to investment activities. The experience can also be related to any investment decision. According Christanti and Mahastanti (2011) there is a relationship between experience investments in stocks with consideration in investment decisions, even though Kusumawati (2013) found the experience factor does not have a significant relationship with the factors consideration investment decisions. This suggests that investors, who have investment experience, have the same consideration to factors consideration in investment decisions. Investors in making investment decisions stock should understand financial literacy. The importance of improving financial literacy due to see the development of new financial products, the complexity of the financial markets, changes in political factors, demographics and economics. Financial literacy could be expected to strengthen the links between education and experience to any investment decision. Bihari and Shukla (2012) found that financial literacy of investors has a significant correlation with the level of education and investor experience. Financial investment leads towards the financial literacy more significant. Even the stock market games provide the opportunity to gain effective exposure and experience (Frijns et al., 2014). According van Rooij et al. (2011) that investor who have higher education effect on financial literacy and investor who has a high financial literacy have a strong relationship with the investment decision. Likewise, with the opinion of Al-Tamimi and Kalli (2009) financial literacy has an influence on the educational level and had a significant relationship between financial literacy with investment decisions.

Literature Review

Stock investing decision is a complex process that includes analysis of several factors and various steps. It is believed that the stock investing decisions are based on personal resources and technical factors. Stock investing decisions by individual investors are usually based on their personal factors such as age, education, income and investment portfolios and others. Stock investing decisions can be defined as

the process of choosing a particular alternative of evaluating a number of alternatives (Chandra, 2008). In order to carry out investment activities, investors need to make investing decisions. Odean (1999) suggests a few things that cause investors to buy shares affected by several things: the volume of stock trading; level stock returns; stock information. And when buying stocks, investors are more focused on the company's data and image than when selling shares. Investors generally buy stocks because they're interested, and perhaps because of their attention on past performance, good or bad. Individual investors, when making the decision to sell, paid less attention to the performance of an investment than when selling. Related to this, there are several things that influence it, namely the low expectations of the market, the large enough market correction, and the loss experience (Luong and Ha, 2011).

Stock investment decisions by individual investors usually based on their personal factors, one of which is education. Education was one factor in considering investment decisions (Lubis et al., 2013). Individual investors have different level of education so that it can be understood that there are different ways of investment decisions with the different levels of education (Lutfi, 2010; Obamuyi, 2013). The higher education, the more investor understands selecting stock investments that can provide optimal return and avoid risk. The higher level of education the higher the tolerance for risk in investment decision (Lewellen et al., 1977; Schooley and Worden, 1999). Investors who are educated to degree level can consider many factors related to investment activities before taking a decision (Christanti and Mahastanti, 2011).

Experience is one of the personal factors that influence investment decisions. Investors who have a lot of experience is usually easier to choose a specific alternative of evaluating a number of alternative stock. Christanti and Mahastanti (2011) suggest there is a relationship between stock investment experiences with consideration of investment decision. Experience influence investor in investment decisions. Investors were little stock investment experience still look at and consider all factors before making investment decision, meanwhile investor who is long enough investment experience already started to reduce the factors that should be considered in investment decisions.

Financial literacy is how to manage your money in terms of insurance, investments, saving and budgeting (Hogart, 2002). Financial literacy refers to a person's ability to understand and use financial concepts (Servon and Kaestner, 2008). Financial literacy is the ability to read, analyze, manage and communicate about personal financial conditions that affect material well-being. It includes the ability to discern financial choices, discuss money and financial issues, plans for the future, and responses to life events that affect financial every day decisions, including economic events in general (Vitt et al., 2000; Cude, 2006; Al-Tamimi and Kalli, 2009) who examined the financial literacy in United Arab Emirates (UAE) state that the level of financial literacy among the UAE investors is under the level required, investors who have a higher education affect significantly in investing

decisions, and there is a significant relationship between financial investment literacy and decisions. Lusardi and Mitchell (2007) termed financial literacy as – familiarity with the most basic economic concepts needed to make sensible saving and investment decisions. Lusardi and Tufano (2008) had focused on debt literacy, a component of financial literacy, defining it as – the ability to make simple decisions regarding debt contracts, in particular how one applies basic knowledge about interest compounding, measured in the context of everyday financial choices. Coussens (2005) stated that – financial literacy represents the culmination of financial access, education, and understanding, as well as an individual’s interest, attitude, and practices that directly benefits the financial efficiency and effectiveness of the individual, and directly and ultimately benefits that of society at large. Studies done by Lusardi and Mitchell (2007) explicitly noted numeracy as a component of financial literacy tests. Further, Peters et al., (2006) explained – numeracy is considered as a basic number skill and to be a distinct construct that is related to and supports financial literacy. Bruce et al., (2009) financial literacy involves adequate knowledge about financial concepts and how financial products work. In other words, financial literacy knowledge is memory-based. Lusardi and Mitchell (2006) found that the level of financial literacy was low among the women, parents, and the ones with low level of education. Research conducted by Bernheim and Garrett (2003) reveals that the financial literacy affects the education which means more frugal life. Volpe et al. (2002) found no difference in the level of financial literacy based on education, experience, age, income and gender. According to Kimball and Shumway (2006) the low financial literacy affects the decision to buy shares. Van Rooij et al. (2011) found that those with low financial literacy significantly dislike and do not do any stock investment.

Research Methodology

The primary data is directly obtained from the capital market investors in Medan who are incorporated in securities companies, who invest funds in the capital market through the sale and purchase transactions in shares. The primary data is a questionnaire containing demographic variables statements (education and experience of the investment), financial literacy and stock investing decisions. Individual investors in Medan assumed 2% of the total population, the population of this study amounted to 49,368 investors. Questionnaires were distributed by random sampling and questionnaires were returned by 250 questionnaires.

The secondary data used is the reference obtained through the study of literature such as reference books or theory that supports the research, the related previous research, and other written data. The data is analysed by using confirmatory analysis and Structural Equation Modelling (SEM). SEM is used to explain the relationships among many variables. SEM can be considered as the unique combination and the basic of SEM is the two multivariate techniques known as factors analysis and multiple regression analysis (Hair et al., 2010).

This study was conducted to determine the direct effect of education and experience of investing on the investing decisions as well as the indirect effect of education and experience to invest with moderated financial literacy investing decisions. The research model can be described in Figure 1.

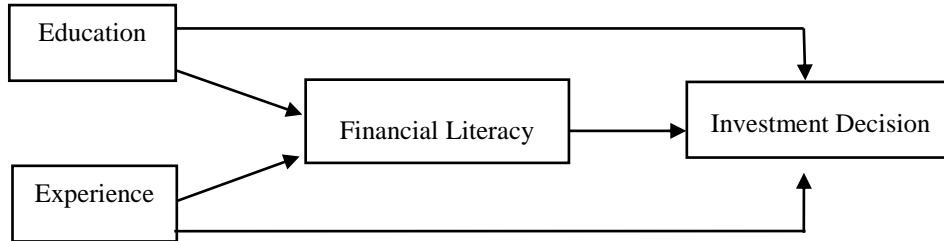


Figure 1. The research model

In order to achieve the objectives of the study, several hypotheses were formulated as follows:

- a) *There is a significant influence of education on investing decisions.*
- b) *There is a significant influence of the investing experience on the investing decisions.*
- c) *There is a significant influence of the education through financial literacy on the investing decisions.*
- d) *There is a significant effect of the investing experience through financial literacy on the investing decisions.*

Research Result

The research findings on the respondents’ characteristics by education can be seen in Table 1.

It is found from the data in Table 1 that the the investors’ education in Medan is dominated by investors with graduate level of education which is 117 people (46.80%). Then it is followed by the investors with the high school level of education as much as 72 people (28.80%).

Table 1. Respondents’ characteristics by education (Research findings, 2016)

No.	Education	Number (Person)	Percentage (%)
1	< High School	12	4.80
2	High School	72	28.80
3	Diploma	31	12.40
4	Graduate	117	46.80
5	Post – Graduate	18	7.20
	Total	250	100.00

This means that the education about investing is more demand by scholars and high school students who have been very excited and eager to invest. Investors with

diploma level of education was in the third, which is 31 (12.40%), then the number of investors with post-graduate level of education are as many as 18 people (7, 20%) and the least was the investors with below high school level of education which is just as much as 12 people (4.80%). The research findings of the respondents' characteristics based on the investing experience in stocks is listed in Table 2.

Table 2. Respondents' characteristics based on investing experience in stocks
(*Research findings, 2016*)

No.	Investing experience in stocks	Number (Person)	Percentage (%)
1	<1 year	88	35.20
2	1 year – 3 years	72	28.80
3	>3 years	90	36.00
Total		250	100.00

It is found in Table 5.2 that the investors who have experience in stock investments in less than 3 years make up the largest number as many as 90 people (36.00%). Then the investor who has experienced the stock investment for more than 1 year are as many as 88 people (35.20%) and the minority is the investors who have experienced the investment in stocks for 1 to 3 years which is as many as 72 people (28.80%). The results of hypothesis testing can be seen in Table 3.

Table 3. The results of hypothesis testing (*Research findings, 2016*)

Variable		Variable	Estimate β	C.R.	P	Result
Investment Decision	←	Education	0.144	1.938	0.053	Not Significant
Investment Decision	←	Experience	0.076	1.072	0.284	Not Significant
Financial Literacy	←	Education	0.125	2.344	0.019	Significant
Financial Literacy	←	Experience	-0.103	-1.719	0.086	Not Significant
Investment Decision	←	Financial Literacy	0.303	3.432	0.000	Significant

Education does not significantly affect the investment decisions in a positive way. It is seen from the path coefficient (β) which is positive at 0.144. The C.R value is 1.938 with a significant probability (p) of 0.053. The C.R value which is <1.96 generates the in significant estimated value at the 5% level. This proves that the hypothesis is rejected (not proven), and explained that educational factors do not affect the investment decisions directly. Experience is not significant to the investment decisions in a positive way. It is seen from the path coefficient (β) which is positive at 0.076. The C.R value is 1.072 with a significant probability (p)

of 0.284. This proves that the hypothesis is rejected (not proven), and explained that experience factors do not directly affect the investment decisions.

Education significantly affects the financial literacy in a positive way. It is seen from the path coefficient (β) which is positive 0.125. The C.R value is 2.344 with a significant probability (p) of 0.019. This proves that the hypothesis is accepted (proven), and explained that educational factors affect the investors' financial literacy directly. Experience does not significant affect the financial literacy in a negative way. It is seen from the path coefficient (β) which is negative at -0.103. The C.R value is -1.719 with a significant probability (p) of 0.086. This proves that the hypothesis is rejected (not proven), and explained that the experience factors affect the investors' financial literacy indirectly.

Financial literacy significantly affects the investing decisions in a positive way. It is seen from the path coefficient (β) which is positive, amounting to 0.303. The C.R value is 3432 with a significant probability (p) of 0.000. This proves that the hypothesis is accepted (proven), and explained that financial literacy directly affects investing decisions. Therefore, financial literacy has a great tendency in influencing investing decisions.

Analysis

Education does not significantly influence the investment decisions toward a positive relation. This proves that the hypothesis is rejected, and explained that educational factors do not affect the investment decisions investor directly. It is the same with research Kiran and Rao (2004) as well as Christanti and Mahastanti (2011) although investor educated to degree level, is still considering all the factors related to investment activities.

Experience does not significant effect on investment decisions toward a positive relation. This proves that the hypothesis is rejected (not proven), and explained that the experience factor does not affect investment decisions directly. This study consistent with Kusumawati (2013) though it has a lot of experience in investment but investors still consider all factors in investment decisions. Investor investment decisions carefully in order to achieve maximum profits and avoid losses.

Education significantly influences financial literacy. It is the same with research van Rooij et al. (2011) that investor who have higher education effect on financial literacy. This means understanding the financial literacy investor in Medan City caused by the level of education. The experience does not significantly influence the direction of financial literacy with a negative relation. The research does not consistent with the research Bihari and Shukla (2012) as well as Frijns et al. (2014). Experience in the trading stocks is not always improving financial literacy. It is understandable that investors routinely make trades without financial get the knowledge that many of these activities. Financial literacy significantly influences investment decisions toward a positive relationship. This is in consistent with research Rooij et al. (2011) where investor who has high financial literacy has a strong relationship with the investment decision.

Conclusion and Recommendations

Education and experience have little propensity to directly influence investment decisions, can be seen from the critical ratio (CR) 1.938 and 1.072. Education has an enormous proclivity in influencing financial literacy with CR 2.344. Experience has a tendency of small to influence financial literacy with CR -1.719. Financial literacy has a great tendency in influencing investment decisions with CR 3.432. Education and investment experience have no significant relationships directly at alpha 5% toward the investment decision. Financial literacy is found to strengthen the links between education and experience toward investment decisions. This is evident from the increasing value of the critical ratio. Financial literacy is very necessary in making investment decisions in addition to education and investing experience. The implication is that financial literacy is indispensable for the right investment decision. Further research can be done by expanding the scope of the national investor.

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WPLYW WYKSZTAŁCENIA I DOŚWIADCZENIA NA DECYZJĘ INWESTYCYJNĄ OKREŚLANĄ PRZEZ WIEDZĘ FINANSOWĄ

Streszczenie: Oczekuje się, że właściwa decyzja inwestycyjna zapewni oczekiwany zysk. Niniejsze badanie ma na celu określenie wpływu edukacji i doświadczenia na decyzję inwestycyjną określaną przez wiedzę finansową w przypadku inwestorów indywidualnych w Medan, Indonezja. Badanie wykorzystало pierwotne dane zebrane poprzez kwestionariusze badawcze, a próba składała się z 250 respondentów, którzy są aktywnymi inwestorami. Eksploracja danych przeprowadzona została za pomocą opisowej analizy statystycznej oraz modelowania równań strukturalnych. Wyniki pokazały, że inwestorzy o najwyższym poziomie wykształcenia są studentami studiów pierwszego stopnia 46,80%. Największy udział - 36,00% wszystkich inwestorów ma ponad trzy letnie doświadczenie w działaniu na rynkach finansowych. Doświadczenia edukacyjne i inwestycje nie mają znaczących relacji wspólnych i stanowią 5% decyzji inwestycyjnej. Okazuje się, że wiedza finansowa wykazuje silne więzi z wykształceniem i doświadczeniem w decyzjach inwestycyjnych. Wynika to z tego, że wiedza finansowa jest niezbędna do podjęcia właściwej decyzji inwestycyjnej.

Słowa kluczowe: edukacja, doświadczenie, wiedza finansowa, akcje, inwestycje, decyzja inwestycyjna

教育和經驗對投資決策的影響與金融資本調整

摘要：股票投資決策有望提供預期的利潤。這項研究旨在確定教育和經驗對投資決策的影響，具有適度的金融素養的個人投資者在棉蘭市。本研究通過問卷調查使用原始數據，樣本包括250名在印度尼西亞棉蘭市投資者的受訪者。使用描述性統計分析和結構方程建模的數據分析。結果表明，受教育水平最高的投資者為本科46.80%。投資投資股票的投

資者在3年以上投資股票的經驗是最多的36.00%。教育和投資經驗沒有直接關係到投資決定的α5%的重要關係。發現金融素養能夠加強教育和投資決策經驗之間的聯繫。這意味著，金融素養對於正確的投資決策是必不可少的。

關鍵詞：教育，經驗，金融素養，股票，投資，投資決策