

EFFECT OF HERDING BIAS, OVERCONFIDENCE BIAS AND DISPOSITION BIAS IN INVESTMENT DECISIONS: A STUDY OF INDIVIDUAL INVESTORS IN THE SEMARANG CAPITAL MARKET COMMUNITY

Adam Ma'rifat Muslim¹, Andi Wijayanto², Dinalestari P³

^{1,2,3}Faculty of Social and Political Science, Universitas Diponegoro, Semarang, Indonesia

¹Email: adammarifatmuslim@students.undip.ac.id

Abstract: *This paper focuses on doing explanatory research using a quantitative approach. Specialised in basic linear regression analysis, the investigation was carried out using SPSS 27 Version for Mac software. It may be concluded that the Disposition Bias variable has a positive impact on the investment decision variable. This study examines the beneficial impact of the overconfidence bias variable on the investment decision variable. Furthermore, the variable of investment decision is favourably influenced by the variable of herding bias. Based on these results, the suggestions that can be conveyed by researchers, namely to individual investors who are members of the capital market community in Semarang. To further improve understanding of the capital market and financial planning. It is hoped that investors can be alert to irrational behaviors, thus enabling investors to make more rational and planned decisions.*

Keywords: *Behavioural Finance; Stock; Investment Decision; Investor*

Introduction

Investing in the capital market, in particular, has always been a hot topic of discussion in the era of globalization as it is now. Any country's economic fundamentals, developed or developing, now include capital market investments, including Indonesia. Even though the capital market in Indonesia has developed rapidly in recent times, Investors are driving the expansion of this industry with the aim of generating a beneficial impact on the Indonesian economy. Based on this assessment, the Composite Stock Price Index (IHSG) of the Indonesian Stock Exchange is being monitored.

Investment is one of the needs today. Tandelilin (2010) it is stated that speculation is the liability of a certain amount of money or assets at this time in order to make a profit from now. To benefit from financial backers must make wise business choices. Financial backers need to take pains to think about the profits being made and the economists' ongoing bets Jogiyanto (2010) This expresses that return and chance are decidedly related to the end goal that the more prominent the normal return, the more important the gamble looked at by financial backers. Higher dangers increase the probability that speculation will fall flat.

Decision-making theory has undergone a long evolution in recent decades. The assumption of rationality expected utility theory that has been used in explaining decision-making theory began to be criticized. Some empirical research shows that economic agents not only use their rationality in making decisions, but are also influenced by behavioral factors (Tversky & Kahneman, 1988; Gill, Khurshid, Mahmood, & Ali, 2018; Cartwright, 1998). The findings suggest that economic agents can provide emotional responses when making investment decisions, potentially causing a number of psychological biases that lead to irrational behavior.

Theoretical Study

Investor Behavior

The theory of this study is the theory investor behavior (investor behavior), investor behavior is a study that understands that investor decision making is by combining psychological factors and micro-level investments (individual decision processes of groups and macro perspectives) and macro perspectives (the role of financial markets), with decision making combining quantitative (objective) and qualitative (subjective) aspects based on specific features of financial products, Investor behavior also assesses cognitive and affective factors revealed By individualist, investors, and brokers during monetary preparation and speculation, the executives, where society ultimately completes its own practice, arrive at conclusions and establish conclusions about the activity, and have confidence in its character and tendencies. (Baker, 2014).

Herding Bias (X1)

According to Baddeley (2012) in his theory of herding behavior states that under uncertain circumstances, It would be more reasonable to accept that other people are more knowledgeable than us and should do what they have done if we come to terms with the fact that our judgement is incorrect. Luong & Ha (2011) stated that individual investors have a higher tendency to follow the decisions of other investors compared to institutional investors.

Overconfidence Bias (X2)

Overconfidence bias can be defined as irrational beliefs in thought as well as ability, which have emotional and cognitive factors. An overconfident investor believes that investors have an above-average knack for determining which stocks to take, when some research suggests these statements are likely false. Pompian (2012). Another definition of overconfidence is excessive confidence in knowledge and insight possessed when making an investment.

Disposition Bias (X3)

The disposition effect is an instance of atypical stock market behavioural patterns. In contrast, investors who participate in this disposition impact choose not to sell their assets when stock prices decrease. Rather, it is advisable to retain the stock, anticipating a future increase in its price. The capital market exhibits inefficiency due to the selective choices made by some investors (Ervina Sutanto, 2015).

Investment Decisions (Y)

Investment decision is a decision (sell, buy, or maintain) taken by investors related to investing in shares owned (Puspitaningtyas, 2012). Sharpe (1964) states that every investor wants to get the desired rate of return from their investments by making optimal investment decisions. In making investment decisions, an investor can make decisions rationally or irrationally.

Research Hypothesis

This study uses several indicators for each variable. Each indicator has each question item presented that is described as follows:

Table 1. Indicators

Variable	Indicator	Items
Herding Bias	Following the decisions to buy or sell share of other Investors	The decision to purchase or selling shares influence from the decisions of other investors
	Stock selection is based on other people's choices	The decision to choose the type of stock is in influenced by other people's choices
	Stock selection is based on the volume of other people's shares	Share volume decisions are based on the share transaction volume of other investors
	Speed of Herding behaviour	The speed of reaction to changes in investment decisions of other investors and following them
Overconfidence Bias	Perception of self-ability in investing	I am an experienced investor
	Perception of personal portfolio performance capabilities	I feel about the average performance of my investment portofolio is way better from the stock market
	Perception will have good decision-making ability	I feel my actions and knowledge influence the action while I buy a superior investment
	Perception has more capabilities than financial advisors	I think I'm confident more my own investment opinion rather than on the financial analysis opinion
	Perception of having <i>excessive</i> trading skills	My past investment success is a result of the investment skills I have
Disposition Bias	The tendency to withhold responding to excessive stock information	I tend to sell profitable stock too soon I tend not to want to admit losses
	Tendency to admit losses	I tend not to want to admit losses
	The perception that share prices will fall again	I sold profitable shares because I was afraid that the share price would fall again
	Tendency to hold loss-making stocks	I don't lose stocks until I reach BEP
	Tendency to place importance on losses	Gains from ultiple stock transactions cannot compensate for a single stock transaction loss
	Investment Decision	Investment choices

	aside some my income to invest in stock rather than saving
Management Capital	I will invest a larger amount of money in shares
Future investment expectations	The uncertainty of whether the market will rise or fall keeps me from buying stocks I prefer to save money because I'm never sure when something will collapse and I'll need money

Method

Based on the background and problem formulation existing data explained above, this research uses the quantitative method under the type of explanatory research. The variables used in this research are Herding Bias (X1), Overconfidence Bias (X2), and Disposition Bias (X3) as independent variables and Investment Decision (Y) as dependent variable. The population in this research which is investors who have made investment decisions on stock market and members of Semarang capital markets community, the research sample of this study is 100 individual investors from KSPM FEB Undip, KSPM FEB Unimus, KSPM CMC Polines, and KSPM UNSSAF Unnes. The sampling technique of this researcher used quantitative data which use a questionnaire from the respondents. Quantitative data can be measured or calculated directly, in the form of information or explanation expressed in number or the form of numbers. The data will be processed with the SPSS program as a data calculation tool.

Hypothesis

Hypothesis Model that is used for this research are as follow:

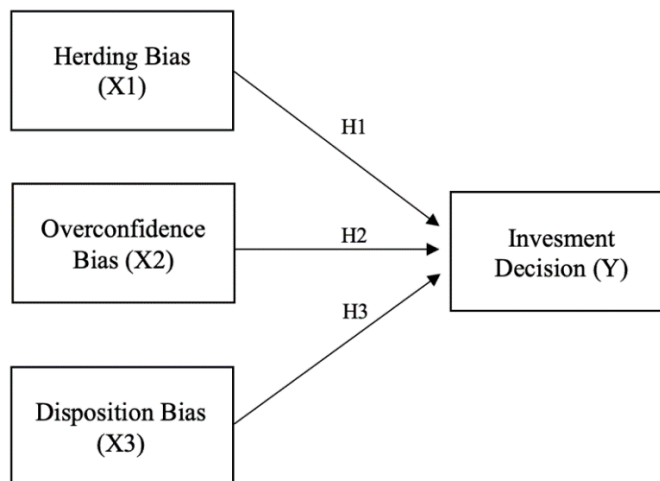


Figure 1. Hypothesis Model

H1: Herding Bias (X1) has a significant effect on Investment Decision.

H2: Overconfidence Bias (X2) has a significant effect on Investment Decision.

H3: Disposition Bias (X3) have a significant effect on Investment Decision.

Results and Discussions

The primary objective of this research was to assess the influence of Herding Bias, Overconfidence Bias, and Disposition Bias on individual investors' decisions in the Semarang capital market community. The research employed a structured questionnaire and analyzed responses from 100 individual investors using SPSS 27.

Validity Test

A questionnaire is said to be valid if r count is greater than r table ($r_{count} > r_{table}$), it is invalid if r count is less than r table ($r_{count} < r_{table}$). In this research r count is calculated by using SPSS, while the value of r table is obtained by calculating the degree of freedom ($df = n - 2$). This study used 100 samples, so $df = 100 - 2 = 98$, with a probability level of 5%, so it is known that the r table is 0.1966. The validity test of this research resulting that all question items of all variables are valid.

Reliability Test

After the validity test, then reliability testing to measure the results of a measurement and it can be trusted or not. Reliability tests are also used to see if data are suitable of data at different times. In reliability measurement using the statistical test Cronbach Alpha (α) variable is declared reliable if result $\alpha > 0.60$ then it is reliable and result $\alpha < 0.60$ then it is unreliable.

Table 2 Reliability Test Result

Variable	Cronbach's Alpha	Alpha	Information
Herding Bias	0,867	0,6	Reliable
Overconfidence Bias	0,835	0,6	Reliable
Disposition Bias	0,794	0,6	Reliable
Investment Decision	0,830	0,6	Reliable

Source : Primary data, processed (2024)

Hypothesis 1

The data analysis conducted from the questionnaire on the effect of Herding Bias (X1) on investment decision (Y) involves the utilization of basic regression analysis and a significance test (t test)

Table 3 Simple Linear Regression Analysis Herding Bias Towards Investment Decisions

Model	Coefficients			t	Sig.
	Unstandardized Coefficients	Standardized Coefficients			
	B	Std. Error	Beta		
1 (Constant)	10.868	1.260		9.013	.000
X1	.254	.085	.288	2.979	.004

a Dependent Variable: Y

Source: Primary data, processed (2024)

Based The analysis of the influence of Herding Bias (X1) on investment decision (Y) using basic regression analysis and significance testing (t-test) is presented in Table 3. The table shows that the regression coefficient for financial literacy is 0.254 with a significance value of 0.004, indicating a positive effect on investment preference. The simple linear regression equation derived is $Y = 10.868 + 0.254X$, where Y represents investment decision and X1 represents

Herding Bias. The t-test results show a t value of 2.979, greater than the critical value of 1.658, leading to the rejection of the null hypothesis and confirming a significant impact of financial literacy on investment preference. It can be concluded that hypotheses 1 is **Accepted**.

Hypothesis 2

The data analysis conducted from the questionnaire on the effect of Overconfidence Bias (X2) on investment decision (Y) involves the utilization of basic regression analysis and a significance test (t test)

Table 4 Simple Linear Regression Analysis Overconfidence Bias Towards Investment Decisions

Model	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	6.157	1.025		6.007	.000
X2	.428	.052	.638	8.206	.000

a Dependent Variable: Y

Source: Primary data, processed (2024)

Based The analysis of the influence of Overconfidence Bias (X2) on investment decision (Y) using basic regression analysis and significance testing (t-test) is presented in Table 4. The table shows that the regression coefficient for financial literacy is 0.428 with a significance value of 0.000, indicating a positive effect on investment preference. The simple linear regression equation derived is $Y = 6.157 + 0.428X$, where Y represents investment decision and X2 represents Overconfidence Bias. The t-test results show a t value of 8.206, greater than the critical value of 1.658, leading to the rejection of the null hypothesis and confirming a significant impact of financial literacy on investment preference. It can be concluded that hypotheses 2 is **Accepted**.

Hypothesis 3

The data analysis conducted from the questionnaire on the effect of Diposition Bias (X3) on investment decision (Y) involves the utilization of basic regression analysis and a significance test (t test)

Table 5 Simple Linear Regression Analysis Disposition Bias Towards Investment Decisions

Model	Coefficients				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	8.554	1.370		6.246	.000
X1	.299	.069	.400	4.324	.000

a Dependent Variable: Y

Source: Primary data, processed (2024)

Based The analysis of the influence of Disposition Bias (X3) on investment decision (Y) using basic regression analysis and significance testing (t-test) is presented in Table 5. The table shows that the regression coefficient for financial literacy is 0.299 with a significance value of

0.000, indicating a positive effect on investment preference. The simple linear regression equation derived is $Y = 8.554 + 0.299X$, where Y represents investment decision and X3 represents Disposition Bias. The t-test results show a t value of 4.324, greater than the critical value of 1.658, leading to the rejection of the null hypothesis and confirming a significant impact of financial literacy on investment preference. It can be concluded that hypotheses 3 is **Accepted**.

Conclusions:

By the previous analysis of 100 respondents of Capital Market Community Investors in the city of Semarang, the following are the conclusions obtained by researchers, namely:

1. The Herding Bias variable from here. The conclusion here which there's exist. A significant impact from Herding Bias to the investment decision. This result from opinions which state that, individual investors are more likely to follow stock purchase or sale decisions from the opinions of other investors, then stock selection tends to be based on the choices of others, and stock selection is based on the volume of other people's shares, which means that investment decision opinions are based on selection strategies based on the volume of other people's shares. The rest some items need to be corrected or added to Herding Bias behavior, namely, the speed of Herding Bias behavior is not fast enough, which means that investors do not quickly respond to opinion herding behavior or Herding bias behavior.
2. Overconfidence Bias variable based on the analysis in this study produces results that can be categorized as good result. This conclusion defined as there is a significant positive impact among the variables. This result is based on the opinion of respondents who stated that in investing in stocks, respondents believe that they have a perception of their ability to make good investment decisions. This means the behavior of how a person or investor sees his ability to choose stocks that have potential, to provide good or profitable results. Then respondents believe they have excessive trading capabilities and have the perception of having the ability and knowledge in the capital market. Several indicators give the interpretation that investors lack self -ability in investing. Then do not have confidence in the perception of the ability of personal portfolio performance and have confidence in the perception of the ability of more than financial advisors.
3. The Disposition Bias variable based on the analysis in this study produces results that can be categorized as good result. This conclusion defined as there is a significant positive impact among the variables. This result is based on the opinion of respondents who stated that in investing in shares investors feel they have experience and can show the potential of their investment expertise. able to release and show the potential of their investment expertise so that investors are encouraged to invest in stocks. Then respondents feel confident in their personal investment opinions compared to financial analysis, then respondents feel their investment decisions are successful because of their ability to analyze the shares they have. However, some indicators provide interpretations, namely feeling that the average performance of their investment portfolio is better than the stock market, then investors feel that it is not very influential in buying superior stocks, and feel that action and knowledge affect the results. And respondents do not feel that past investment success is the result of their investment expertise.

Suggestions:

By the previous chapter which discusses variables in the point of view of investors from the capital market group in Semarang City, there are suggestions given to investors in the capital market group in Semarang City as decision making and for further research, the following suggestions can be conveyed by researchers:

1. From the table, we can conclude that discusses the Herding bias of capital market group respondents in Semarang City. can be classified as sufficient, but looking at the average indicator of the Herding Bias variable in the capital market group in Semarang City, shows that there are indicators whose values are below the average score. The indicator is, that I often react quickly to changes in other investors' stock investment decisions and follow their reactions in making investment decisions, therefore it is hoped that investors will better control their emotions and study diligently to understand them, not be easily influenced by illogical investment decisions and be more active in discussing with communities that discuss stock investment.
2. From the study here that discusses the Overconfidence Bias of capital market group respondents in Semarang City. can be classified as sufficient, but looking at the average indicator of the Overconfidence Bias variable in the capital market group in Semarang City, shows that there are indicators whose values are below the average score. The indicators are, that I feel the average performance of my investment portfolio is better than the stock market, and I feel more confident in my own investment opinion than the opinion of financial analysis, therefore it is hoped that investors will recognize more limitations. By realizing that nothing is perfect in the stock market and there is always the possibility of error.
3. From the study here discusses the Disposition Bias of capital market group respondents in Semarang City. can be classified as sufficient, but looking at the average indicator of the Disposition Bias variable in the capital market group in Semarang City, shows that there are indicators whose values are below the average score. The indicators are, I feel that my actions and knowledge affect the results, therefore it is hoped that investors will better control their emotions and study diligently to understand them, do not be easily influenced by illogical investment decisions and be more active in discussing with communities that discuss stock investment.
4. That future researchers will better develop the topics in this research variable, especially topics regarding behavioral finance such as Mental Accounting, Regret Aversion, Confirmation Bias, and other behavioral finance theories. Then the author hopes to develop his research subjects, not only capital market groups in Semarang City, but throughout Indonesia. The author realizes that it is difficult to conduct research and find respondents from all over Indonesia, of course, it costs more money and time to do it.

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