



Effect of Information Technology, Investment Knowledge and Financial Literacy Millennial Generation Of Interest Invest in Capital Market

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ABSTRACT

This research was conducted with the intent and purpose is to determine the effect of Information Technology, investment knowledge, and financial literacy to the interest of the millennial generation invests in the stock market. This research is an associative research with a quantitative descriptive approach. This research was conducted in the city of Medan with a sample of 96 people. The model used in this study is multiple linear regression. The results of this study indicate that information technology affect investment interest. Furthermore, investment knowledge also influences investment interest. And lastly, financial literacy affects investment interest. The results of this study indicate that the more advanced the development of technology, the millennial generation increasingly understands financial literacy, and the millennial generation has investment knowledge, the more it will increase their interest in investing in the capital market. The increase investors the capital market is evidenced by the growing public interest investing shares. This interest arises due to the development of technology applied by securities companies. In addition, it can also be seen from investment knowledge and financial literacy. Increased understanding of investment by the millennial generation through webinars, capital market schools was able to provide an increase in investment interest.

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1. Introduction

It is known that the number of new investors added in 2020 has increased very significantly. When viewed from the data released by IDX, the growth in the number of stock investors at the end of 2020 has reached 1,695,268 Single Investor Identification (SID). This shows a growth of 53.4 percent of the total investors in 2019. The growth in the number of investors is also known to be millennial investors (www.idx.co.id).

Currently, the millennial generation has an interest in investing in shares in the capital market. Interest is different from talent, "interest arises from acquaintance with the environment or the result of interaction and learning with the environment". The interest in investing in shares of the millennial generation is the result of the emergence of a sense of interest in buying and selling shares or what is often referred to as stock trading. Things that can have an influence on interest in investing are technological advances, investment knowledge. This was stated by the State in his research which said that knowledge and technological advances had an influence on the millennial generation's interest in investing in the capital market[1].

The existence of technology makes it easier for humans to obtain information and explore knowledge. The development of technology in the capital market is marked by the emergence of securities trading facilities online or known as online trading. Facilities that Online trading can be accessed via mobile phones or other devices with internet network access will greatly facilitate potential investors, especially the millennial generation who are very fluent in the use of technology. However, in the development of technology that is so fast today, there are still many obstacles. One of the investors said that there are obstacles when trading, then this will result in mistakes in making decisions. One investor said that he had lost due to the slowness of the online trading system of one of the securities he used.



Speed and accuracy in transactions on the stock exchange are needed so that potential investors can quickly analyze and make decisions [1]. This Facility online trading makes it easy for individuals to make transactions anywhere and anytime. With the convenience due to technological developments, this will have a direct impact on increasing interest in investing in shares of the wider community, especially among the millennial generation who are very technologically savvy [2].

Investment knowledge is a view of the knowledge and knowledge that has been given, both to students at school, students on campus, and the general public who learn about investing in the capital market. With the knowledge of investing, of course, it is hoped that it can improve a person's ability to analyze and study the shares that will be purchased. As stated by the State in its research, it is stated that investment knowledge has a positive impact and has an influence on a millennial generation in starting to invest in stocks [1]. Of course, with a little knowledge, it will be easier for someone to make decisions in stock transactions. However, it is different from the study conducted by Nisa, which says that knowledge does not affect someone to be interested in investing in stocks. This is due to the lack of knowledge about investing so that they no longer consider trading stocks. Some of the millennials have the intention to transact shares in the capital market due to the limited pocket money they get from their parents. Thus, making millennials make transactions in stocks with the aim of getting additional pocket money. The results of this study are also supported by the results of previous studies which say that knowledge has an influence on investment interest [3].

In addition to information technology and investment knowledge, financial literacy is also very important in growing interest in investing. Understanding of financial literacy is important in investing. Individuals must have a good understanding of financial literacy so that their financial decisions have a clear direction [4]. Financial literacy is all about how individuals manage their money by using their knowledge of finance itself [5]. Financial literacy is needed in everyday life, because humans are economic creatures (*homo economicus*) who try to meet their daily needs and act rationally, one of which is related to financial behavior [6]. In addition to improving one's ability to make decisions, financial literacy can also increase self-confidence so that it can improve one's ability to easily access financial services.

A person's level of understanding or literacy towards stock investment will encourage that person to have a positive attitude towards a stock investment product so that it affects a person's interest in investing in shares in the capital market. By having a positive attitude towards stock investment, you will have the view that stock investment is a profitable investment instrument so as to encourage interest in investing in stocks. From the results of a survey conducted by OJK in 2016, the financial literacy index in the capital market sector was only 4.4 percent and the financial inclusion index in the capital market sector was only 1.25 percent. The Financial Services Authority stated that based on the survey results in 2019, the level of literacy and inclusion of the capital market industry has increased. The survey results in 2019 stated that financial literacy and inclusion in the capital market were still far from expectations, especially from other sectors, which was around 4.9 percent for the literacy level and 1.55 percent for the inclusion level in the capital market sector. The choice of stock investment must be based on knowledge or literacy about investment, especially stock investment. For this reason, education is very necessary in increasing financial literacy, especially capital market knowledge in the community, so that it can foster interest in investing in shares in the community.

2. Method

This research is quantitative research. Quantitative research is research that uses data in the form of numbers in terms of drawing conclusions. This study uses a questionnaire/questionnaire instrument which is expected to obtain data that can be used to support research. The object of this research is the millennial generation in the city of Medan with an unknown population and can be said to be in the infinite category. Infinite population is a population that has a data source that cannot be defined quantitatively. Therefore, the population area is infinite and can only be explained qualitatively [14]. The sampling technique used is non-probability sampling. Non-probability sampling is a technique that does not provide equal opportunities/opportunities for each element or member of the population to be selected as a sample. In this study using purposive sampling. Purposive sampling is a sampling technique with certain considerations [14]. The considerations in this study are as follows:

1. Respondents are people in the city of Medan.
2. Respondents already have SID (Single Investor Identification)
3. Respondents are investors who have an age range of 15-30 years.

Because the population is unknown, the formula used to determine the number of samples is [15]:

$$n = Z^2 / 4(\text{Moe})^2$$

Where:

- Z : The level of confidence required in the sample
- Moe : The maximum level of error that can be tolerated
- n : Number of samples

The confidence level used is 95% where the Z value is 1.96 and Moe is 0.1, then the sample used in this study is:

$$n = 1.96^2 / 4(0,1)^2$$

$$n = 96.04$$

The data collection method used in this study was to distribute questionnaires to respondents using a Likert scale. In this study, data analysis methods were used, descriptive statistical analysis, data quality tests, validity tests and reliability tests. To test the hypothesis in this study, analytical tools were used, partial test, simultaneous test, and coefficient of determination. This research model is a multiple linear regression research.

2.1 Conceptual Framework of

This research was conducted using 3 independent variables, information technology, investment knowledge, and financial literacy. While the dependent variable is interest in investing. This research model can be seen through the following conceptual framework:

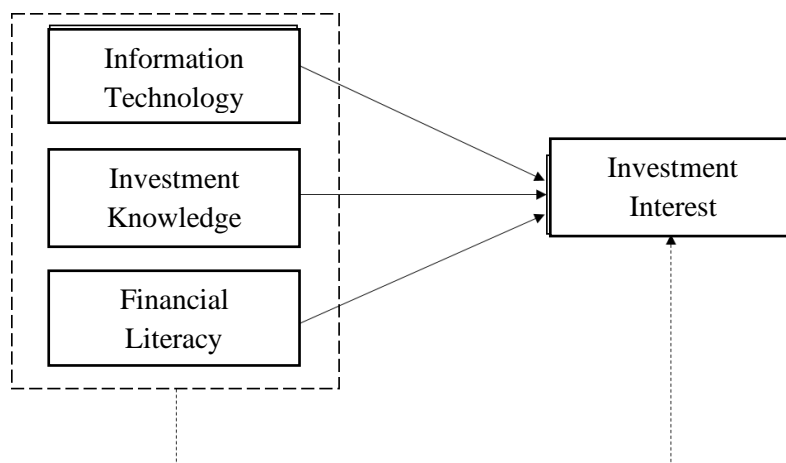


Figure 1. Research Concept Framework

Based on Figure 1, it can be determined that the hypothesis in this study is as follows:

- H₁: information technology have a positive and significant effect on investment interest.
- H₂: investment knowledge has a positive and significant effect on investment interest.
- H₃: financial literacy has a positive and significant effect on investment interest.
- H₄: information technology, investment knowledge and financial literacy have a positive and significant effect on investment interest.

3. Result and Discussion

3.1. Validity of Research Instruments

To obtain accurate information from respondents, researchers distributed questionnaires to 96 selected respondents. In distributing the questionnaires, the researchers distributed them using a google form to make it easier to collect data from respondents. Of the 96 questionnaires that have been sent, all questionnaires have been completely filled out by the respondents. The results of the questionnaire were then tested for validity.

The validity of an instrument shows the level of accuracy of an instrument related to measuring what should be measured. To find out valid or whether an instrument item is not to look at the probability value of the coefficient correlation. In this study, to measure the variable of information technology, it is measured by two indicators, namely usefulness and effectiveness which shows that the instrument of the indicator is

greater than r-table 0,206 valid. Furthermore, the investment knowledge variable is measured by four indicators and shows that all instruments greater than r-table 0,206 are valid. Furthermore, the financial literacy variable is measured by four indicators and shows that all instruments are valid. And for the investment interest variable, it is measured by four indicators and shows that all of these instruments are greater than r-table 0,206 valid.

3.2. Results of Classical Assumption Model

Test Multicollinearity test is to test whether in the regression model there is a correlation between the independent variables. If the tolerance value is higher than 0,10 or VIF is smaller than 10, it can be concluded that there is multicollinearity.

TABLE 1.
MULTICOLLINEARITY TEST RESULTS

Variable	Collinearity Statistics	
	Tolerance	VIF
Information Technology	0,376	2,661
Investment Knowledge	0,144	6,947
Financial Literacy	0,205	4,877

Based on the data in table 1, it can be seen that the tolerance values for information technology variables, investment knowledge and financial literacy are above the fixed values, namely 0,1 and the VIF value of all independent variables is smaller than the fixed value of 10. Therefore, the model in this study says that all independent variables do not experience multicollinearity problems. The normality test aims to determinewhether the confounding variable or residual has a normal distribution.

TABLE 2
NORMALITY TEST RESULTS

One-Sample Kolmogorov-Smirnov Test		
Unstandardized Residual		
N		96
Normal Parameters ^{a,b}	Mean	0,0000000
	Std. Deviation	0,83816439
	Absolute	0,088
Most Extreme Differences	Positive	0,088
	Negative	-0,071
	Kolmogorov-Smirnov Z	0,859
Asymp. Sig. (2-tailed)		0,451
a. Test distribution is Normal.		
b. Calculated from data.		

From the results of the Kolmogorov Smirnov test, it is 0,859 and is significant at 0,451, which is greater than 0,05, thus the residuals are normally distributed.

TABLE 3
TEST RESULTS GLEJSER

Variable	unstandardizedCoefficients		T	Sig
	B	Std.Error		
Technology Advancement	-0,064	0,58	-1,094	0,277
Knowledge Investment	0,067	0,046	1,464	0,147
Financial Literacy	-0,36	0,036	-1,021	0,310

Based on table 3 it can be seen that the independent variables, information technology, investment knowledge and financial literacy have a significant value greater than 0,05 so it can be concluded that the regression model does not occur heteroscedasticity. Because the model in this study already meets the classical assumptions, it will be continued with multiple linear regression analysis. Multiple linear regression analysis was used to test the effect of more than one independent variable on the dependent variable.

TABLE 4.
T-STATISTICS

Variable	Unstandardized Coefficients		T	Sig
	B	StdError		
Information Technology	-1,063	0,094	-11,323	0,000
Investment Knowledge	0,851	0,074	11,495	0,000
Financial Literacy	0,628	0,058	10,900	0,000

Based on data from 96 respondents, after testing using SPSS 21, then the multiple linear regression equation is as follows: **Investment Interest = 1,604 - 1,063 Information Technology + 0,851 Investment Knowledge + 0,628 Financial Literacy**

3.3. Hypothesis Test Results

Partial hypothesis testing is done by using the t-test, which is to test the effect partial of the independent variables on the dependent variable. Assuming that other variables are held constant. Based on the partial test results in table 4 it can be seen that the test results for each independent variable are as follows:

- The test results for the information technology variable show the t-value of $-11,323 > 1,986$ t-table with a significant value of $0,000 < 0,05$. Then the hypothesis is accepted, meaning that the information technology variable has a significant effect on investment interest.
- The test results for the investment knowledge variable show the t-value of $11,495 > 1,986$ t-table with a significant value of $0,000 < 0,05$. Then the hypothesis is accepted, meaning that the investment knowledge variable has a significant effect on investment interest.
- The test results for the financial literacy variable show the t-value of $10,900 > 1,986$ t-table with a significant value of $0,000 < 0,05$. Then the hypothesis is accepted, meaning that the financial literacy variable has a significant effect on investment interest. The F test is used to test the simultaneous effect of the independent variables on the dependent variable.

TABLE 5
SIMULTANEOUS TEST (F-TEST)

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1197,761	3	399,254	550,370	0,000 ^b
Residual	66,739	92	725		
Total	1264,500	95			

a. Dependent Variable: Investment Interest

b. Predictors: (Constant), Information Technology, Investment Knowledge, Financial Literacy

Based on the simultaneous test results presented in table 5, it can be seen that the F value is calculated $550,370 > F$ table 2,70 and the significance is $0,00 < 0,05$. Then the hypothesis is accepted. So it can be concluded that the three independent variables, information technology, investment knowledge and financial literacy simultaneously have a significant effect on investment interest.

3.4. Coefficient of Determination

The coefficient of determination (R²) essentially measures how far the ability models to explain variations in the dependent variable. The value of the coefficient of determination is between zero and one. R² small means the ability of variables independent in explaining the variation is limited dependent variables. A value close to one means that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

TABLE 6
COEFFICIENT OF DETERMINATION (R2)

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,973 ^a	0,947	0,945	0,852	2,414

a. Predictors: (Constant), Information Technology, Investment Knowledge, Financial Literacy



Literacy

b. Dependent Variable: Investment Interest

Based on the data in table 6 it can be seen that the coefficient of determination (adjusted R^2) obtained is 0,945. This shows that the variables of information technology, investment knowledge and financial literacy are able to explain the interest in investing by 94,5%, while the remaining 5,5% is influenced by other variables not examined in this study.

3.5 Discussion

Information technology is a method used in conducting transactions in the capital market. Advances in information technology will make it easier for investors to carry out transactions in the capital market. As information technology develops, it will also be followed by ease of accessing available applications for trading. Trading in question is the activity of buying and selling shares using applications provided by securities companies in supporting investors to transact in the capital market.

In this study, information technology is measured by two indicators, usefulness and effectiveness. The usefulness indicator is the level of usefulness of the trading application provided by securities to investors. In this case the intended application is one that can be used in various electronic devices such as computers, smartphones, and IOS. Applications provided by securities companies must have great benefits in supporting investors to trade stocks. The features contained in the application must be able to support investors in making decisions, such as the availability of chart analysis features. The next thing is also very important, the effectiveness of the application that is made to be able to support investors in trading. This means that investors can easily make transactions wherever they are without having to use a computer but can also be used using a smartphone or IOS. It is very important that information technology have an influence in terms of accelerating investors in conducting stock transactions.

The results of this study indicate that information technology has an effect on interest in investing in stocks. Advances in technology bring very good changes in the future, especially in the capital market. The results of this study support the research that has been done previously, which states that information technology affect the interest in investing in stocks [1]. This is contradicted by the results of research that has also been carried out with the same variable which states that information technology have no effect on interest in investing in stocks [2]. The results of the study suggest that the thing that can have an influence on interest in investing is not information technology, but through capital market education which is increasingly carried out, it will provide interest in investing.

Investment knowledge is very important for potential investors, especially millennials. Investment knowledge is obtained in various ways that can be learned. Starting from reading literature, participating in seminars or workshops related to investment, as well as participating in the capital market school (SPM) activities which are currently still actively promoted by the Indonesia Stock Exchange (IDX). The capital market school activities provide positive education about the capital market in Indonesia and there can also be learned the basics of starting to invest. This research was conducted in the city of Medan, especially the millennial generation who invest in stocks. This study also involved 96 young investors. Most of these young investors have also joined several capital market study groups which are usually called KSPM (capital market study group). Through KSPM these young investors can interact and exchange information and even learn together. So that through this group, many young investors are equipped with broader investment knowledge.

The results of this study indicate that investment knowledge has a significant effect on interest in investing in stocks. The results of this study are research that focuses on the behavior of the millennial generation related to interest in investing in stocks. Investment knowledge is measured by four indicators including knowing the terms capital market, knowing the types of capital market investment, understanding the level of profit, and understanding the level of risk. The results of this study indicate that an indicator that strengthens investment knowledge is understanding the level of profit and the level of risk. The results of this study indicate that in investing, especially stocks, it is very important to understand the benefits and also understand the risks. Some investors state that the higher the level of profit generated, the greater the risk. The results of this study state the importance of investment knowledge in terms of understanding investment risk. The results of this study support previous research which says that investment knowledge has an effect on investment interest [16]. To strengthen these results, the researcher also explores several related articles similar to this study which state that investment knowledge has an effect on investment interest [11].

Financial literacy is an activity that has the aim of providing understanding and confidence to the public so that they are able to manage finances. Financial literacy can be said as a person's obligation not to experience mistakes in his finances. In this study, financial literacy was measured by four indicators including financial knowledge, knowledge about savings and loans, understanding insurance, and understanding investment. The four indicators that provide the most measure of financial literacy are financial knowledge. The results of this study indicate that investors understand the importance of knowledge about finance. In deciding to invest, investors are equipped with knowledge of existing financial products and their benefits. To strengthen this, it can also be stated in this study that in addition to financial knowledge, knowledge of the benefits of savings and loans is also followed. Investors state that knowledge of future savings is very important in preparing finances for the future. This can reinforce that the higher investors' understanding of the benefits of future savings will increase investment interest.

The results of this study indicate that financial literacy has an influence on interest in investing in stocks. The more a person understands about investing, the more interest that person will be to invest in stocks because this is a person's level of confidence that managing finances at this time will provide benefits in the future. The results of this study support the research that has been done by previous researchers which stated that financial literacy has a significant effect on interest in investing in stocks [5]. This study also supports previous research which states that the higher the level of financial literacy, the more interest in investing, and has a significant effect [17].

Information technology, investment knowledge, and financial literacy have a significant influence on interest in investing in stocks. The results of this study indicate that it is necessary for an investor, especially the millennial generation, to understand and explore investment knowledge and its benefits. Likewise, information technology have a significant effect on investment interest. This means that if information technology is increasingly developed, seen from the usefulness of the technology and also the effectiveness of the use of the technology, it certainly provides convenience for investors in conducting stock transaction activities in the capital market. Furthermore, financial literacy also needs to be improved, because the results of this study prove that financial literacy is also one of the variables that can provide a significant influence on investment interest. This means that if a millennial investor understands financial products, understands savings and loans, understands insurance, understands also about investment, this will trigger confidence so that interest in investing will be even greater.

The results of this study support previous research which states that information technology affect investment interest [1], financial literacy affects investment interest [5], and investment knowledge affects investment interest [16].

4. Conclusion

The increase investors the capital market is evidenced by the growing public interest investing shares. This interest arises due to the development of technology applied by securities companies. In addition, it can also be seen from investment knowledge and financial literacy. Increased understanding of investment by the millennial generation through webinars, capital market schools was able to provide an increase in investment interest. The research results can be summarized as follows: Information technology has a significant effect on the millennial generation's interest in investing in the capital market. Investment knowledge has a significant effect on the millennial generation's interest in investing in the capital market. Financial literacy has a significant effect on the millennial generation's interest in investing in the capital market. Information technology, investment knowledge and financial literacy have a significant effect on the millennial generation's interest in investing in the capital market.

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