THE EFFECT OF FINANCIAL LITERATURE, INCOME AND HERDING BIAS ON INVESTMENT DECISIONS
(Study on Students of the Faculty of Economics and Business, Mercu Buana University, Jakarta)

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Abstract

This research is a quantitative research which aims to determine the effect of financial literacy, herding bias and income on investment decisions. The population in this study were students of the Faculty of Economics and Business, Mercu Buana University, Jakarta. The sample consisted of 100 respondents. Purposive sampling method. Data collection is done by distributing questionnaires to a predetermined sample via google form. The data analysis technique used the PLS (Partial Least Square) analysis method with Smart PLS3.0 software. The results of this study indicate that: (1) Financial literacy has an influence on investment decisions with a path coefficient value of 0.294; (2) Income has a significant influence on investment decisions with a path coefficient value of 0.412. (3) Herding bias does not have a significant effect on investment decisions with a path coefficient value of 0.150.

INTRODUCTION

Investment is a sacrifice made in the present with the aim of getting greater benefits in the future (Haming and Basalamah, 2010). Based on information from JAKARTA, KOMPAS.com - Throughout 2021 to August 31, 2021, the number of single investor identification (SID) reached 2.69 million SID. This achievement is a record high in history. The number of new stock investors grew rapidly in the eight months of this year. The number has almost doubled from the previous achievement in 2020 which amounted to 590,658 new SIDs. President Director of the Indonesia Stock Exchange (IDX) Inarno Djajadi said the achievement of this record was the result of synergy and collaboration carried out by all stakeholders in the Indonesian Capital Market. And as evidence that the level of public awareness to carry out financial planning through investment is getting higher. In this study, there is a gap phenomenon where the questionnaire we conducted shows that there are still students who have not become investors, while the growth of investors is said to have increased.

However, in making investment decisions, a lot of knowledge is needed which is one of the factors that influence investment decisions. Financial literacy is a general understanding of management and attitudes about finance. When an individual has a plan to make an investment, the main thing that must be possessed is adequate financial knowledge so that financial decisions are good and have clear goals (Putri and Rahyuda 2017). This is in line with research conducted by Fatimah and Trihudiyatmanto (2021), Lindanan and Angelina
Dewi and Purbawangsa (2018), Bebasari and Istikomah (2020) and Rustan (2021) which state that financial literacy has a significant effect on investment decisions. However, in the research conducted by Putri and Isbanah (2020), Pradhana (2018), Senda, Rahayu and Rahmawati (2020), Arianti (2018) financial literacy has no effect on investment decisions.

Another factor that influences investment decisions is income. To invest, you need funds or capital that can come from loans or personal funds. In addition to knowledge about finances, income and experience in investing also influence investment decisions, the more income a person has and experience in managing these finances, the better the way of managing his finances for the future by considering the risks that will occur and tolerating these risks. (Nababan and Sadalia, 2013). This is reinforced based on several previous studies conducted by Landang, Widnyana, and Sukadana (2021), Safitri, Yanuar (2021), Safryani, Aziz, and Triwahyuningtyas (2020), Dewi and Purbawangsa (2018), Senda, Rahayu, and Rahmawati. (2020), Arianti (2018) and Rasyid, Linda, Patrisia, Fitra, Yuliza, and Susanti (2018) which state that income has a significant effect on investment decisions. Meanwhile, research conducted by Lindananty and Angelina (2021) and Putri and Isbanah (2020) stated that income had an insignificant impact on investment decisions.

Apart from knowledge and income, investment decisions are also influenced by the behavior of investors in making decisions. Herding bias behavior is an irrational act in which investors do not base their investment decisions on available information or the company's fundamental value but on the actions of other investors or on noise that occurs in the market. According to Liem & Sukamulja (2017) investors with herding bias behavior will follow investors in making decisions even though the actions taken are considered less logical when making decisions related to investment. Several previous studies have said that herding bias has a significant effect on investment decisions as studied by Safitri, Yanuar (2021), Putri and Isbanah (2020), and Robin and Angelina (2020). However, research by Mahadevi, Asandimitra (2021), Setiawan, Atahau, and Robiyanto (2018) states that herding bias behavior does not have a significant impact on investment decisions.

Many researches on investment decisions have been carried out with inconsistent results. Furthermore, researchers will conduct research by filling in the gaps with the research title "The Effect of Financial Literacy, Income and Herding Bias on Investment Decisions (Study on Students of the Faculty of Economics and Business, University of Mercu Buana Jakarta)".

LITERATURE REVIEW

Theory of Planned Behavior (TPB)

Theory of Planned Behavior (TPB) is the development of the theory of reasoned action (TRA) developed by Ajzen and Fishbein (1985). This theory states that humans tend to act according to intentions and perceptions of control through certain behaviors, where intentions are influenced by behavior, subjective norms and behavioral control (Deviyanti, Purnamawati, and Yasa, 2017), so that if someone has a perception and is supported by subjective norms and good behavior control about something, the person will get a high intention (motivation) to take an action.

Investment decision

According to Wulandari (2014) in Aristya (2019), an investment decision is a decision in which a person places his/her funds in the form of an investment, so as to earn a profit in
the future. Investment decisions are the process of allocating funds for investment in the hope of getting a profit (Budiarto and Susanti, 2017).

**Financial Literacy**

Financial literacy is a combination of awareness, knowledge, skills, attitudes and behaviors needed to make sound financial decisions to achieve individual financial well-being (Ariani et.al, 2016). Meanwhile, according to the Financial Services Authority (2017) financial literacy is the skills, knowledge and beliefs that influence attitudes and behavior in order to increase the quality of decision making and financial management to achieve prosperity.

**Income**

Income is all income derived from company salaries, sales proceeds, investments or other sources in the form of money, goods, or psychological satisfaction (Safryani, Aziz and Triwahyuningtyas, 2020). Income is an indicator for measuring welfare of a person/family/household/community. Only with income, the economic progress of a society would appear (Luminatang, 2013 In Rahman and Risman, 2021). A person's income basically depends on the work in the service or production sector, as well as the hours of work devoted, the level of hourly income received.

**Herding bias**

Herding bias the behavior of investors who tend to follow other investors in investing without conducting a fundamental analysis first so that the formed market becomes inefficient (Setiawan, Atahau and Robiyanto, 2018). This behavior is the most common mistake where investors tend to follow the majority in making investment decisions. The influence of the people around is the main reason an investor has herding behavior.

**Conceptual Framework**

This study aims to determine the effect of financial literacy, income and herding bias on investment decisions in students of the Faculty of Economics and Business, Mercu Buana University, Jakarta.

**Hypothesis:**

**H1**: Financial literacy (X1) has a positive and significant effect on investment decisions for students of the Faculty of Economics, Mercu Buana University, Jakarta.
H2: Income (X2) has a positive and significant effect on investment decisions for students of the Faculty of Economics, Mercu Buana University, Jakarta.

H3: Herding bias (X3) has a positive and significant effect on investment decisions of students of the Faculty of Economics, Mercu Buana University, Jakarta.

METHOD

The research design used by the researcher is a causality study that aims to test the hypothesis about the impact of one or several independent variables (independent) on the dependent variable (bound) with analysis techniques using multiple linear regression analysis with the help of Smart PLS3.0 software. The data used in this study are primary data obtained through questionnaires distributed online with a total of 100 respondents. The population in this study were active students at Mercu Buana University, Jakarta. The sampling technique used in this study used purposive sampling method, namely the sampling technique based on certain considerations. The following are the criteria used in sampling in this study, namely:
1. He is an active student at Mercu Buana University, Jakarta.
2. He is an active student of the Faculty of Economics and Business, Mercu Buana University, Jakarta.

This study uses two variables consisting of the independent variable and the dependent variable. The independent variables are:

**Financial Literacy (X1)**

Financial literacy is a combination of awareness, knowledge, skills, attitudes and behaviors needed to make sound financial decisions to achieve individual financial well-being (Ariani et.al, 2016).

**Income (X2)**

Income is all income derived from company salaries, sales proceeds, investments or other sources in the form of money, goods, or psychological satisfaction (Safryani, Aziz and Triawahyuningtyas, 2020).

**Herding bias (X3)**

Herding bias is the behavior of investors who tend to follow other investors in investing without conducting a fundamental analysis first so that the formed market becomes inefficient (Setiawan, Atahau and Robiyanto, 2018).

As for the dependent variable is:

**Investment Decision (Y)**

Investment decisions are the process of allocating funds for investment in the hope of getting a profit (Budiarto and Susanti, 2017).

RESULTS AND DISCUSSION

Description of Respondent Data

Characteristics of respondents based on gender there are 38 respondents (38%), male respondents, while 62 respondents (62%). Characteristics of respondents based on age there are 40 respondents for the age of 17-20 years (40%), for the age of 21-30 years as many as 59 respondents (59%) and for the age of 31-40 years as many as 1 respondent (1%). Characteristics of respondents based on investment experience shows that 63 respondents have invested (63%) and 37 respondents (37%) have not invested. Characteristics of respondents who have made investments, the financial instruments used show that 52 respondents invest in stocks, invest in bonds as much as 2 respondents, invest in mutual funds as many as 7 respondents, 1 respondent to invest in gold derivatives and 1 respondent to invest in crypto currency.
Figure 2.
Outer model

Source: Output SmartPLS 3.0

Figure 3. Outer model after re-estimation

Source: Output SmartPLS 3.0
**Data Analysis and Hypothesis Testing**

**Measurement Model (Outer model)**

For the validity of the herding variable, the bias on the indicator does not show obstacles because the results show greater than 0.7. The results of financial literacy show results that are smaller than 0.7, namely LK5 with a value of 0.635, LK7 with a value of 0.602, LK8 with a value of 0.675. The income variable shows PE1 below 0.7 with a value of 0.632. The investment decision variable shows results below 0.7, namely KI2 with a value of 0.526, KI7 with a value of 0.534, KI8 with a value of 0.475. So that the respondent's results are deleted and no longer used. From the results of the re-estimation, it can be stated that all instruments for each indicator are valid with the fulfillment of all requirements, because all correlation values, namely the factor loading value, are more than 0.70.

**Discriminant Validity Test**

Table 1. Average Variance Extracted (AVE)

<table>
<thead>
<tr>
<th>Information</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Decision (Y)</td>
<td>0.694</td>
</tr>
<tr>
<td>Financial Literacy (X1)</td>
<td>0.649</td>
</tr>
<tr>
<td>Revenue (X2)</td>
<td>0.589</td>
</tr>
<tr>
<td><strong>Herding bias (X3)</strong></td>
<td>0.819</td>
</tr>
</tbody>
</table>

Source: Data processed, 2021

AVE values above 0.50 can be considered valid. The highest value of AVE is the Herding Behavior variable, which is 0.819, while the lowest value of AVE is the Income variable, which is 0.589.

**Reliability Test**

Table 2. Composite Reliability dan Cronbach’s Alpha

<table>
<thead>
<tr>
<th>Variable</th>
<th>Composite Reliability</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Decision (Y)</td>
<td>0.919</td>
<td>0.889</td>
</tr>
<tr>
<td>Financial Literacy (X1)</td>
<td>0.902</td>
<td>0.862</td>
</tr>
<tr>
<td>Revenue (X2)</td>
<td>0.851</td>
<td>0.767</td>
</tr>
<tr>
<td><strong>Herding bias (X3)</strong></td>
<td>0.947</td>
<td>0.926</td>
</tr>
</tbody>
</table>

Source: Data processed, 2021

Nilai dari setiap variabel dalam composite reliability dan cronbach’s alpha lebih dari 0.70, maka jawaban yang diberikan responden terhadap setiap butir pertanyaan bersifat konsisten dan stabil sehingga menghasilkan nilai reliabilitas yang baik atau reliabel.

**R-Square**

Table 3. R-Square

<table>
<thead>
<tr>
<th>Variable</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Decision (Y)</td>
<td>0.508</td>
</tr>
</tbody>
</table>

Source: Data processed, 2021

It is known that the result is the value of R-Square investment decisions that is equal to 0.508. So it can be assumed that Financial Literacy, Income and Herding are biased by 50.8% towards investment decisions and the remaining 49.7% explains that there is an influence on investment decisions by other variables or factors such as financial attitudes and demographic factors.
Hypothesis Test and t-Statistic Test

The t-statistic test is used by researchers to determine whether the independent variable (X) individually affects the dependent variable (Y). T table = 1.992, then connect the significance level of 0.05 or 5%.

The results of the original sample on the financial literacy variable according to the table below are 0.294, income is 0.412, and herding bias is 0.165. The results of the original sample for the three variables are positive, which means that the relationship between financial literacy, income and herding bias on investment decisions is positive, in this case the results of the original sample are not negative.

Table 4. Path Coefficients

<table>
<thead>
<tr>
<th>Construct</th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herding bias -&gt; Investment Decision</td>
<td>0.150</td>
<td>0.142</td>
<td>0.112</td>
<td>1.333</td>
<td>0.183</td>
</tr>
<tr>
<td>Financial Literacy -&gt; Investment Decision</td>
<td>0.294</td>
<td>0.286</td>
<td>0.118</td>
<td>2,503</td>
<td>0.013</td>
</tr>
<tr>
<td>Income -&gt; Investment Decision</td>
<td>0.412</td>
<td>0.430</td>
<td>0.108</td>
<td>3,802</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: Data processed, 2021

Table 4. above shows that the financial literacy variable has a t-count of 2.503 > ttable 1.992 and a significance value (P Values) of 0.013 <0.05 which indicates Ho is accepted and Ha is rejected. This shows that financial literacy has a significant positive effect on investment decisions. Table 4. above shows that the income variable has a t-count of 3.802 > ttable 1.992 and a significance value (P Values) of 0.000 <0.05 which indicates Ho is accepted and Ha is rejected. It is concluded that income has a significant positive effect on investment decisions. Table 4. above shows that the herding bias variable has a t-count of 1.333 < ttable 1.992 and a significance value (P Values) of 0.183 > 0.05 which indicates Ho is rejected and Ha is accepted. This shows that herding bias does not have a significant positive effect on investment decisions.

DISCUSSION

The influence of financial literacy on investment decisions

The effect of financial literacy on investment decisions based on the results of research that has been carried out between the attachment of the two variables, shows the value of the financial literacy coefficient on investment decisions is 0.294 and the t-statistical test shows the t-count value 2.053 > ttable 1.96 (5%) and the significant p-value ) of 0.013 < 0.05. This shows that the financial literacy variable has a significant positive effect on investment decisions for Faculty of Economics and Business students, Mercu Buana University, meaning that in this case the indicators contained in financial literacy have contributed enough as their role to influence investment decisions. Thus, it can be interpreted that financial literacy has a significant positive influence on investment decisions or in other words H1 is accepted. The influence of financial literacy on investment decisions is 29.4%. These results support and are in line with the research hypothesis.

This research is in line with the research conducted by Fatimah and Trihudiyatmanto (2021), Lindananty and Angelina (2021) and Landang, Widnyana, and Sukadana (2021), Sitiunjak, Afrizawati and Ridho (2021), Faalih (2021), Safryani, Aziz, Dan Triwahyuningsytas
(2020), Munawar, Suryana, Dan Nugraha (2021) Genjik, Dan Budiman (2020), Dewi and Krisnawati (2020), Putrid and Hamidi (2019). Dewi and Purbawangsa (2018), Bebasari and Istikomah (2020) and Rustan (2021) whose research concludes that the financial literacy variable has a significant influence on investment decisions. So the results of this study are in accordance with the hypothesis that has been made, namely financial literacy has a positive and significant effect on investment decisions of students of the Faculty of Economics and Business, Mercu Buana University, Jakarta.

**Influence of Income on Investment Decision**

Based on the results of research that has been carried out between the two variables, the coefficient of income on investment decisions is 0.412 and the t-statistical test shows the t-count value of 3.802 > t-table 1.96 (5%) and significant value (P Values) of 0.000 < 0.05. This shows that the income variable has an effect on investment decisions for students of the Faculty of Economics and Business, Mercu Buana University, Jakarta. Thus it can be interpreted that income has a significant positive effect on investment decisions or in other words H2 is accepted. A person's income has an influence on the management of his personal finances, the more their income, the greater the consideration for making investment decisions.

The results of this study are in line with those of Landang, Widnyana, and Sukadana (2021), Safryani, Aziz, and Triwahyuningsih (2020), Dewi and Purbawangsa (2018), Senda, Rahayu, and Rahmawati (2020), Arianti (2018) and Rasyid, Linda, Patrsia, Fitra, Yuliza, and Susanti (2018) who in their research conclude that income has a significant influence on investment decisions. So the results of this study are in accordance with the hypothesis that has been made, namely income has a significant positive effect on investment decisions for students of the Faculty of Economics and Business, Mercu Buana University, Jakarta. Which means H2 is accepted.

**Effect of Herding Bias on investment decisions**

Based on the results of research that has been carried out between the attachment of the two variables, it shows that the herding bias coefficient on investment decisions is 0.150 and the t-statistical test shows the t-count 1.333 < t-table 1.96 (5%) and the significant value (P Values) is 0.183 > 0.05. This shows that the herding bias variable has no effect on investment decisions for students of the Faculty of Economics and Business, Mercu Buana University, Jakarta. These results indicate that investors tend to receive information and perform good analysis to choose stocks. Investors tend to be rational because they are not influenced by other investors and do not follow the noise that occurs in the market. This shows that investors in making investment decisions are more likely to pay attention to information first in making their decisions. This investor behavior can also occur because of the availability of information that investors feel is sufficient as a basis for making investment decisions coupled with the status of investors where students enable them to be able to dig up a lot of valid information as a basis for making investment decisions with various adequate sources.

The results of this study are in line with the research of Mahadevi, Asandimitra (2021), Setiawan, Atahau, and Robiyanto (2018) which states that herding bias behavior has no significant effect on investment decisions. So the results of this study are not in accordance with the hypothesis that has been made, namely herding bias has a positive and significant effect on investment decisions of students of the Faculty of Economics and Business, Mercu Buana University, Jakarta. Which means H3 is rejected.

**CONCLUSION**
Through this research, the researcher intends to find out about the influence of financial literacy, income and herding bias, on students of the Faculty of Economics and Business, Mercu Buana University, Jakarta. Based on the results of data processing along with the analysis and discussion that has been carried out in this study, it can be concluded that:

1. Financial literacy has a significant and positive effect on investment decisions for students of the Faculty of Economics and Business, Mercu Buana University, Jakarta.

2. Income has a significant and positive influence on investment decisions for students of the Faculty of Economics and Business, Mercu Buana University, Jakarta.

3. *Herding Bias* has no influence on investment decisions for students of the Faculty of Economics and Business, Mercu Buana University, Jakarta.

**REFERENCE**


