The Effect of Financial Literacy, Accounting Information, Risk Perception and Herding Behavior on Investment Decision

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Abstract: Based on data from KSEI, since 2019 the number of investors in Indonesia has increased significantly, known from the increase in the number of Single Investors Identification (SID). However, the level of financial literacy in Indonesia is still low. They indicated that people's understanding and knowledge of financial products is still need to be improved. The current study aims to assess the effect of financial literacy, accounting information, risk perception, and herding behavior on investment decisions. This research used quantitative techniques using questionnaires distributed to students of the accounting department at Veteran National Development University Yogyakarta, Indonesian Islamic University, and STIE YKPN Business School. This research used 70 respondents with a convenience sampling approach and multiple linear regression for analyzing the hypothesis. The result showed that financial literacy, accounting information, and herding behavior affect investment decisions. On the other hand, risk perception does not influence an investment decision.

Keywords: Accounting information; Financial literacy; Herding behavior; Investment decision; Risk perception.

1. Introduction

Developments in the era of digitalization as it is today, provide many conveniences for humans. Currently, many digital platforms make it easy for investors to invest. This convenience makes people more interested in investing in financial products like stocks, mutual funds, bonds, and others. This has led to the rapid development of investment in Indonesia proven by the increasing number of people investing in the Indonesia Stock Exchange. Stock is one of the most popular investment products. Based on the data from (KSEI) Kustodian Sentral Efek Indonesia (2022), from 2019 until February 2022 the number of capital market’s Single Investor Identification (SID) has continued to increase. In 2022 there was an increase in the number of Single Investor Identification (SID) by 92.99%. Dominated by investors under the age of 30 which is 60.32%. Then the number of investors with an undergraduate degree reached 30.11% with the most significant amount of assets among other education levels, amounting to IDR 496.94 trillion. The number of stock investors has also increased by 15.96% from 3,451,531 investors in 2021 to 4,002,289 investors in 2022. Stock investors are dominated by investors under the age of 40 at an asset value of IDR 144.07 trillion. The number of investors at a young age is more aware of the importance of investing.
A good increase in financial knowledge has yet to accompany the rise in the number of SIDs in Indonesia. Lukas Setia Admaja, an academician of finance and investment in Rahmawati (2019) stated that 85% to 90% of Indonesian capital market investors fail. This is due to the need for more skills and adequate investment knowledge. This phenomenon is in line with the survey data of Otoritas Jasa Keuangan (2019) which showed that the national financial literacy only reaches 38.03% while the national financial inclusion index reaches 76.17%. It demonstrates that the general population has easy access to financial products, but a common understanding of the benefits and risks of financial products still needs to be improved. Financial knowledge and inclusion should grow in tandem so that people remain cautious while using financial services. Financial expertise, particularly in the capital market, is necessary to make an accurate investment decision. As the number of investors in the capital market grows, so will the number of investment decisions. Investors must have rational behavior and good information management skills to make investment decisions accurately. However, when these psychological factors are present, investors frequently become irrational in their investment decisions (Khalisa et al., 2020).

Financial literacy is the knowledge an investor must acquire to make accurate investment decisions. Investors with a high level of financial literacy will be better equipped to make investment decisions that optimize return while minimizing risk. The better financial literacy owned by investors will make the decisions more effective since someone with good financial literacy will usually do investment planning before investing to make the decision more well-considered (Hardianto & Lubis, 2022). Therefore, financial literacy affects investment decisions. In addition to financial literacy, a rational factor that can influence investment decisions is accounting information. Accounting information is financial data that may be gleaned from the business's financial statements, which are meant to act as a guide for investors as they decide which investments to make (Al-shatnawi, 2017). Accounting information is employed in investing decisions because it contains "signals" regarding the company's prospects (William, 2011).

In addition to rational factors, psychological factors, such as risk perception, can impact investment decisions. Risk perception is an assessment that depends on the characteristics and psychological state of individuals towards risky situations that have a subjective role in choosing the best investment alternative among other alternatives (Permata & Mulyani, 2022). The capital market has a higher risk compared to other types of investment. To get a high rate of return, an investor must be sufficiently risk-taking. In addition to risk perception, herding behavior also contributes to irrational investing decisions. Duy Bui et al. (2021), claimed that a herding investor will imitate other investors who believe they can offer good information and be taken into account while making investing decisions. Based on the phenomena that occurred, researchers want to examine the effect of financial literacy, accounting information, risk perception, and
herding behavior on investment decisions. It is expected that the findings of this study would help investors make more informed investing decisions.

2. Literature Review & Hypotheses Development

2.1. Behavioral Finance Theory

The psychological influences on investor behavior that have an impact on the market are studied by the behavioral finance theory. It will be clear from this theory how and why a market could be inefficient (Sewell, 2007). Financial behavior is an important concept since it relates to the basis of thought and deliberation used by investors when making investment decisions. Emotions, attitudes, goals, desires, and other internal aspects of an investor can all have an impact on their decision to invest. The resultant variations in investor behavior may be caused by these reasons. Thus, this will influence investors in making irrational investment decisions (Pradikasari & Isbanah, 2018).

2.2. Signaling Theory

Signaling theory was first stated by Ross (1997). According to this theory, the information owner sends out a signal in the form of information about a company's state that will be helpful to investors or other interested parties. The information provided by the company to investors will be analyzed to find out whether the signal is positive or negative (Mustakini, 2010). Investors will then react to the signals given by the company. If the signal sent by the company is positive, investors will respond positively, so investors will be sure to invest in the company. Otherwise, if the signal received by investors is negative, then investors will not be interested in investing in the company.

2.3. Prospect theory

Prospect theory, first suggested by Kahneman & Tversky (1979), is an analysis of a person's behavior when making decisions on uncertain choices. Individuals make decisions based on more than just rational thinking, according to this theory. Individuals will likely be inconsistent and unreasonable while assessing and making decisions. Prospect theory considers not only the amount of rationality but also other factors such as economic, societal, and psychological aspects (Arianti, 2018). The prospect theory decision-making model states that individual decision-making is based on the advantages or disadvantages faced. This theory explains that if the reference value is defined as an expenditure that looks profitable, the decision-maker will refuse to take risks. However, if the decision maker is at a loss, the decision maker will be more willing to take risks.

2.4. Investment decision

An essential choice made by people or businesses when allocating their finances in the anticipation of future rewards is called an investment (Aristiwati & Hidayatullah, 2021). There are two behaviors of investors in making investment decisions, rational attitudes and irrational attitudes. A rational attitude is an attitude that thinks or considers with common sense. Investors who use their common sense will make investment decisions with the knowledge and abilities they have. Meanwhile, irrational is the other way around,
an attitude that is not based on common sense. Rational investors will make investment decisions based on their knowledge and skills, such as financial literacy and the ability to examine financial statements to gain the accounting information they require. Irrational investors, on the other hand, have attitudes that are not founded on common sense where psychological aspects such as risk perception and herding behavior will impact decisions.

2.5. Financial Literacy

Financial literacy is an understanding of financial concepts and personal financial management in making decisions to make financial planning, whether in the long term or short term (Coşkun et al., 2016). Investors with good financial literacy can understand the risks they face so that they make decisions carefully with the basic knowledge they have. This means that better financial literacy will lead to better quality investment decisions (Lusardi & Mitchell, 2009). Based on research conducted by Hardianto & Lubis (2022) found that financial literacy affects stock investment decisions. An investor with a high level of financial literacy will be more careful in making the right investment decisions to get the expected benefits. This is also in line with research conducted by Yasa et al. (2020) that financial literacy affects investment decisions. Based on the description above, the following hypothesis can be formulated:

\[ H_1: \text{Financial literacy affects investment decisions} \]

2.6. Accounting Information

Accounting information is information contained in the company's financial statements such as track record reports on the company's capacity, reports on company profits, stock prices, financial information of a company, and others. The information presented in the financial statements can be used by investors as a tool to find out how the prospects and conditions of the company in the future; this information can provide an evaluation to make investment decisions (Rakhmatulloh & Asandimitra, 2019). Accounting information can be easily found in the financial statements and utilized as an assessment of the company's condition and profitability. As a result, accounting information is often used as an evaluation object for investment decision-making by investors (Christanti & Mahastanti, 2011). Based on research conducted by Permata & Mulyani (2022), accounting information has a positive and significant effect on investment decisions. Investors evaluate quality information while making decisions to have better confidence in the decisions they make. The results are in line with Anggraini & Mulyani (2022) which found that accounting information has a significant effect on investment decisions during the Covid-19 Pandemic. Based on the description above, the following hypothesis can be formulated:

\[ H_2: \text{Accounting information has an effect on investment decision} \]

2.7. Risk Perception

Risk perception is an assessment that depends on the characteristics and psychological state of individuals towards risky situations that have a subjective role in choosing the best investment alternative among other alternatives (Anggraini & Mulyani, 2022). Risk
perception is intimately tied to investors' psychological willingness to face the hazards they would face. Investors who have a high level of risk perception will be more careful in making investment decisions, whereas investors with a low level of risk perception will be more courageous in making investment decisions (Anggraini & Mulyani, 2022). Based on research conducted by Permata & Mulyani (2022) found that risk perception has a positive influence on investment decisions during the Covid-19 Pandemic. When a person has a high-risk perception, he will be more courageous in making investment decisions. This is in line with research conducted by Pratama et al. (2020) who found that risk perception has a significant effect on investment decisions. Based on the description above, the following hypothesis can be formulated:

\[ H_3: \text{Risk Perception has an effect on investment decision} \]

### 2.8. Herding Behavior

Herding behavior is irrational behavior. Investor who exhibits a high degree of herding tends to base their decisions on the activities of other investors rather than reasonable considerations like the fundamental value of the company in question (Setiawan et al., 2018). The behavioral finance theory explains that investment decisions made by investors are not always rational, often irrational. One of the irrational financial decision-making habits is herding, in which an investor's actions are heavily influenced by those of other investors. An investor who has a high level of herding behavior will more often follow other investors in making investment decisions (Rona & Sinarwati, 2021). Research conducted by Permata & Mulyani (2022) found that herding behavior has a significant positive effect on investment decisions. An investor who has a high herding behavior will easily follow the behavior of other investors, but on the other hand, if an investor has a low herding behavior, he will not be easily influenced by the behavior of other investors. This is in line with research conducted by Mutawally & Asandimitra (2019) that herding behavior affects young investment decisions that tend not to be independent in making decisions. Based on the description above, the following hypothesis can be formulated:

\[ H_4: \text{Herding behavior has an effect on investment decision} \]

### 3. Method

This study population is students of the accounting department at Veteran National Development University Yogyakarta, Indonesian Islamic University, and STIE YKPN Business School. Convenience sampling was used to collect the sample. The sample taken is students of accounting departments who are members of the capital market study group who also actively invested in stocks. This study uses primary data collected from the questionnaires. The sample used in this research was 70 students and used a non-probability sampling technique through a convenience sampling approach. Through the survey, respondents were asked to answer each question on a Likert scale starting from “strongly disagree” with a score of 1 point to “strongly agree” with a score of 5 points.
### Table 1. Research Instrument

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicators</th>
</tr>
</thead>
</table>
| **Investment Decision (Y)** (Pak & Mahmood, 2015) | 1. Firm Image  
2. Neutral information  
3. Accountant information  
4. Personal financial needs |
| **Financial Literacy (X1)** (Fernandes et al., 2014) | 1. Choosing a safe investment  
2. Understanding personal financial condition  
3. Understanding financial records  
4. Understand the time value of money  
5. Understand the function of the stock market  
6. Understand companies value |
| **Accounting Information (X2)** (Obaidat, 2016) | 1. Previous profit  
2. Liquidity  
3. Share price  
4. Total assets  
5. Previous cash flow |
| **Risk Perception (X3)** (Weber et al., 2002) | 1. Physical risk  
2. Psychological risk  
3. Time risk  
4. Information  
5. Situation at the time of information retrieval |
| **Herding Behavior (X4)** (Kudryavtsev et al., 2013) | 1. Investment decisions depend on the investment decisions of others.  
2. React quickly to other investors’ changes.  
3. Prefer to buy stocks if they are in demand from the start of trading.  
4. If in the last month the volume of shares was higher in the market, it will increase the number of market holdings of shares. |

### 4. Result and Discussion

Respondent gender characteristics were dominated by males totaling 37 with a percentage of 52.19%, while females totaling 35 with a percentage of 47.19%. Respondents’ last education was dominated by novice investors with ≤ 1 year of stock investing experience. Respondents were dominated by students from STIE YKPN business school as many as 31 respondents (44.3%), from Indonesian Islamic University 23 respondents (32.9%), and from Veteran National Development University Yogyakarta 16 respondents (22.9%). Then, the student’s income is mostly ≤ 1,000,000 with 24 respondents (34.3%), ≤ 1,500,000 11 respondents (15.7%), ≤ 2,000,000 17 respondents (24.3%), > 2,000,000 18 respondents (25.7%). Most respondents have ≤ 1 year of stock investment experience as many as 27 respondents (38.6%), then ≤ 6 month 19 respondents (27.1%), ≤ 2 year 14 respondents (20.0%), ≤ 2 year 10 respondents (14.3%), and >2 years 10 respondents (14.3%).

A reliability test is an index that describes the extent to which a measuring device can be trusted or relied upon when used to measure the same symptoms more than once. In other words, the reliability test shows the consistency of the measuring device in measuring the same symptoms. The smaller the measurement error, the more reliable the measuring device is. Conversely, the greater the measurement error, the less reliable the
measuring device is. The reliability test in this study was carried out using one shot (once) using the Cronbach Alpha calculation. The variable is said to be reliable if the Cronbach Alpha value is greater than 0.6 (Ghozali, 2018). According to the table above, all variables in this research have Cronbach’s alpha > 0.06. Thus, it can be interpreted that all that variables are reliable.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy (X1)</td>
<td>0.773</td>
<td>Reliable</td>
</tr>
<tr>
<td>Accounting Information (X2)</td>
<td>0.741</td>
<td>Reliable</td>
</tr>
<tr>
<td>Risk Perception (X3)</td>
<td>0.658</td>
<td>Reliable</td>
</tr>
<tr>
<td>Herding Behavior (X4)</td>
<td>0.655</td>
<td>Reliable</td>
</tr>
<tr>
<td>Investment Decision (Y)</td>
<td>0.777</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

*Source: Primary data processed, 2023*

Table 3. Hypothesis Testing

<table>
<thead>
<tr>
<th>Variable</th>
<th>beta</th>
<th>t</th>
<th>P value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy</td>
<td>0.590</td>
<td>5.374</td>
<td>0.000**</td>
<td>H1: Accepted</td>
</tr>
<tr>
<td>Accounting Information</td>
<td>0.248</td>
<td>2.591</td>
<td>0.012*</td>
<td>H2: Accepted</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>0.018</td>
<td>0.209</td>
<td>0.835</td>
<td>H3: Rejected</td>
</tr>
<tr>
<td>Herding Behavior</td>
<td>0.119</td>
<td>2.093</td>
<td>0.040*</td>
<td>H4: accepted</td>
</tr>
<tr>
<td>F value: 28.538</td>
<td></td>
<td></td>
<td>0.000**</td>
<td></td>
</tr>
<tr>
<td>Adj R2: 0.615</td>
<td></td>
<td></td>
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</table>

**Sig < 1%; * Sig < 5%

Table 3 show that financial literacy has an effect on investment decisions. The result of this study is in line with Hardianto & Lubis (2022) and Mumtazah & Anwar (2022) who discovered that financial literacy has an effect on investment decisions. Respondents in this survey exhibit a high degree of financial awareness when it comes to making investing decisions. It is owing to the fact that the research respondents are students, and students often have a high level of literacy since they get a lot of literacy in lectures. A person with a high level of financial literacy has an understanding of the risks he faces so that in making decisions he is careful with the basic knowledge he has. Therefore, the better the financial literacy, the better the quality of investment decisions taken (Lusardi & Mitchell, 2009).

Table 3 show that accounting information has an effect on investment decisions. The result of this study is in line with Permata & Mulyani (2022) and Anggraini & Mulyani (2022) stating accounting information has an effect on investment decisions. Accounting information is the basis for investors’ considerations in making investment decisions. By analyzing accounting information, investors will know how the company’s prospects in the future. Investors can then decide whether to continue investing or cease investing. Permata & Mulyani (2022) found that investors use qualified information as a consideration in making decisions so that they will have more confidence in the decisions they choose.

The test of hypothesis 3 show that risk perception has no effect on investment decisions. The result of this study is in line with Pradikasari & Ispanah (2018) and
Permata & Mulyani (2022) stated that risk perception has no effect on investment decisions. It occurred because the respondents in this study are students who sign up for the capital market study group. As a result, the respondents are students who have enough background knowledge in the capital market to know how to reduce risks and losses. Therefore, the risk is no longer taken into account while making investing decisions.

The test of hypotheses show that herding behavior has an effect on investment decisions. This resulting study is in line with Permata & Mulyani (2022) and Rona & Sinarwati (2021) who found that herding behavior has an effect on investment decisions. The findings indicate that there is an investor inclination to imitate other investors' decisions. The majority of respondents in this survey are inexperienced investors who lack the necessary expertise to induce herd behavior. Herding behavior can influence the investing decisions of new investors, who are less likely to make autonomous decisions (Mutawally & Asandimitra, 2019). The majority of respondents in this study are beginners with investment experience of ≤ 1 year. This helps to understand why herding behavior influences investing decisions.

5. Conclusion

Based on the description presented earlier, it can be concluded that financial literacy has an effect on investment decisions. This indicates that a high degree of financial literacy affects investment decisions because investors with high levels of financial literacy comprehend the long-term demands and hazards of an investment decision. Accounting information has an effect on investment decisions. Because accounting information has explanatory power to explain the company's prospects. Thus, accounting information is used as a basis for decision-making by investors. It is also feasible to conclude that herding behavior affects investing decisions. This means that there are still biases in investment decision-making.

There are various limitations to this study. Since this study relies on primary data acquired by a questionnaire, there will probably be discrepancies in the interpretation of the questionnaire's statement questions. In addition, sometimes respondents did not provide answers that were following the actual situation. The study only included accounting students from Veteran National Development University Yogyakarta, Indonesian Islamic University, and STIE YKPN business school, hence the findings cannot be generalized. Based on the findings and limitations of this study, it is suggested that future researchers be able to identify and use other variables that are relevant to investment decisions because there are independent variables such as over confidence, which is the dominant feeling/jumping of individuals in understanding their knowledge and limitations. Because of the independent variables, investment decisions are biased (Pradhana, 2018). Furthermore, future researchers are also recommended to select a broader research object so that it has a greater impact on others and better depicts the actual situation.
References


