Analysis of The Influence of Social Demographics, Financial Knowledge, and Financial Attitude on Investment Decisions (Case Study on Employees of the Republic of Indonesia Financial Audit Agency)

Susi Megawati, Eko Sembodo, Wardojo
Universitas Respati Indonesia
susimegawati.77@gmail.com

Abstract

Behavioral finance is a science that studies how humans respond and react to existing information which is then used to make investment decisions by paying attention to the risks inherent therein. The aim of this research is to find out how socio-demographic factors, financial literacy and financial attitude influence investment decisions among employees of the Supreme Audit Agency. The research method uses a quantitative approach with a questionnaire instrument, purposive sampling data collection techniques with 100 respondents, and Structural Equation Modeling (SEM) analysis methods. Based on the results of this research, it confirms: First, Social Demographic factors have a positive influence on investment decisions. Statistical test results show that 78% of investment decisions are influenced by socio-demographic factors. From several indicator variables studied, it shows that the income factor is an important factor in the socio-demographic variables, then the age maturity and education factors. Second, financial knowledge (financial literacy) has a positive and significant influence on investment decisions. Statistical test results show that 85% of investment decisions are influenced by financial knowledge. In this case, the investment knowledge factor is the strongest factor of financial knowledge for investment decision purposes. It is clear that financial attitude has a positive effect on investment decisions. Statistical test results show that 63% of investment decisions are influenced by the respondent's financial attitude. In this case, the cognitive aspect makes an important contribution to financial attitudes. This means that the individual's beliefs or attitudes towards finances are quite good. Then the behavioral aspect in applying finance and finally the affective aspect or the individual's emotional attitude towards finance.

Keywords: Social Demographics, Financial Knowledge, Financial Attitudes, Investment Decisions.

INTRODUCTION

In the last few decades, the field of financial science has developed rapidly based on the assumption that investors act rationally when making decisions. In practice, it turns out that this is not always the case. The assumptions held in modern financial theory are considered by economists and psychologists to be bad assumptions (Nofsinger, 2005). A strong impression has been formed that traditional financial theory, which assumes that decisions are made rationally, has been empirically proven. However, in line with developments in various fields, especially investors' understanding of investment, the world of investment is starting to experience a shift (Ricardi & Simon, 2009). Awareness of the role of behavior as a main factor in determining a type of investment is starting to emerge.

Likewise, the impact on economic conditions has experienced rapid development and progress along with the ongoing globalization. With this, every individual must have sufficient ability and knowledge to manage their financial resources and wealth. The management of financial resources and wealth will result in a decision in what form these resources will be allocated. One way to manage your financial resources or wealth is by investing. There are several factors that can influence investment decisions, especially by individual investors,
namely social demographics, financial knowledge, and financial attitudes. Socio-demographic factors in this case include gender, age, education and income. Apart from socio-demographic factors.

Mahdzan and Tabiani (2013) revealed that social demographics that influence an individual’s investment decisions are influenced by factors such as age, gender, education level, number of children, marital status, and income. Rahmatia (2004) explains that type of work and income influence individual consumption levels. Lusardi and Mitchell (2007) found that there are differences between men and women in making financial decisions. Men tend to have better abilities in making financial decisions because they have broader financial knowledge.

From the aspect of financial knowledge (financial literacy), it certainly influences investment decisions. According to Volpe, et al, (1996) stated that men’s financial literacy is higher than women, so men are better at managing finances. Meanwhile, Krishna, et al, (2010) revealed that men have a lower level of financial literacy than women, especially with regard to knowledge of investment, credit and insurance. Hilgert, et al, (2003) and Cude, et al, (2006) state that the need for financial knowledge and investment techniques is something that cannot be ignored anymore like before. Brown (1979) in his research revealed that the number of employees experiencing financial difficulties was around 10% (in Joo, n.d). Household spending, credit use and stress have grown enormously in recent decades. This can be seen from concrete evidence and current media reports which show a much higher proportion of news related to the stress experienced by people as a result of the financial problems they face.

Orton (2007) states that financial knowledge is an inseparable thing in life because it is a useful tool for making financial decisions. In several countries, it still shows that financial knowledge among the public is still relatively low. According to research conducted by the Kadence International Indonesia Institute, it is stated that many Indonesians are still in debt (Mohamad, 2013). The final factor that will be examined in this research is the financial attitude aspect. The financial attitude concerns the application of financial principles to create and maintain value through sound decision making and management of resources and finances. Financial attitude is a state of mind, opinions and judgments about finances (Pankow, 2003).

This research takes as its object the employees of the Central Financial Audit Agency (BPK), starting from employee elements, both functional and supporting within the Secretariat General, Main Inspectorate, Main Auditorate of State Finance I to. VII, Main Auditor of State Finance in the Investigative Sector, Central Government Financial Expert Staff, Regional Government Financial Expert Staff, BUMN/BUMD Expert Staff, Expert Staff in the Environment and Sustainable Development, Expert Staff in the Investigative Sector. The selection of research objects at BPK is based on the assumption that judging from socio-demographic factors, BPK employees are in the high category, both in terms of literacy, attitude and income, so it is interesting to do research on how these factors relate to investment decision making.

The aim of this research is to find out how social demographics, financial knowledge and financial attitudes influence individual investment decision making.

METHOD
Research Approach

Based on the approach used, this research is included in quantitative research. The quantitative approach emphasizes the existence of variables as research objects, and these variables must be defined in the form of operationalization of each variable (Siregar, 2013: 30). Meanwhile, based on the method used, this research is survey research.

In this quantitative approach research, researchers used inferential statistical methods with the help of the SEM and LISREL 8.8 method applications. From this application, the figures obtained will then be interpreted so that the extent of the
relationship between the variables studied can be known.

Research Population and Sample

The population in this study were employees at the Head Office of the Republic of Indonesia Financial Audit Agency (BPK), starting from staff elements both functional and supporting within the Secretariat General, Main Inspectorate, Main Auditorate of State Finance I to VII, Main Auditor of State Finance for Investigative Sector, by taking a sample of 100 employees.

Data analysis technique

The data analysis technique in this research uses the Structural Equation Modeling (SEM) model. The selection of this model is based on the assumption that the research variables cannot be measured directly, where there are several indicator variables. SEM is a method that is able to show the simultaneous relationship between indicator variables (which are directly observed) and latent variables (which are not directly observed). Raykov and Marcoulides (2006) define a latent variable as a theory or hypothesis of a very important construct or a variable that does not have a sample or population that can be observed directly.

RESEARCH DESIGN

![Research Design Diagram]

Figure 1. Research Design
Result

Model Fit Test

In the process of analyzing a research model, various stages are carried out to test the quality of the data and its suitability for various indicators. Based on the results of the SEM model calculations as shown in Table 5.14, the goodness of fit index is produced as follows:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Result</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square</td>
<td>9.42</td>
<td>Small</td>
<td>good</td>
</tr>
<tr>
<td>Probability</td>
<td>0.00</td>
<td>≤ 0.05</td>
<td>good</td>
</tr>
<tr>
<td>GFI</td>
<td>0.99</td>
<td>near 1</td>
<td>good</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.98</td>
<td>near 1</td>
<td>good</td>
</tr>
<tr>
<td>RMR</td>
<td>0.02</td>
<td>Very Small</td>
<td>good</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>3.64</td>
<td>≥ 2.00</td>
<td>good</td>
</tr>
</tbody>
</table>

Analyzed Data, (2019)

Based on Table 1, it can be seen that all test criteria show good results. The model testing carried out resulted in good confirmation of the factor dimensions and causal relationships between factors. Thus, the model can be accepted.

Structural Analysis

Structural analysis describes the similarity relationship between the variables studied. From the results of statistical tests, the following picture is obtained:

Figure 2. Output Structural Model (Standardized)

Based on Figure 1, the structural equation can be written:

Investment Decision = 0.78 Demographics + 0.85 Literacy + 0.63 Attitude + e

The structural equation describes:
1. 78% of investment decisions can be explained or influenced by demographic factors.
2. 85% of investment decisions can be explained or influenced by financial literacy factors.
3. 63% of investment decisions can be explained or influenced by financial attitude factors.

Hypothesis test

Based on the research conceptual framework previously stated, this research has several hypotheses H0 and Ha for each variable. Where H0 is a hypothetical assumption that has no influence, while Ha is a hypothetical assumption that has an influence.

To test this hypothesis, statistical tests were carried out using Structural Equation Modeling (SEM) Analysis calculations as quantitative analysis. According to Ghozali (2005:84) "the t-statistical test basically shows how far the influence of an explanatory/exogenous variable individually is in explaining the endogenous variable." Determining whether the hypothesis is accepted or rejected is as follows:

If tcount > t table, then H0 is rejected and Ha is accepted, meaning that there is an influence between the independent variable and the
dependent variable. If \( t_{hitung} < t_{table} \), then \( H_0 \) accepted and \( H_a \) rejected. This means that there is no influence between the independent variable and the dependent variable.

The following is an explanation of the relationship between each variable in this research.

1. The Influence of Demographic Factors on Investment Decisions

In the Demographic Factors variable on Investment Decisions, the hypothesis is:

\[ H_0: \text{Social Demographic Factors do not have a positive effect on Investment Decisions} \]
\[ H_a: \text{Social Demographic Factors have a positive influence on Investment Decisions} \]

Then, after formulating the hypothesis, the next step is to test the hypothesis using SEM analysis. After being tested via SEM, the results obtained are as shown in Table 2 below:

<table>
<thead>
<tr>
<th>( t_{value} )</th>
<th>( t_{table} )</th>
<th>( p-value )</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.680</td>
<td>1.960</td>
<td>0.002</td>
<td>( H_0 ) rejected/positively influenced</td>
</tr>
</tbody>
</table>

Analyzed Data, (2019)

From Table 2 above, it can be seen that the \( t \)-value result is 3.68 or greater than the \( t \) table 1.96. Thus, rejecting the null hypothesis and accepting the alternative hypothesis means that Social Demographic Factors have a positive effect on Investment Decisions. The better the demographic factors, the greater the investment decision. On the other hand, if demographic factors do not support it, it will not increase investment decisions.

1. The Influence of Financial Knowledge on Investment Decisions

In the Financial Knowledge (Financial Literacy) variable on Investment Decisions, the hypothesis is:

\[ H_0: \text{The financial knowledge factor has no positive effect on investment decisions among BPK employees.} \]
\[ H_a: \text{The financial knowledge factor has a positive effect on investment decisions among BPK employees.} \]

After being tested via SEM, the results obtained are as in Table 3 below:

Table 3. Hypothesis Test Results for Financial Knowledge on Investment Decisions

<table>
<thead>
<tr>
<th>( t_{value} )</th>
<th>( t_{table} )</th>
<th>( p-value )</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.85</td>
<td>1.960</td>
<td>0.000</td>
<td>( H_0 ) rejected/positively influenced</td>
</tr>
</tbody>
</table>

Analyzed Data, (2019)

From Table 3 above, it can be seen that the \( t \)-value result is 5.85 or greater than the \( t \) table 1.96. Thus, rejecting the null hypothesis and accepting the alternative hypothesis means that Financial Knowledge has a positive and significant effect on Investment Decisions. The better an individual's financial literacy, the greater the investment decisions will be. On the other hand, if financial literacy is weak, it will not influence investment decisions.

1. The Influence of Financial Attitudes on Investment Decisions

In the Financial Attitude variable towards Investment Decisions, the hypothesis is:

\[ H_0: \text{Financial Attitude Factors do not have a positive effect on Investment} \]
\[ H_a: \text{Financial Attitude Factors have a positive influence on Investment} \]
Decisions of BPK Employees.

Ha3: Financial Attitude Factors have a positive influence on Investment Decisions of BPK Employees.

After being tested via SEM, the results obtained are as shown in table 4 below:

Table 4. Hypothesis Test Results for Financial Attitudes towards Investment Decisions

<table>
<thead>
<tr>
<th>t value</th>
<th>t table</th>
<th>p-value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,63</td>
<td>1,960</td>
<td>0,004</td>
<td>H0 rejected/positively influenced</td>
</tr>
</tbody>
</table>

Analyzed Data, (2019)

From Table 4 above, it can be seen that the t-value result is 2.630 or greater than the t table 1.96. Thus, rejecting the null hypothesis and accepting the alternative hypothesis means that Financial Attitude has a positive effect on Investment Decisions. The better the individual’s financial attitude, the more it will influence investment decisions. On the other hand, if financial literacy is weak, it will reduce the influence of investment decisions.

1. Simultaneous Influence of Social Demographics, Financial Knowledge and Financial Attitudes on Investment Decisions

The hypothesis is:

H04: Simultaneous Social Demographic Factors, Financial Knowledge and Financial Attitudes do not have a positive effect on Investment Decisions of BPK Employees.

Ha4: Social Demographic Factors, Financial Knowledge and Financial Attitudes Simultaneously have a positive influence on Investment Decisions of BPK Employees.

After being tested via SEM, the results obtained are as shown in table 5 below:

Table 5. Results of Social Demographic Hypothesis Testing, Financial Knowledge and Financial Attitudes towards Investment Decisions

<table>
<thead>
<tr>
<th>R Square</th>
<th>p-value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.76</td>
<td>0.000</td>
<td>H0 rejected/positively influenced</td>
</tr>
</tbody>
</table>

Analyzed Data, (2019)

From Table 5 above, it can be seen that the R Square value is 0.76 with a measurement error rate of 0.000 or very low (<5%). In other words, it can be stated that 76% of Investment Decisions combined can be explained or influenced by Social Demographic variables, Financial Knowledge and Financial Attitudes. Meanwhile, as much as 24% was influenced by external factors other than the three independent variables studied.

Of the three independent variables studied, it shows that the variables that have the most influence on investment decisions are the financial literacy variable, the second social demographic variable and finally the financial attitude variable.

DISCUSSION

1. The Influence of Social Demographic Factors on Investment Decisions

Based on the results of this research, it confirms that social demographic factors have a positive influence on investment decisions. The results of statistical tests recorded that 78% of investment decisions were influenced by socio-demographic factors. From several indicator variables studied, it shows that income is an important factor in socio-demographic variables, then age maturity and education.
Meanwhile, gender or sex factors are not an important element of socio-demographic factors in investment decisions. The results of this research are in line with the opinion of Puspitasari (2014) who states that socio-demographic factors are thought to have a positive influence on investment decision making by investors. This is also supported by the opinion of Lewellen et al, as quoted in Kusumawati (2013), that socio-demographic factors are related to investment decisions. The results of this research are in line with the results of research such as that conducted by Putri and Rahyuda (2017) who examined the influence of socio-demographic factors on investment decision behavior, where in their research it was stated that socio-demographic factors had a positive influence on investment decisions, although in their research the factors were not mentioned in detail. What socio-demographics have a positive influence on investment decisions. However, the results of this research are sufficient to explain that socio-demographic factors such as income have a significant influence on investment decisions.

2. Simultaneous influence of social demographics, financial knowledge and financial attitudes on investment decisions

Based on the results of this research, it can be seen that the influence of social demographic factors, financial knowledge and financial attitudes together or simultaneously can influence individual investment decisions. This can be interpreted as meaning that a person in making investment decisions cannot be separated from the influence of socio-demographic factors, financial knowledge and financial attitudes together.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion
1. Based on the results of this research, it confirms that social demographic factors have a positive influence on investment decisions. Statistical test results show that 78% of investment decisions are influenced by socio-demographic factors. From several indicator variables studied, it shows that the income factor is an important factor in the socio-demographic variables, then the age maturity and education factors. The higher the income and supported by mature age and education, the more rational it will be to invest. On the other hand, if income and age and education do not support it, then awareness of investing will also be low.

2. Based on the results of this research, it confirms that financial knowledge (financial literacy) has a positive and significant influence on investment decisions. Statistical test results show that 85% of investment decisions are influenced by financial knowledge. If financial knowledge increases, it will influence or increase investment decisions. Conversely, if financial knowledge is weak it will not influence investment decisions. Of the three indicator variables studied, it is noted that the investment knowledge factor is the strongest factor of financial knowledge for investment decision purposes.

3. Based on the results of this research, it confirms that financial attitude has a positive effect on expectations or decisions about investing. Statistical test results show that 63% of investment decisions are influenced by the respondent’s financial attitude. Of the several indicators studied, the cognitive aspect makes an important contribution to financial attitudes. This means that the individual’s beliefs or attitudes towards finances are quite good. Then the behavioral aspect in applying finance and finally the affective aspect or the individual’s emotional attitude towards finance.

4. Based on the results of this research, it is confirmed that social demographic factors, financial knowledge (financial literacy), and financial attitude (financial attitude) have a positive influence on expectations or decisions to invest. The results of statistical tests recorded that 76% of investment decisions were influenced by socio-demographic factors, financial knowledge and financial attitudes together from respondents.
Suggestion
Based on the results of this research, there are several suggestions that can be taken into consideration, especially for BPK employees who are the object of research, namely:
1. The results of this study show that socio-demographic factors from the aspects of age, education and income positively influence investment decisions. In terms of age, it can be concluded that the older a person is, the more profitable the investment decisions they make. This can of course determine the attitude of tolerance towards the return and risk of an investment choice. The older a person is, the more risk-averse they are in making investment decisions, and vice versa. This means that the older a person is, the wiser and more careful they will be in taking investment risks. Therefore, the suggestion that can be made is that BPK employees should increase their maturity in considering the returns and risks of an investment decision option so that the investment decision choice can be more profitable. In terms of income, it can be interpreted that the higher a person's income, the more profitable the investment decisions they make. This phenomenon occurs because the funds owned by investors with low incomes are more likely to be used to fulfill living needs rather than being invested in several assets. Therefore, the suggestion that can be made is that employees can improve or manage their finances or, if possible, look for additional legal sources of income. With more income, it is hoped that employees will be able to set aside some of their income and allocate it to various assets with profitable investment options.

For future researchers, it is recommended to add other variables that have the possibility of influencing investment decisions. This is because there are still many variables outside the variables in research that can influence investment decisions, so it is hoped that this can further clarify the factors that influence investment decisions.

Bibliography
2. Cliff A. Robb and Deanna L. Sharpe. (2009), Effect of Personal Financial Knowledge on College Students Credit Card Behavior
3. Dalia Gilad and Doron Kliger, Priming of Risk Attitudes of Professionals in Financial Decision Making 2008
23. Wijanto, Setyo Hari, 2008, SEM dengan Lisrel 8.8, Yogyakarta, Graha Ilmu