Financial Literacy, Risk Perception, and Herding Effects on Investment Decisions

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Abstract: - This study aims to analyze financial literacy, risk perception, and herding and its impact on investment decisions. The population in this research is an investor in Jakarta. The sample used is 100 respondents. Calculate based on Lameshow's formula. The method of data collection using the survey method, with the research instrument is a questionnaire. The data analysis method uses descriptive analytics. This study proves that financial literacy has a positive and significant effect on investment decisions, risk perception has a positive and significant effect on investment decisions and herding has not had a significant effect on investment decisions.

Keywords: Investment Decisions, Financial Literacy, Risk Perception, Herding, Investor.

I. Introduction

Nowadays investment is an important part for most people. Investment is one way to utilize the money you have. Because everyone has increasing needs and wants. Needs and wants are increasingly difficult to distinguish because the demands of the times are growing. To support an increasingly complex lifestyle, there are many demands to fulfill it. With that, one source of income is not enough. It is also part of the importance of using the money we have to meet all the needs of today.

The impact due to Covid-19 on the Indonesian economy in the first half of 2020 was contracted due to delays in investment in the real sector plus domestic demand which fell quite rapidly. The significant decline in global economic activity had a major impact on the capital market since the beginning of the year. Financial markets were affected.

During a pandemic like this, each individual will definitely be more careful in spending money and will be more careful in terms of financial vigilance because it is important for now to provide emergency funds to keep finances healthy (Siswanti,2020). Thus, at times like this, individuals are also more careful in making decisions when they want to invest (Sumarto, 2021). Conduct more analysis and considerationthan usual to prevent losses in difficult times like this.

According to CSD NEWS, there are five benefits of investing that potential investors need to know. The first is the long-term earning potential. Second, outperform inflation. Third, provide a steady income. Fourth, can adapt to changing needs. And fifth, can invest in accordance with their financial circumstances. The Law of the Republic of Indonesia Number 25 of 2007 concerning Investment states "that in order to accelerate national economic development and realize Indonesia's political and economic sovereignty, it is necessary to increase investment to process economic potential into real economic strength by using capital originating, both from within and outside the country. country and from abroad."

According to the Indonesian Central Securities Depository, PT (KSEI) in KSEI News Edition 3, the total Single Investor Identification (SID) as of September 2020 was 3,276,881 SID or in other words, Single Investor Identification (SID) grew 42% from October 2019 to September 2020 It is known that 71.20% of investors are residents of DKI Jakarta and Java.

Trading activity decreased in March 2020 along with news stating that COVID-19 had entered Indonesia. What happened at that time was that investors experienced panic selling for fear of experiencing huge losses. In March 2020, capital market conditions were sluggish, influenced by the large number of investors leaving the national stock exchange. At the end of March 2020 to August 2020, interest in reinvestment increased slowly.

MNC Sekuritas' early bird August 31, 2020 stated that the JCI is estimated to move at 5,320 - 5,380. The majority of stock markets in developed economies moved higher. The yellow continent stock market was mixed in yesterday's trading. The Hang Seng Index closed up +0.56%, the Shanghai Index closed up +1.60% and the Kospi Index closed +0.40% higher. Meanwhile, the Dow Jones closed higher by +0.57% at 28.653 this is in line with the strengthening of the S&P 500 by +0.67%. Wall Street closed higher driven by the Fed which will implement a longer loose money policy and the performance of technology-based issuers. From the commodity market, Nickel prices rose by +1.16%, Gold prices rose +1.74% and CPO prices rose +2.19%. On August 28 trading, the JCI closed lower by -0.46 to a level of 5.346. Market-moving sentiment today, including the US stock market which closed higher on Friday, had a positive impact on today's trading, apart from that, the development of the Corona vaccine is still pending

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by investors at this time, Meanwhile, this week there will be several data releases such as money supply, inflation, and Indonesian Manufacturing PMI data. From this phenomenon, it means that there are factors that influence investors to make investment decisions again.

Table 1. Results of Pre-Survey on Investment Decision Factors

Description	Response
Overconfidence	3
Overconfidence is a feeling of believing in yourself excessively.	
Herding	10
Herding is the behavior of investors who tend to follow other investors in making investments without conducting a fundamental analysis first	
Confirmation Bias	2
Confirmation bias is the attitude of a person who tends to ignore opinions/information that contradicts his thinking.	
Risk Perception	7
Risk perception is an appraisal or a view of the situation that has a risk when making a decision to invest.	
Financial Literacy	8
Financial Literacy is the ability to process financial information to make decisions in personal financial settings.	
Age	
20-24 years old	17
25-29 years old	10
30-34 years old	2
>34	1
* Note	
Respondent = 30	

Source: Pre-Survey

There are many factors that influence investment decisions. Then five factors that could influence investment decisions were taken and distributed to 30 respondents. The results show that overconfidence and confirmation bias do not affect investors in making investment decisions. From the results of the pre-survey, it is known that those influencing investment decisions are herding, risk perception, and financial literacy.

Theoretically and the results of the survey, these three variables have an influence on investment decision-making. However, it turns out that the results of previous studies did not provide results that agreed to agree that financial literacy, risk perception, and herding affect investment decisions.

Previous research conducted by several researchers on the influence of financial literacy on investment decisions gives the following results. Research by Ummy et al (2018) states that financial literacy affects investment decisions. Subsequent research conducted by Faris Wildan (2019) stated that financial literacy had no effect on investment decisions. However, the research conducted by Ummy et al (2019) also agrees that financial literacy has no effect on investment decisions.

Furthermore, previous research on the effect of risk perception on investment decisions has been carried out, including research conducted by Shadnan (2016) which states that risk perception has a positive effect on investment decisions. However, research conducted by Ellen (2018) says that risk perception has no influence on investment decisions. Research conducted by Samuel et al (2019) agrees with Shadnan (2016) that risk perception affects investment decisions.

Previous research on the effect of herding on investment decisions conducted by Muhammad et al (2018) stated that herding had an effect on investment decisions. In line with the results of Dila and Halmawati's (2019) research, herding has an effect on investment decisions. However, research conducted by Edi et al (2020) states that herding has no effect on investment decisions.

Based on the results of the pre-survey conducted and supported by previous research, I would like to conduct another research with these three variables to find out whether financial literacy, risk perception, and herding affect investment decisions by studying investors in Jakarta. So, based on the research gap above, the author decided to take the title "The Influence of Financial Literacy, Risk Perception, and Herding on Investment Decisions (Study on Investors in Jakarta)".

II. Literature Review

Behavioral Finance Theory. Behavioral finance is a science that studies how humans respond to and react to existing information in an effort to make decisions that can optimize returns and pay attention to the risks inherent in them. According to Christanti and Mahastanti (2011) an individual will not always behave in the same or consistent way in making investment decisions with an understanding of the information received or the perception assumptions made. According to Dew and Xiao (2011) financial behavior includes three financial dimensions, namely: Consumption. Cash-flow management and Saving and investment.

Decision theory is a theory about decision-making by individuals and groups and is used in various fields. According to Hansson (2018), when making decisions, there are three conditions and situations faced by decision-makers, namely, conditions of uncertainty, risk and certainty. Decision theory is related to decision theory in investment which is a specialty of decision theory, namely a theory that describes the decision-making process by rational investors based on information held by investors to determine the nature of risk in an investment portfolio and estimate the rate of return that will be received by investors. The assumptions used in decision theory include a.) Investors are rational, which means that in making decisions, investors will tend tochoose investments that have an expected utility that is spread over a certain risk. b.) Rational investors are investors who have a risk-averse nature. Investors who have a risk-averse nature will not accept a certain level of risk unless the investor will get a rate of return that is in accordance with the level of risk they accept..

Signaling theory explains why companies need to provide financial statement information to external parties. The company needs to provide information because there is an imbalance of information owned by company management and company shareholders because the company knows more about the company and its future prospects than outside parties (investors). According to Brigham and Houston (2015) a signal is an action taken by the company's management that provides instructions for investors about how management views the company's prospects in the future.

Theoretical Framework

The Effect of Financial Literacy on Investment Decisions

Financial literacy is the ability and knowledge of individuals in making decisions, plan, and financial accumulation to improve quality in financial decision-making and financial management for welfare. Financial literacy is part of learning in investment planning or managing finances so that decision-making is more focused.

Based on research conducted by Ummy, Buyung, Edi and Andi (2018), the results show that financial literacy has an effect on financial access, meaning that better financial literacy by SMEs in Southeast Sulawesi will reduce the financial gaps they face. Then the next result is that financial literacy affects investment decisions. This is contrary to research conducted by Faris and Nadia (2019) which states that financial literacy has no effect on investment decisions. This is because investors who are lacking in investment decision practice use financial literacy, reduce their caution by trusting investment experts and at one point feel they can control their investments but on the other hand, they don't, so they don't think about mastering it. Based on this description, the hypotheses that can be formulated are: H1: Financial literacy affects investment decisions

The Influence of Risk Perception on Investment Decisions

Risk perception is a subjective assessment made by a person about the characteristics and severity of a risk. Risk perception needs to be done so that we can predict the worst risk that will be obtained. Knowing the perception of risk also allows us to make investment decisions with the lowest risk and highest return

Based on previous research conducted by Shadnan (2016) and Samuel, Aishat and Idachaba (2019) concluded that risk perception affects investment decisions. With a high-risk perception or tolerance level with good financial knowledge and literacy will make or produce good investment decisions in the future. Vice versa, if the perception of risk and the level of tolerance is low with poor knowledge and financial literacy, it will result in poor investment decisions in the future. Based on this description, the hypotheses that can be formulated are: H2: Risk Perception affects investment decisions

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The Effect of Herding on Investment Decisions

According to Fityani and Arfinto (2015) herding is the behavior of investors who tend to follow other investors in making investments without conducting a fundamental analysis first so that the formed market becomes inefficient. Join-in behavior or also known as herding is often encountered by novice investors whose investment decisions are influenced by other people or rising events or investors who follow the market flow.

Based on previous research conducted by Qasim, Rana, Intkhab and Arshad (2018) and Dila and Halmawati (2019) agreed to show the results that herding had a significant positive effect on investment decisions. Based on this description, the hypotheses that can be formulated are: H3: Herding affects investment decisions

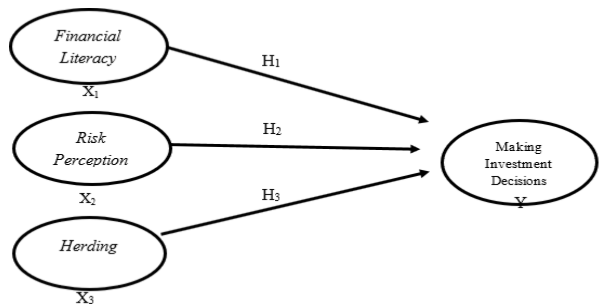

Figure 1. Conceptual Framework

III. Method

This research was conducted from September 2020 to August 2021. This research will be conducted using primary data and will obtain survey data from investors in Jakarta. This study, uses a causal research design. In this study, the authors used an interval scale in the assessment of each variable. In this study, data collection was carried out by conducting surveys and questionnaires as tools. Each question or statement contained in the questionnaire will be scored using a scoring system to determine the weight of the assessment. The population in this study are capital market investors in Jakarta. Because the population of investors in Jakarta is very large, the author narrows the population into beginner stock investors who decide to invest in stocks during the COVID-19 pandemic. respondents in this study were 96 respondents.

Table 2: Profiles of the Respondents

Description	Frequency	Precemtage (%)
Age		
20 – 24 years old	60	60%
25 – 29 years old	31	31%
30 years old	9	9%
Total Purchase of Shares in the Period March 2020 – March 2021		
2 – 4 times	60	60%
5 – 7 times	14	14%
> 7 times	26	26%
Income		
IDR 3.000.000 – IDR 4.999.999	51	51%
IDR 5.000.000 – IDR 8.999.999	43	43%
>IDR 9.000.000	6	6%
Total	100	100%

Source: 2021 questionnaire data processing

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The table above shows that the majority of respondents aged between 20-24 years were 60 respondents or 60%. this shows that at that age is a period where humans have a high curiosity and also have the thought of investing. The table above can be seen that as many as 60 respondents or 60% of respondents made 2-4 times share purchases in the period March 2020 to March 2021. A total of 26 respondents or 26% have purchased shares more than 7 times during the period March 2020 to March 2020. March 2021. From the table above, it can be seen that as many as 51 respondents or 51% of respondents have income in the range of Rp. 3,000,000 to Rp. 4,999,999. A total of 43 respondents or 43% of respondents have income in the range of Rp. 5,000,000 to Rp. 8,999,999. And as many as 6 respondents or 6% of respondents have an income of more than Rp 9,000,000.

IV. Result and Discussion

In this study, the outer model was measured twice. The first evaluation on the outer model is convergent validity. To measure convergent validity, researchers looked at the value of each outer loading. An indicator is said to meet convergent validity if it has an outer loading value > 0.5. This means that the indicators used in the questionnaire are valid and can reflect or represent the variables in question. The results of the first outer model, it is known that the indicators FL11, FL12, RP11, RP21, H12, H31, H32, FL22 and FL32 have outer loading values <0.5. This means that the nine indicators do not meet the conditions of convergent validity, so that in the next analysis, the two indicators will be reduced. In other words, the reduced indicators are considered unsuitable to be applied in this study.

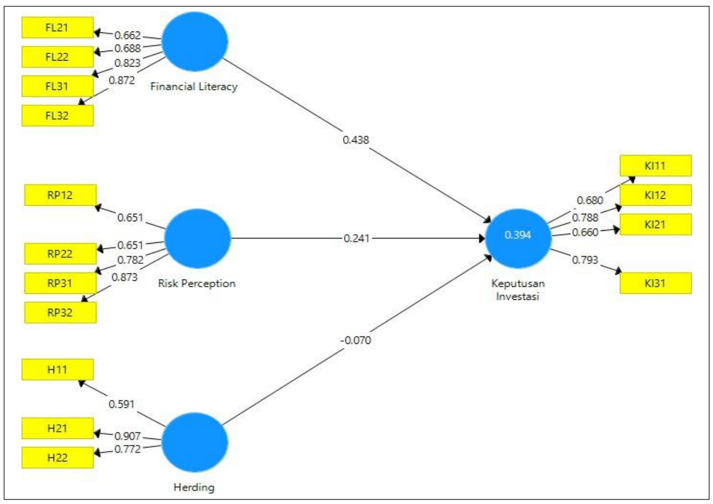

Figure 2. SmartPLS Outer Model Output Results After Deletion

Reflexive indicators in the test of discriminant validity can be seen in the cross-loading or looking at the Fornell-Larcker criterion, between the indicators and their constructs. An indicator can be said to be valid if it has the highest loading factor on the tested construct compared to the loading factor on other constructs. From the SmartPLS output, all variables are declared valid because they have a value >0.7 and are greater than the relationship between other variables. And the test results show the AVE value for all variables has a value greater than 0.5, which means that all variables are said to be valid.

Composite reliability aims to test the reliability of the instrument in a research model and measure its internal consistency and the value must be more than 0.70. The results of the composite reliability test, the output on PLS, all constructs have a composite reliability value> 0.7 which indicates that the construct has good reliability. And Cronbach's Alpha shows reliable results or all variables value >0.5

From the results of the SmartPLS output, the R-Square value of the investment variable is 0.394 or in other words the influence model of financial literacy, risk perception, and herding on investment decisions gives an R-Square value of 0.394. This means that the variables of financial literacy, risk perception, and herding affect investment decisions by 39.4% and 60.6% is explained by other independent variables not examined. After the R-Square test, it is continued with the test of the predictive relevance value (Q2) as a structural model that measures how well the observed values are produced by the model and also the estimated parameters. The output of SmartPLS has a value of 0.189 which is equal to 18.9 or > 0.1. it means that the exogenous latent variable is considered good or in accordance with the explanatory variable that is able to predict the endogenous latent variable. The next test is the Goodness of Fit Model (Gof). The GoF index is a single measurement that is used to validate the combined performance of the measurement model (outer model) and the structural model (inner model). From the GoF calculation, it can be seen that the result is moderate or moderate GoF because the resulting value is greater than 0.25, which is 0.28.

Hypothesis Test Results

This study aims to find out whether the X variables have a significant effect on the Y variable. By looking at the parameter coefficient values and the significant value of T-Statistics in the bootstrapping report algorithm in SmartPLS, the significant value of T-Statistic must be > 1.96 in order to be interpreted as significant.

Table 3. T-Statistics Value Test Results

Hypothesis			T Statistics	Conclusion
H1	Financial Literacy > Investment Decision		4.143	Positive and significant influence
H2	Risk Perception > Investment Decision		2.331	Positive and significant influence
H3	Herding > Investment Decision		1.075	Influential, negative and insignificant

Source: Results of research data 2021

Based on the table above, it is known that the research hypothesis can be answered as follows:

Financial Literacy on Investment Decisions. The table above shows the results of hypothesis H1 that the relationship between financial literacy and investment decisions is significant because it has a t-statistic value of 4.143, which means the value is >1.96. It can be concluded that in this study the hypothesis H1 financial literacy has a significant effect on investment decisions.

Risk Perception of Investment Decisions. The table above shows the results of hypothesis H2 that the relationship between Risk Perception and investment decisions is significant because it has a t-statistical value of 2,331, which means the value is >1.96. It can be concluded that in this study the H2 risk perception hypothesis has a significant effect on investment decisions.

Herding on Investment Decisions. The table above shows the results of hypothesis H3 that the herding relationship to investment decisions is significant because it has a t-statistical value of 1.075, which means the value is <1.96. It can be concluded that in this study the H3 Herding hypothesis has no significant effect on investment decisions.

Based on the results of the analysis using SmartPLS3, the next researcher will describe the discussion in accordance with the designed hypothesis.

The influence of financial literacy on investment decisions.

Based on the results of research on the influence of financial literacy on hypothesis testing, it can be seen that financial literacy has a significant effect on investment decisions for investors in Jakarta. So from these results, it can be concluded that good financial literacy knowledge will bring prosperity in finance. The results of this hypothesis are in line with research by Ummy et al (2018) showing the results that financial literacy affects financial access, meaning that better financial literacy will reduce the financial gaps faced. This is contrary to research conducted by Faris and Nadia (2019) which states that financial literacy has no effect on investment decisions. This is because investors who are lacking in investment decision practice using financial literacy, reduce their caution by trusting investment experts and at one point feel they can control their investments but on the other hand they don't, so they don't think about mastering it.

Related to signaling theory or signaling theory which explains why companies need to provide financial statement information to external parties. The company needs to provide information because there is an imbalance of information owned by company management and company shareholders because the company knows more about the company and its future prospects than outside parties (investors). In addition, it also helps to be considered by potential investors in making decisions about the appropriate amount of funds to be invested in the company after seeing the financial statements provided.

The Effect of risk perception on investment decisions.

Based on the results of the research on the effect of risk perception on hypothesis testing, it can be seen that risk perception has a significant effect on investment decisions for investors in Jakarta. So from these results, it can be concluded that perceiving risk needs to be estimated to minimize losses that will be received in the future. The results of this hypothesis are in line with research by Shadnan (2016) and Samuel et al (2019) concluding that risk perception affects investment decisions. With a high-risk perception or tolerance level with good financial knowledge and literacy will make or produce good investment decisions in the future. Vice versa, if the perception of risk and the level of tolerance is low with poor knowledge and financial literacy, it will result in poor investment decisions in the future.

In connection with the basic theory of Decision Theory and also Behavioral finance which is a science that studies how humans respond and react to existing information in an effort to make decisions that can optimize the rate of return and pay attention to the risks inherent in it.

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V. Conclusion

Based on the results of research analysis and discussion of research results on the influence of financial literacy, risk perception, and herding on investment decisions, it can be concluded that financial literacy has a positive and significant effect on investment decisions for investors in Jakarta for the period March 2020 - March 2021. This means that investors in Jakarta consider that having a better knowledge of financial management, it can support better investment decision-making as well. Risk perception has a positive and significant effect on investment decisions for investors in Jakarta for the period March 2020 - March 2021. This means that investors in Jakarta realize that the more careful they are in calculating and estimating risk in making investments, the better investment decisions will be made. Herding has no, negative and insignificant effect on investment decisions for investors in Jakarta for the period March 2020 – March 2021. This means that there are not many investors in Jakarta who have follow-up behavior and follow the current busy market in making investment decisions. Based on the conclusions from the results of this study, several suggestions can be obtained for investors. received in the future after making an investment decision. Research on the influence of financial literacy, risk perception, and herding on investment decisions hopes that in future research, researchers can examine models with a wider scope of respondents and future researchers are expected to be able to research factors that influence other investment decisions and on other objects that have not been studied in this study.

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