Bias of Investor Behavior in Making Investment Decisions in the Capital Market

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Abstract		Original Research Article

Purpose: The long-term goal of this research is to find out the behavior of investors in making investment decisions in the capital market, while the specific target to be achieved is to know the biases of investor behavior in making investment decisions. Investment decision makers do not always behave in a way that is consistent with the assumptions made in accordance with the perception and understanding of the information received, but is strongly influenced by psychological factors. *Research Methodology*: This type of research is descriptive quantitative research. The survey was conducted on investors who are members of the group of young investors. The population of this study is all investors who actively trade in the Bali branch of the Indonesia Stock Exchange. By using a purposive sampling method, namely taking samples by adjusting the research criteria, namely investors who have made transactions in trading on the stock exchange for at least two years. Multiple regressions was used to test the hypotheses that were developed at a significance level of 0.05 percent. *Results*: Investors experience behavioral bias due to the influence of disposition and excessive trust. This circumstance will result in a reduction of their final wealth. The disposition effect influences decision making on investor behavior in the capital market. Investors have a tendency to realize less profits compared to the tendency to realize losses. *Limitations*: The results of this study may not apply to other excluded categories because this research is limited to investors who actively trade in the Bali branch of the Indonesia Stock Exchange. *Contribution*: Investors will be better off if they don't hold their shares for too long when the stock price declines and are not advised to sell profitable shares too quickly. Investor literacy should be improved by understanding information about company fundamentals.
Keywords: Investors, Indonesia Stock Exchange, Capital Market.

1. INTRODUCTION

Investment success is largely determined by how well investors make decisions. Investors must be able to manage their investments with various probabilities that may occur, whether the investment has a large or small return (return), which is determined by how timely it is owned to obtain these benefits (Prosad, 2015). Decision making is a process of selecting the best alternative from a number of available alternatives under the influence of a complex situation. Stock investment decisions are decisions to buy, sell, or maintain ownership of shares. Decision-making theory is based on the concept of satisfaction, that utility is the amount of pleasure or relative satisfaction achieved. Investment decision making will be greatly influenced by the information received (H. Kent Baker, 2014). Investors will consider financial information factors in making decisions. Predicted financial information has relevance value, because financial information is statistically related to market value.

Financial behavior in this study intends to understand investor behavior in making investment decisions. Decision-making theory assumes that individuals as decision makers behave rationally. Quantitative modeling begins to be questioned when standard financial theory is unable to explain financial cases, indicating that decision making is not a static deterministic case because it is related to psychological behavioral factors. Investor actions that are sometimes uncontrollable are driven by psychological factors, such as fear, greed, and panic (Jegadeesh, 1995). Investors are influenced by emotions, subjective thoughts and the desire to follow others. Since the 1990s, the results of research using standard financial theory are no longer able to contribute in explaining the inconsistencies that occur in the capital market (Javed, 2017). This

condition can be seen in phenomena in the capital market or financial market that are contrary to standard financial theory. The fact that there are anomalies in the capital market indicates that there are abnormal returns for some investors. Realizing this, researchers began to connect the phenomena that occur with aspects of behavior (behavioral finance), which is one of the determining factors in making decisions in the capital market (Atif, 2014).

Inappropriate and incapable investor behavior in choosing and making investment decisions is influenced by many factors so that there is a tendency for irrational investor behavior or known as behavioral biases in the decision- making process. Shefrin (2007) states that psychological aspects that participate in decision making include bias heuristics and framing effects. Kengatharan (2014) states that biased behavior of investors and potential investors that can affect decision making includes herding, heuristics, and investor attitudes towards risk (prospect). Behavioral bias can be interpreted as the inaccuracy and inability of investors to be rational in the process of choosing investment decisions which results in non-maximum profits and even loss of opportunities to obtain the expected returns from their investments (Shefrin, 2011). In addition, behavioral bias also causes the market to become inefficient. In psychological theory, basic needs will always encourage a person to behave and make decisions.

Psychological factors also shape the financial behavior of investors in buying and selling shares in the capital market, triggering behavioral bias (Sitinjak, 2012). Kim and Nofsinger (2008) revealed that differences in a person's behavior are often associated with demographic conditions, cultural differences, life experiences and education. (Wamae, 2013) stated that the behavioral bias of people in Africa is higher than the behavioral bias of people in Asia. Prosad *et al.,* (2015) examined the behavioral biases of investors in India including overconfidence, excessive optimism, herding and disposition effects. The results show that behavior bias is influenced by age, profession and trading frequency. Overconfidence behavior is the most common bias behavior of Indian investors, followed by optimism, herding and disposition effects.

Based on the phenomena and results of studies from previous researchers, this study aims to analyze the bias of investor behavior in making investment decisions on the Indonesian stock exchange. It is very important to identify the types of behavioral financial bias in order to find out the factors that cause behavioral bias and its influence on investment decisions. Therefore, it is necessary to carry out further studies that examine the bias of investor behavior in Indonesia, because the bias of investor behavior will shape the individual's choice of portfolio investment decisions on the stock exchange.

Based on this background, the specific research objectives can be formulated as follows. Analyze investor behavior bias in making decisions in the capital market and detect whether dispositional, herding and overconfident behavioral biases are found on investor behavior in the capital market.

2. LITERATURE REVIEW
2.1 Behavioral Finance
Behavioral finance is a science that studies how humans take action in the investment decision-making process in response to the information they obtain. Investors do not always behave rationally and do not deviate and are able to be modeled quantitatively. The goal of behavioral finance is to understand and predict the systematic implications of financial markets from a psychological perspective. However, Olsen emphasized that so far there is no integrated behavioral finance theory, and so far what has been found in the literature is limited to identifying the attributes of decision making in investing in the capital market.

According to Ricciardi, behavioral finance is a discipline in which the interaction of various disciplines (interdisciplinary) is inherent and continuously integrates so that the discussion cannot be isolated. Behavioral finance is built on various assumptions and ideas from behavioral economics. The involvement of emotions, traits, preferences and various kinds of things that are inherent in humans as intellectual and social beings will interact to underlie the emergence of a decision to take an action.

2.2 Herding Behavior
(Bikhchandani, Sushil; Sunil, 2001) states that in making decisions, individuals are often influenced by the decisions of others, for the same thing herding behavior applies in the capital market. (Lindhe, 2012) states that herding is investor behavior that often follows the direction of market sentiment or follows advice from financial experts. (Banerjee, 1992) defines hedging behavior as everyone who does what everyone else does, even though their private information suggests them to do something different. Such behavior is considered as rational behavior among unskilled investors where they follow the behavior of more skilled investors instead of using proprietary information. The implication of this behavior is that a group of investors will follow market consensus at the same time.

Herding behavior cannot be explained by the foundations of theoretical analysis and must rely on empirical evidence that determines herding behavior in the field (Hwang & Salmon, 2004). Researchers in this field state that the existence of herding behavior will have implications for the CAPM of an asset, because herding behavior will have an effect on stock price movements and will affect the return and risk of the

stock. In the context of asset pricing, if market participants tend to follow market sentiment, it will cause asset prices to deviate from their fundamental values (Lindhe, 2012). As a result, investors will trade inefficiently. Herding behavior by market participants by following trends will exacerbate the volatility of stock returns (Bikhchandani, Sushil; Sunil, 2001).

2.3 Disposition Effect

The disposition effect is a form of investor deviant behavior that occurs in the capital market. Where when the stock price falls, investors who exercise this disposition effect do not sell their shares, but maintain these shares, with the hope that a few moments later the stock price will rise again. Odean (1998a) empirically examines the disposition effect in the U.S. stock market. Using a random sample of 10,000 accounts from discount brokerage houses for the period 1987-1993, comparing the ratio of realized profits to total profits (PGR) to the ratio of realized losses to total losses (PLR). If the PGR ratio is higher than the PLR it means the investor is selling winners too soon and holding on to worthless stocks for too long. Chen, Kim, Nofsinger, and Rui (2007) investigated brokerage account data from China. They find that investors in China suffer from a disposition effect and that the magnitude of the bias is higher than in the US Odean. Weber and Zuchel (2001) also set up an experiment to study whether previous outcomes influence risky choices. The authors found an increase in risky behavior after a loss, which corresponds to a disposition effect.

There are two main explanations for the disposition effect that go along with rational behavior. First, the disposition effect may be due to portfolio rebalancing. Second, it could be justified by investors' expectations of average returns. Odean (1998a) finds that neither of these explanations is plausible. He concluded that traders were systematically mistaken about their beliefs.

2.4 Overconfidence

Emotional bias can result in investors making less than optimal decisions because emotional bias is rarely realized in the decision-making process. Emotional bias has to do with how a person feels in making a decision compared to how they think. Emotional bias, among others, is related to overconfidence bias. Overconfidence bias often occurs in novice investors who want to be fast and want to get high returns with confidence in their own convictions. Overconfidence is a condition in which feelings are overly confident about how well the individual understands the limits of their knowledge and abilities (Supramono & Wandita, 2017). The bias in overconfident behavior can influence investment decisions.

Hypothesis
The Effect of Disposition The effect of bias on investment decisions

The disposition effect is a form of deviant behavior from investors that occurs in the capital market. Where when the stock price falls, investors who exercise this disposition effect do not sell their shares, but maintain these shares, with the hope that a few moments later the stock price will rise again. Such decision-making by some investors makes capital market conditions inefficient. Another study investigating the disposition effect states that investors' trading characteristics, disposition effects and their relationship to performance in Estonia Talpsepp (2010). Grinblatt and Keloharju (2000) found evidence of a disposition effect using investor transaction data in Finland. Chen, Kim, Nofsinger, and Rui (2007) investigating brokerage account data from China found that investors in China experience a disposition effect and that the magnitude of the bias is higher than in the US Odean (1999) and Barber and Odean (2000, 2001, 2002). Weber and Camerer (1998) conducted an experiment to determine whether investors exhibit a disposition effect. The author finds that investors tend to continue to lose and sell stocks that are increasing in price. Weber and Zuchel (2001) studied whether prior outcomes influence risky choices. The authors found an increase in risky behavior after a loss, which corresponds to a disposition effect. Fernandes, Pena, and Tabak (2008) conducted a similar experiment across countries and found that prior outcomes influenced risk choices in the form of loss aversion. Oehler, Heilmann, Volker, and Oberlande (2002) investigated 490 investors in 3 stock markets and concluded that the majority of them exhibited a disposition effect. There are two main explanations for the disposition effect that go along with rational behavior. First, the disposition effect may be due to portfolio rebalancing. Second, it could be justified by investors' expectations of average returns. Odean (1998a) finds that neither of these explanations is plausible. He concluded that traders were systematically mistaken about their beliefs. Based on this description, the third hypothesis is formulated as follows:

H1: The Disposition effect has a positive effect on stock investment decisions.

Herding effect on investment decisions

Investors in making decisions are often influenced by the decisions of others, so for the same thing herding behavior applies in the capital market (Bikhchandani, Sushil; Sunil, 2001). Herding is investor behavior that often follows the direction of market sentiment or follows advice from financial experts (Lindhe, 2012). (Banerjee, 1992) defines hedging behavior as everyone doing what everyone else is doing, even if private information suggests doing something different. Such behavior is considered as rational behavior among unskilled investors where they follow the behavior of more skilled investors instead of

using proprietary information. The implication of this behavior is that a group of investors will follow market consensus at the same time. Herding behavior cannot be explained by the foundations of theoretical analysis and must rely on empirical evidence that determines herding behavior in the field (Hwang & Salmon, 2004). Researchers in this field state that the existence of herding behavior will have implications for the CAPM of an asset, because herding behavior will have an effect on stock price movements and will affect the return and risk of the stock. In the context of asset pricing, if market participants tend to follow market sentiment, it will cause asset prices to deviate from their fundamental values (Lindhe, 2012). As a result, investors will trade inefficiently. Herding behavior by market participants by following trends will exacerbate the volatility of stock returns (Bikhchandani, Sushil; Sunil, 2001). Based on this description, the third hypothesis is formulated as follows:

H2: Herding bias has a positive effect on investment decisions.

The effect of overconfidence bias on investment decisions

Overconfidence is a feeling of having too much confidence in the ability or knowledge one has in making investments. Overconfidence is an unwarranted belief in one's intuitive reasoning, judgment, and cognitive ability (Budiarto & Susanti, 2017). In general, this overconfidence bias occurs among young male investors and investors with portfolios and low income levels (Bulent & Yilmaz, 2015). Investors are exposed to overconfidence bias due to the limited information received, which makes investors feel that they have the ability and knowledge that exceeds other investors (Pompian, 2006). Behavioral finance theory believes that the behavior of investors, including students, in making their investment decisions is often influenced by psychological and emotional factors and creates an overconfidence bias that makes investment decisions taken irrational. Investors with high overconfidence behavior will make them more ambitious in making investments (Novianggie & Asandimitra, 2019). If a student tends to have excessive confidence in the decisions he makes, then that person will underestimate or not pay attention to the risks faced. This overconfidence behavior will cause investors to bear greater risks in making investment decisions. Research that was conducted by Addinpujoartanto and Surya (2020); Princess and Wisdom (2020); Dewi and Krisnawati (2020); Ady and Hidayat (2019); Rafinza (2018); Pradikasari and Yuyun (2018); Budiarto and

Susanti (2017); and Nugraha (2016) stated that the overconfidence bias has a significant effect on investment decisions. Based on this description, the third hypothesis is formulated as follows:

H3: Overconfidence bias has a positive effect on investment decisions.

3. METHODOLOGY

This type of research is descriptive quantitative research. The survey was conducted on investors who are members of the group of young investors. The population of this study is all investors who actively trade in the Bali branch of the Indonesia Stock Exchange. The sample selection method used was purposive sampling method, namely sampling with a technique adapted to the research objectives where the sample used had certain criteria that were determined based on the objectives (Ghozali, 2012). The sample selection criteria in this study are investors who have traded in stock exchanges for at least two years.

This study uses primary data with a survey method. Data obtained directly from the research object and collected by distributing questionnaires. The indicators in the questionnaire were adopted from indicators that had been used by previous studies, namely Kengatharan and Kengatharan (2014) and Mahmood *et al.,* (2016) for indicators of herding behavior variables, overconfidence and investment decisions. For the disposition effect variable using the indicators used by Sitinjak and Ghozali (2012).

Each statement in the questionnaire was measured using a Likert scale of one to five, with the answer points: (1) strongly agree; (2) disagree; (3); quite agree; (4) agree; while scale (5) strongly agree. The questionnaire is presented in online form via Google form. Questionnaires were distributed online via Whatsapp social media. The variables used in this study consist of four independent variables and one dependent variable as follows. Independent variables (independent): Disposition Effect (ED), Herding Behavior (HE), Overconfidence (OC). The dependent variable is Investment Decision (KP). Multiple regressions were used to test the hypotheses that were developed at a significance level of 0.05 percent.

4. FINDINGS AND DISCUSSION

In Table 1 the following will present the characteristics of the respondents in this study:

Table 1: Characteristics of Respondents

No.	Characteristics	Classification	Total (people)	Percentage (%)
1	Gender	Man	32	35,6
		Woman	58	64,4
	Total		**90**	**100**
2	Age	18 – 19 year	19	21,1
		20 – 21 year	34	37,8

No.	Characteristics	Classification	Total (people)	Percentage (%)
		22 - 23 year	22	24,4
		24 – 25 year	15	16,7
	Total		**90**	**100**
3	Origin of Securities	Sinar Mas Securities	1	1,1
		Philips Securities	25	27,8
		Mirae Asset	3	3,3
		Indo Premier Securities	11	12,2
		BNI Securities	17	18,9
		Panin Securities	33	36,7
	Total		**90**	**100**

Source: Primary data processed, 2021

The data in this study came from primary data, namely the questionnaire. The questionnaire was made in the form of a Google form and distributed online via WhatsApp. Respondent characteristics are respondent data collected to determine the profile of research respondents. This study used a sample of 90 investors in Bali as a sample.

The normality test was carried out to find out whether the data from the sample met a normal distribution or not. Table 2 below shows the results of the normality test:

Table 2: Normality Test Results

Variable	Total Sample	Significant
Investation decision	90	0.865

Source: Primary data processed, 2021

A data can be said to be normally distributed if the significance level is greater than 0.05. Seen in Table 2 the investment decision variable (Y) shows a significance number of 0.865 which means that 0.865 > 0.05 so it can be concluded that the data from the investment decision variable with 90 samples is normally distributed or meets the normality test requirements.

Table 3: Multicollinearity Test Results

Model (Independent Variable)	Tolerance	VIF
Investation decision	0.595	1.680
Securities Disposition	0.918	1.089
Herding	0.922	1.081
Overconfidence Bias	0.661	1.513

Source: Primary data processed, 2021

Based on the results of the multicollinearity test in Table 3, the tolerance value for all independent variables is > 0.1 and the VIF value is < 10. So it can be said that the regression model in this study is multicollinearity free or it can be said that there is no correlation between the independent variables (independent) in this research.

Table 4: Heteroscedasticity Test Results

Model (Independent Variable)	Significant
Investation decision	0.280
Securities Disposition	0.669
Herding	0.997
Overconfidence Bias	0.994

Source: Primary data processed, 2021

Based on the results of the heteroscedasticity test in table 4, it shows significant values for all independent variables > 0.05, so it can be said that the regression model in this study did not have heteroscedasticity.

The F test (simultaneous test) in this study aims to examine the effect of the independent variables consisting of effect disposition, herding and overconfidence bias simultaneously or simultaneously on the dependent variable, namely investment decisions. Table 5 below shows the results of the simultaneous test in the study:

Table 5: F Test Results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	620.615	7	88.659	8.123	.000b
Residual	894.985	82	10.914		
Total	**1515.600**	**89**			

Source: Primary data processed, 2021

Based on the results of the F test (simultaneous test) in Table 6 it shows that the F value is 8.123 with a significance of 0.000. If the F-count significance value is less than 0.05, the decision H0 is rejected, so it can be said that there is influence from the effect disposition, herding and overconfidence bias variables simultaneously on the investment decision variables of students at the Indonesia Stock Exchange.

Table 6: Multiple Linear Regression Analysis

Model	Coefficientsa		Standardized Coefficients	t	Sig.
	Unstandardized Coefficients				
	B	**Std. Error**	**Beta**		
1 (Constant)	10.126	4.325		2.341	.022
X1	-.119	.167	.078	.713	.008
X$_2$	-.076	.109	.073	.692	.001
X3	.295	.108	.284	2.722	.008

Source: Primary data processed, 2021

From table 6 above, the regression equation is obtained as follows:

$$Y = 10.126 - 0.119X1 - 0.076X3 + 0.295X4$$

The following analysis is based on the above regression equation:

A positive constant value indicates a positive effect of the independent variable increasing or having an effect in one unit, so the dependent variable, namely investment decisions, will also increase. It means that the investment decision will be worth 10.126 if the dispositional variables, the effects of bias, herding bias and overconfidence bias, are equal to zero.

The regression coefficient of the bias effect disposition (X1) is -0.119, meaning that if the effect disposition variable (X1) changes by one unit, the investment decision variable (Y) will change by -0.119, assuming that the other independent variables of the regression model are constant. The positive sign on the value of the regression coefficient indicates that the effect disposition variable has a non-unidirectional relationship to the investment decision variable, meaning that if the investor effect disposition bias increases, the investment decisions made by investors will be worse. The tcount value for the effect disposition variable is 0.713 greater than the t table value of 0.172 with a significance value (sig) of 0.008 <0.05 which indicates that the effect of financial literacy on investment decisions is significant negative, so H1 is accepted.

The herding bias regression coefficient (X4) is -0.076, meaning that if the herding bias variable (X4) changes by one unit, the investment decision variable (Y) will change by -0.076 assuming that the other independent variables in the regression model are constant. The negative sign on the value of the regression coefficient indicates that the herding bias variable has a non-unidirectional relationship to the investment decision variable, meaning that the level of herding bias owned by investors is able to influence the investment decisions made by investors. The calculated t value for the overconfidence bias variable of 0.692 is greater than the t table value of 0.172 and a significant value (sig) of 0.001 <0.05 indicates that the effect of the Overconfidence bias factor on investment decisions is significantly positive, so H2 is accepted.

The overconfident bias regression coefficient (X4) is 0.295, meaning that if the overconfident bias variable (X4) changes one unit, the investment decision variable (Y) will change by 0.295 assuming that the other independent variables in the regression model are fixed. The positive sign on the value of the regression coefficient indicates that the overconfident bias variable (X4) has a unidirectional relationship to the investment decision variable, meaning that the level of overconfident bias owned by investors is able to influence investment decisions made by investors. The calculated t value for the overconfident bias variable of 2.722 is greater than the t table value of 0.172 and a significant value (sig) of 0.008 <0.05 indicates that the effect of the Overconfidence bias factor on investment decisions is significantly positive. So that H3 is accepted.

5. DISCUSSION OF FINDINGS
Effect of disposition effect on investment decisions

The results of this research show that the disposition effect influences decision making. Investors have a tendency to realize less profits compared to the tendency to realize losses. The proportion of realized

gains (losses) is measured by the total realized gains (losses) divided by the total realized gains (losses) and gains (losses). Investors in Indonesia experience behavioral bias due to the influence of excessive disposition and trust. This will result in a reduction in their final wealth. Investors are better off, if they don't hold stocks too long and sell winning stocks too quickly, and if they don't trade too much. This goal can be achieved by increasing the sophistication of investors. Investor literacy can be increased by educating the younger generation. Such an approach is used in many developed countries.

Influence of Herding on Investment Decisions

Herding behavior, according to Christy and Huang (1995) occurs when the market has high price movements (volatility). According to behavioral finance theory, when there is high price movement (volatility), investors tend to ignore fundamental analysis and tend to follow market sentiment. When herding occurs, the value of individual stock returns will not deviate far from market returns, which makes the dispersion of returns small. So it can be concluded that there is no herding behavior on the stock market in Indonesia. The results of this study are in line with the results of research conducted by Chandra (2012), Loh and Araral (2013) who found no indications of herding on the Indonesian stock market, but are in contrast to the results of research conducted by Chiang and Zheng (2010). The difference in results is due to differences in countries and study time periods.

According to Chang, *et al.,* (2000) herding behavior is closely related to the minimum quantity and quality of information regarding macroeconomics and microeconomics, especially company fundamentals. This situation has resulted in market players only using macroeconomic information as the basis for making investment decisions. Meanwhile, there were no indications of herding, one of which was due to the fact that information on macroeconomics and microeconomics, especially on company fundamentals, had been properly and maximally published by the financial authorities of a country and by issuers. Some of the information needed by investors in conducting fundamental analysis is the company's financial statements. Information from financial reports that can be used as a basis for making investment decisions related to company wealth, company profitability and other economic transactions that can affect company wealth and profitability. With the maximum availability of microeconomic and fundamental company information, investors do not only use macroeconomic information as the basis for making investment decisions, but also make fundamental analysis of the company the most important information base for decision making.

Furthermore, there were no indications of herding behavior in a stock market, possibly due to the increasing quality and investment knowledge of market participants (Chiang and Zheng, 2010). The quality and knowledge in question is regarding the analysis of macroeconomics and microeconomics, especially the fundamental analysis of companies. Information regarding company fundamentals in question is related to company wealth, company profitability and other economic transactions that can affect company wealth and profitability.

The increasing knowledge and investment quality of market participants will make investment decisions more heterogeneous in the stock market. If investment decisions are increasingly heterogeneous, it will reduce herding behavior or clustered patterns in investment decisions on the stock market.

The Effect of Overconfidence on Investment Decisions

The effect of Overconfidence bias has a direct relationship with investors' investment decisions or in other words, if the Overconfidence bias is high, investment decisions will tend to increase. The overconfidence behavior of an investor influences investment decisions, where the higher the overconfidence, the more confident investors will be in placing their funds in an investment even though the investment is classified as an investment that has a high risk.

Based on behavioral finance theory, which includes psychological aspects in making decisions, this overconfidence behavior can cause bias and illogical actions in making investment decisions. When making an investment, an investor does not only consider the prospects, returns or risks that will be received from an investment but is also still influenced by psychological factors that greatly determine investment decisions, so that investment decisions can be made irrational. Overconfidence bias makes investors have excessive confidence when predicting the future so that it will affect the investment decisions they make.

Errors that can arise when an investor, including students, make investment decisions based on overconfidence bias, the student will trade excessively because he believes he has adequate skills even though he doesn't actually have them. In addition, students also overestimate the results of their investments; on the contrary, they underestimate the risks, so they do not carry out an analysis of possible losses arising from the investment decisions taken. As a result of the influence of overconfidence bias in making investment decisions, students also do not diversify their stock portfolios. These results are in accordance with several studies that have been conducted by Putri and Hikmah (2020); Addinpojoartanto and Surya (2020); Dewi and Krisnawati (2020); Ady and hidayat (2019); Nadya and Lutfi (2018), Pradikasari and Yuyun (2018); as well as research conducted by Budiarto and Susanti (2017).

6. CONCLUSION AND RECOMMENDATIONS

From the results of the research discussion, it can be concluded that investors experience behavioral bias due to the influence of excessive dispositions and beliefs. This circumstance will result in a reduction of their final wealth. The disposition effect influences decision making on investor behavior in the capital market. Investors have a tendency to realize less profits compared to the tendency to realize losses. There were no indications of herding behavior in the capital market, possibly due to the increasing investment quality and knowledge from market participants. The overconfidence behavior of an investor affects investment decisions, the higher the investor's overconfidence, the tendency for investors to be more confident in placing their funds in an investment even though the investment is classified as an investment that has a high risk.

Investors will be better off if they don't hold their shares for too long when the stock price declines and are not advised to sell profitable shares too quickly. Even though there is a decrease in the share price, it is recommended that investors have a maximum limit of 30 percent in the event of a decrease in the price. This objective can be achieved by increasing the sophistication of investors in order to avoid securities disposition bias. Investor literacy should be improved by understanding information about company fundamentals.

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REFERENCES

- Atif, K. (2014). Interrelationship of Biases: Effect Investment Decisions
- Ghozali, I. (2014). *Structural Equation Modeling, Metode Alternatif dengan Partial Least Square (PLS)*, Edisi 4. Semarang, Badan Penerbit Universitas Diponegoro.
- Baker, H. K., & Ricciardi, V. (2014). *Investor Behavior: The Psychology of Financial Planning and Investing,* New Jersey: John Wiley & Sons, Inc 2014.
- Javed, M. A., & Marghoob, S. (2017). The Effects of Behavioural Factors in Investment Decision Making at Pakistan Stock Exchanges. *Journal of Advanced Research in Bussiness and Management Studies, 7*, 103-114
- Jegadeesh, N. (1995). Overreaction, Delayed Reaction and Contrarian Profits. *The Review of Financial Studies*, 8(4), 973–993.
- Kengatharan, L., & dan Kengatharan, N. (2014). The Influence of Behavioral Factors in Making Investment Decisions and Performance: Study on Investorsof Colombo Stock Exchange, Sri Lanka. *Asian Journal of Finance & Accounting,* 6(1), 1-23.
- Prosad, J. M., Sujata, K., & dan Jhumur, S. (2015). Behavioral Biases of Indian investors: a Survey of Delhi-NCR Region. *Qualitative Research in Financial Markets*, 7(3), 230 – 263.
- Shefrin, H., & dan Statman, M. (2011). Behavioral Finance in the Financial Crisis: Market Efficiency, Minsky, and Keynes, Rethinking the Financial Crisis. *Working Paper*, Santa Clara University, Russel Sage Foundation, New York.
- Sitinjak Elizabeth, L. M., & dan Ghozali, I. (2012). The Investor Indonesia Behavior on Stock Investment Decision Making: Dispocition Effect, Cognition and Accounting Information. *Research Journal of Finance and Accounting*, 3(8).
- Ultimately. *Theoretical and Applied Economics XXI 6(595)*, 85-110.
- Wamae, J. N. (2013). Behavioural factors influencing investment decision in stock market: A survey of investment banks in Kenya. *International Journal of Social Sciences and Entrepreneurship, 1*(6), 68-83.