

Gender and Millennials in Indonesian Capital Market

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ABSTRACT

The number of millennial investors in the Indonesia Stock Exchange (IDX) has increased significantly in the last three years. This phenomenon shows the existence of investment intention among the millennial generations, which is interesting because since the monetary crisis of 1998, there is such a trauma in most Indonesian to invest in the capital market. Now, the millennial generations show another signal that they can forget the trauma. It is interesting to know what kind of factors that influence the millennials' investment intention in the capital market. This study attempted to answer this question. This research proposed three factors, namely financial attitude, risk aversion, and locus of control, that influence the millennials' investment intention, along with the hypothesis developments. The sample consist of the millennial generation that was divided into three groups, namely male, female, and whole sample. SEM was employed to test the three hypotheses by using Smart PLS. The results show that only financial attitude in the female group sample that does not have a significant effect on the millennials' investment intention.

Keywords: *millennial, investment, intention, capital market*

1. INTRODUCTION

Millennials are usually stereotyped as being extravagant, unable to manage their finance properly, like to shop online, travel, go on culinary tours, drink coffee, and change gadgets. However, the GoBankingRates survey [1] shows that this group also thinks about investing, but they don't have the ability to do so.

The survey was confirmed by The Harris Poll [2], which shows that 92% of millennials already like to save. Even one-third of them have invested outside the pension plans that will be prepared. About 70% of millennials admit that they already know how to invest.

In Indonesia, data from The Indonesia Capital Market Institute (TICMI) found something more surprising. As much as 61.76% of the 168 millennial respondents have implemented financial management by investing. The investment choice for the millennial generation is 54.41% allocated in the capital market, and the rest is in banking products and the real sector. Among the 54.41% investment in the capital market, the most popular investment instrument was stock, that reached 80.88%. Next, the choices were 16.18% in mutual funds, 1.47% in bonds, and finally, 1.47% in other investment products. Based on this data, it can be seen that the investment intention in stocks among millennials are high.

SID (Single Investor Identification) data from the Indonesian Central Securities Depository (KSEI) shows, that until the end of 2018, the millennial generation, mostly students aged 21-30 years, dominated as real investors in the Indonesian capital market, reaching 39.72% of total investors. Meanwhile, investors aged 31-40 years controlled around 25.34%, investors aged 41-50 years had

a share of 18.69%, investors aged 51-60 years had a share of 10.69%, and investors over 60 years old contributed 5.56% of total investors.

What is amazing is that the number of millennial investors in 2018 had increased significantly. In 2017, the percentage of millennial investors only reached 26.2% or approximately 288,000 of the total capital market investors, which amounted to 1.1 million investors. For 2018, the number of millennial investors increased to 635,000 people, as a percentage it also increased to 39.72% based on data from the Indonesian Central Securities Depository (KSEI). Observing this trend, the question arises: What exactly are the factors that cause millennials to invest in the capital market? From previous research, three important factors can be considered: First, the millennial generation has made it a habit to be able to control their financial attitudes since they were young, although most millennials do not have many assets. Second, the millennial generation can still take the risks, because their adrenaline dares to face risks [4] [5] [6]. As young people, they also have more opportunities to try. This is impossible for people of retirement age, because it is impossible to wait for another 10 or 20 years for the stock market to revive.

Third, locus of control. To decide on making an investment, of course, one needs to consider many things that can be influenced by the internal and external locus of control. Internal locus of control factors, for example, is a person who can make decisions based on the encouragement from within. External locus of control can be exemplified such as making decisions based on opportunities, gaining benefits, and the behavior of others. Good stock market performance, for example, makes millennials try to do something profitable [7] [8] [9].

1.1. Related Work

As a grand theory of research on investment intentions in the capital market among millennials is the theory of reasoned of action (TRA) initiated by Fishbein & Ajzen [10], which explains that one's intention to behave is shaped by two main factors, namely attitude toward the behavior and subjective norms. This theory was further developed by Ajzen [11] by adding one more factor, namely perceived behavioral control, later known as the Theory of Planned Behavior (TPB). Past research has shown that the domain of specific constructs can be included in TPB in order to increase the predictive power [12].

Based on the TPB, the factor that most influences individual behavior is the individual's intention. According to Shaw et al [13], the TPB model has been widely used in studies related to behavioral domains. Meanwhile, the intention to behave is influenced by attitudes, subjective norms, and control behavior, which are the basis for the theory of financial management behavior, that is widely used as a base for research on millennial intentions to invest in the capital market [14], as many other researchers did before. East [15], for instance, used TPB to determine the investment intention in private British industries and found that the intention is strongly affected by factors like the suggestions from friends and the availability of funds. Phan & Zhou [16], observed that psychological factors like overconfidence, optimism, herd behavior, and risk attitude are more important determinants of the investment intention. Gopi & Ramayah [17] showed that there is a positive relationship among the attitude, subjective norms and perceived behavioral control, in the case of intention to trade online.

The investment intention research was first conducted by East [15] by applying the TPB. Alleyne & Broome [18] retested the study by adding the independent variable of risk propensity, which refers to the research by Sitkin & Weigart [19]. Ali et al [20] and Ali [21] reinforced the findings of Alleyne & Broome [18], namely that attitudes and perceived behavioral control are directly and positively related to the intention to invest in Islamic mutual funds. Furthermore, many studies have examined the factors that influence the investment intention.

Research by Sondari & Sudarsono [22] investigated the effect of attitudes to investment and subjective norms on investment intention. Cucinelli et al [23], implemented the investment intention to consumer good stocks. Then, Amin [24] linked this investment intention with religiosity. Vuk et al [25] began examining the relationship between the investment intention and risk. In addition, Akhtar & Das [26] started to include a mediating variable in predicting the investment intention. The addition of an independent variable in form of perceived risk attitudes was carried out in Ramanathan & Bose's (2018) research [27]. The variable length of time of investment distinguishes Sadiq & Khan's [28] research from previous studies. Wouwe [29] continued his research on investment intention by including financial knowledge, financial ability, and financial resources variables.

1.1.1. Financial Attitudes and Investment Intention

The relationship between financial attitude and investment intention has been carried out quite a lot. Sondari & Sudarsono [22], for example, found a positive and significant relationship between financial attitudes and investment intention. Alleyne & Broome [18], found a positive and significant relationship between financial attitudes and investment intention, in Barbados. Similar results were also found by Akhtar & Das [26] in India. Most recently, Wouwe [29], conducted an online survey toward 68 people to test the relationship between financial attitude and investment intention. The results show that there is a positive and significant relationship between financial attitudes on investment intention. Base on these findings, the first hypothesis was developed as follow:

H₁: Financial attitude has a positive effect on investment intention.

1.1.2. Risk Aversion and Investment Intention

Pinjisakikool [30] stated that, whether the risk-related attitudes are area-specific or general, is a controversial issue. Sanou et al. [31] said that the risk-related attitudes are area-specific, thus the measurement is easier and more appropriate. Individuals with high risk-taking and high risky investment intention tend to move toward stocks and derivatives. Otherwise, people with low risk-taking and low risky investment intentions are expected to prefer bonds and bank deposits.

Base on those findings, some researchers had investigated the relationship between risk attitude and investment intention, and the result shows that there is a significant relationship between investment and risk-attitude [32] [33]. Similarly, many studies found a significant and positive relationship between high-risk tolerance and risky-asset acquisition [34] [35] [36]. More specifically, Aren & Aydemir [5] and Aydemir & Aren [37] found the relationship between risk aversion and investment intention, which is negative and significant. Based on these findings, the second hypothesis was developed as follow:

H₂: Risk Aversion has a negative effect on investment intention.

1.1.3. Locus of Control and Investment Intention

Rotter [38] firstly proposed that the effect of reinforced behavior can show the differences among individuals, regarding how far the individuals see what they get from their behavior. Therefore, if people consider the award they receive is the result of their own actions, this condition is said to be an internal locus of control (ILOC). If they perceive the rewards they receive as a result of outside forces, such as luck or fate, this condition is said to be an external locus of control (ELOC).

Starting from this Rotter's proposal, the locus of control variable is hypothesized to influence a person's intention to take action, including the intention to invest. Aydemir & Aren [37], for example, found a positive and significant relationship between locus of control and investment intention among several exchanges in Turkey. Abdillah et al. [39] also found this positive and significant relationship in the Indonesia Stock Exchange.

Research by Aydemir & Aren [37] shows that locus of control has a positive effect on investment intention. Furthermore, Brounen et al [40] found that locus of control and investment intention has a positive and significant relationship. Research by Perry & Morris [41] also provides an evidence that locus of control has a positive and significant effect on investment intentions.

Moreover, strong correlations have been found between these two variables by Plunkett & Buehner [42]. The significant impact of locus of control on investment intention was also reported by Christelis et al. [43]. Based on these findings, the third hypothesis was developed as follow:

H₃: Locus of Control has a positive effect on investment intention.

Based on these three hypotheses, we constructed the following mathematical model:

$$I_i = \alpha + \beta_1 Fa + \beta_2 Ra + \beta_3 Lc + \varepsilon$$

Description:

I_i : Investment intention
 Fa : Financial attitude
 Ra : Risk aversion
 Lc : Locus of control

This model is used to predict all three samples: male, female and the whole sample.

1.2. Our Contribution

Theoretically, this research contributes to the confirmation of three factors that influence the investment intention, namely financial attitude, risk aversion, and locus of control, which have been widely studied in various countries. The confirmation is that these three factors apply to Indonesia's millennial generation. With this contribution, it means that this research contributes in form of strengthening the existing theories.

Empirically, the contribution of this research is to open up the insights among millennials that investment in the Indonesian capital market is no longer a trauma, as experienced by previous generations. With a good financial attitude, while still paying attention to their ability to take the risks and considering their personal and environmental conditions, millennials can look at the capital market as an alternative for their investment in the future.

This article will be presented in sequence: introduction, related work, background, result, discussion, and conclusion.

2. BACKGROUND

2.1. Sample and Data

This study uses a conclusive design by taking a causal type, namely analyzing the causal relationship between the dependent-independent variables. The research sample was acquired by using a purposive-sampling method. The criteria used as samples are people who are classified as millennials according to Elwood Carlson's definition [44], namely people who were born between the year 1983 and 2001.

Data was collected by distributing the questionnaires using Google Form, making it possible to reach all millennials. To ensure that the data collected meets the sample criteria, the respondents were asked to choose their year of birth. If the recipient's birth year is between 1983 and 2001, then they can continue filling out the questionnaire. If their birth year is outside that range, then they were not allowed to continue filling out the questionnaire. Questionnaires were distributed from 28 October 2019 to 8 November 2019 through social media such as Instagram, Line, and Whatsapp. The number of questionnaires distributed was 500, while those who returned were 190. Thus, the response-rate was 38%.

2.2. Variables and Measurements

The dependent variable in this study is investment intention, which is defined as an intention to commit to using a certain amount of money for stock investment. Furthermore, the independent variables consist of financial attitude, risk aversion, and locus of control.

Financial attitude is defined as behavior in treating finances. Then, risk aversion is defined as a person's degree of risk aversion. Finally, the locus of control variable is defined as the view of the events faced due to one's own abilities or external factors.

All variables were measured using a 5-point Likert scale in answering the questions contained in the questionnaire. Value 1 for the answer of strongly disagree, 2 for the answer of disagree, 3 for the answer of quite agree, 4 for the answer of agree, and 5 for the answer of strongly agree.

2.3. Data Analysis Technique

This study used the Structural Equation Modeling (SEM) to test the research hypotheses regarding the direct effects of the independent variables on the dependent variable. Hair et al. [45] stated that SEM could be considered as a particular combination of both interdependence and dependence techniques as it grounds on factor analysis and multiple regression analysis. The software used was Smart PLS

(Partial Least Square). This software was used, because the object being measured is related to behavior.

Goodness-of-Fit (GoF) indices of the final measurement model proposed that the posited model fits with the observed data. Significant factor loadings indicated convergent reliability at the item-level. Besides, consistent with the suggestions of Hair et al. [45], the standardized factor loadings were above 0.50 and 0.70 largely, providing support for convergent validity. The final analysis was to test the hypothesis in order to determine whether the hypothesis could be proven.

3. RESULTS

This study aimed to determine the intention to invest in the capital market investment instruments among the millennial group and also to detect the factors that determine it. To make it more meaningful and richer, this study discussed it into three parts based on gender, namely male, female, and the whole sample.

Before going to the main analysis, which is proving the hypothesis, it is better to present some conditions that should be met such as validity, reliability, and GoF. Two types of validity need to be fulfilled, namely convergent validity and discriminant validity. For convergent validity, the requirements that must be met are Average Variance Extracted (AVE) > 0.5. This requirement has been fulfilled, due to the AVE of all variables is more than 0.5. For discriminant validity, the conditions can be met if the value of the cross-loadings of a variable is the largest in the variable it forms compared to those of other variables. This requirement has also been met.

Furthermore, for reliability testing, the Cronbach's Alpha parameter was used. A variable will meet the reliability criteria if the Cronbach's Alpha value is > 0.7. All of the variables in this study showed Cronbach's Alpha greater than 0.7. This means that all variables are reliable.

The Goodness-of-Fit Model test is conducted to determine the overall model fit. The GoF criteria are, small if the value is > 0.1, medium if the value is > 0.25, and large if the value is > 0.36. The GoF value of this study is > 0.36, so it is included in the large category.

Now, it is the turn to present the results of hypothesis testing. The first hypothesis is that financial attitude has a positive effect on investment intention. Based on the results of the hypothesis test as presented in Table 1, the estimated value for this first hypothesis is 0.19 for the male sample and 0.04 for the female sample. Meanwhile, for the whole sample, the estimated value is 0.25. These estimates indicate how much influence the variables of financial attitude, risk aversion, and locus of control have on investment intention. Then, from the level of significance, the male sample and the overall sample have a significance value below 0.01. In other words, the results of the hypothesis test for the male sample and overall sample have high confidence to accept it. Conversely, for a sample of female, it was not significant, meaning that the first hypothesis for this sample in the female category was not proven.

For the second hypothesis, risk aversion has a negative effect on investment intention. From Table 1, it can be seen that all samples show a negative estimate value. For male and female samples, the estimated values are -0.10 and -0.26. Meanwhile, for the whole sample, the estimated value is -0.11. For this risk aversion effect, all samples are significant. The highest level of significance was in the female sample, namely $p < 0.01$. Meanwhile, the male sample and the overall sample have p -value < 0.05. Thus, the risk aversion variable has a significant effect among all samples. These results indicate that the second hypothesis could be proven.

For the third hypothesis, locus of control has a positive effect on investment intention. The hypothesis-test results show the positive value of the estimate. This means that it is already in accordance with the hypothesis. However, to determine whether the third hypothesis is proven or not, the level of significance must also be considered. The estimated value of this locus of control variable for male and female samples have the same number, which is 0.65. For the whole sample, this estimated value is slightly lower than that of the male and female samples, which is 0.63. For the level of significance, all samples show the same value, which is below 0.01.

Table 1 The Results of Hypothesis-Testing

Structural Paths	Estimates		
	Male	Female	Whole Sample
Financial Attitude → Investment Intention	0.19 (3.32)***	0.04 (0.70)	0,25 (4.16)***
Risk Aversion → Investment Intention	-0.10 (2.22)**	-0.26 (3.27)***	-0,11 (2.26)**
Locus of Control → Investment Intention	0.65 (11.55)***	0.65 (9.17)***	0,63 (11.41)***

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

Source: Data Analysis Results

4. DISCUSSIONS

The investment intention among the millennial generation in the capital market can be influenced quite well by financial attitude, risk aversion, and locus of control in this study. This can be proven by the acceptance of almost all hypotheses. This means that it is in line with the results of previous studies. There is only one hypothesis that was not proven, namely the first hypothesis for the sample of female (see Table 2). For this sample, financial attitude does not significantly affect the investment intention, although it still has a positive effect. This shows that gender plays a role in influencing investment intention. It is proven that the financial attitude of male sample group has a significant effect, while in the female sample group it does not significantly affect investment intention. However, this phenomenon only happens to financial attitude variable.

4.1. The Effect of Financial Attitudes on Investment Intention

The variable of financial attitude seems to have a small effect on investment intention. Even for the female sample group, the effect is the smallest, besides being insignificant. This is because not everyone can realize to use the money they have to invest. Besides, everyone's financial management method also varies. Some have extra money, then it is squandered, while others allocate their money to invest.

The latter statement can be seen in the indicator measuring financial attitude in form of: "I feel that saving is an important thing" gets the highest score. This result indicates that respondents know the importance of financial allocation, because saving is a financial attitude in accordance with that financial allocation. The financial attitude of saving can be interpreted as investing in the capital market, like buying stocks. So, it can be concluded that the higher one's awareness of the importance of saving is, the higher one's intention to invest in stock investment instruments in the capital market will be.

4.2. The Effect of Risk Aversion on Investment Intention

Similar to the financial attitude variable, the risk aversion variable does not have a big influence on investment intention. However, for this variable, the hypothesis for all

sample groups could be proven, although only one hypothesis has the lowest significance value, namely for the female sample group with a *p*-value below 0.01. For the other two sample groups, the *p*-values are below 0.05. Thus, the sample group of female has a strong interest in risk-related issues.

The effect of risk on investment intention is negative, as hypothesized by several previous studies [27] [32]. As stated by Pinjisakikool [30], the risk is still a controversial issue in the investment literature. Therefore, the level of investors' risk aversion will affect their investment choices. For millennials who are still young, they may have a low-risk aversion, so they have the intention to invest in capital markets that have high risks. In general, most people have a high-risk aversion, so that more people are afraid to take the risks. For this group, investment intention in the capital market is low. This condition can be seen from the indicator measuring the risk aversion variable: "I prefer the safe way than sorry", getting the highest score.

4.3. The Effect of Locus of Control on Investment Intention

The locus of control variable has the biggest influence on investment intention. Besides, the level of significance also reached the lowest value for all sample groups, with a *p*-values below 0.01. Thus, while the hypothesis for all sample groups could be proven, the effect of this locus of control is the most convincing.

The proof of this third hypothesis provides the information that personal abilities and also the external environment determine investment intention in the capital market. The external environment plays an important role, such as being invited by friends and easy-access to the information through increasingly sophisticated gadgets and the internet with greater bandwidth and speed. This makes it easier for millennials to monitor investment developments in the capital market through online system, and to learn investment from various services by using the internet. This fact is obtained from the measurement indicator for the locus of control variable: "I can do anything according to certain situations and conditions" that got the highest score. This result indicates that the respondents know that the events that occur to them, including the intention to invest, are caused by the influence of the outside environment. The result of this study is in accordance with those of previous studies including the study conducted by Aydemir & Aren [37].

Table 2 The Summary of Hypothesis-Test Results

Hypothesis	Hypothesis Statement	Result
	<i>Male Sample</i>	
H ₁	Financial Attitude has a positive effect on Investment Intention	Accepted
H ₂	Risk Aversion has a positive effect on Investment Intention	Accepted

H ₃	Locus of Control has a positive effect on Investment Intention	Accepted
<i>Female Sample</i>		
H ₁	Financial Attitude has a positive effect on Investment Intention	Not Accepted
H ₂	Risk Aversion has a positive effect on Investment Intention	Accepted
H ₃	Locus of Control has a positive effect on Investment Intention	Accepted
<i>Whole Sample</i>		
H ₁	Financial Attitudes have a positive effect on Investment Intention	Accepted
H ₂	Risk Aversion has a positive effect on Investment Intentions	Accepted
H ₃	Locus of Control has a positive effect on Investment Intention	Accepted

Source: Data Analysis Results

5. CONCLUSION

This research attempted to explain the phenomenon of the increasing interest among the millennial generation to invest in the capital market, by questioning what factors that influence their interest in investing. Based on previous research, three factors were found, namely financial attitude, risk aversion, and locus of control.

From the results of hypothesis testing, this study proved that these three factors affect the investment intention. Thus, in terms of the proposed hypothesis, this study ensures that all hypotheses could be accepted, except for the sample group of females.

For the female sample, the unproven hypothesis is the effect of financial attitude on investment intention. Although this variable of attitude affects the investment intention, it was not significant. Thus, it is interesting to conduct further research.

The next interesting note is that related to risk aversion. The millennial generation still follows the risk-theory, which tends to avoid the risk. However, in this study, it can still be shown that the young millennial generation is brave enough to take the risks by intending to invest in the capital market. This is related to their young age, so they still have the opportunity to wait for the stock market to rebound when being faced with the risk of a decline in stock prices.

Based on these findings, it can be noted that the managerial implications are, the high intention to invest among millennials opens up the opportunities for fund-investment companies and stock-brokerage companies to market their products towards these young investors.

However, it needs to be understood, that the results of this study also have limitations, which only involve three independent variables. This is a must-watch, because the factors that influence the investment intention are not limited only to these three factors. although we realize that these three factors have the greatest influence and are most

often used in research on measuring the investment intention.

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