Solid State Technology
Volume: 63 Issue: 3
Publication Year: 2020

Emotional Bias in Share Investment Decision Making in Young Investors in the Investment Gallery of Widyatama University

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Abstract- In the concept of investors (individuals) who have a rational attitude in a theory of decision making. But in practice, there must be other aspects apart from some alternatives that support decision making. This aspect is a psychological aspect called a behavioral finance study which makes an investor's decision making less rational. This study aims to see the effect of emotional bias in making investment decisions, especially young investors in the investment gallery of Widyatama University. The sampling technique used was purposive sampling. The sample used in this study were 60 respondents from the Widyatama University investment gallery. The results of the data distribution were processed using multiple regression analysis tools. Partially, the emotional bias variable has a positive effect on stock investment decision making at the Widyatma University investment gallery.

Keywords: *emotional bias and investment decisions.*

INTRODUCTION

In the concept of investors (individuals) who have a rational attitude in a decision-making theory, it means that in making decisions, the actions chosen are those that will produce the highest expected utility (Puspitaningtyas, 2012; Shahzad et al., 2013). A rational investor will conduct analysis in the investment decision making process. The analysis includes studying the company's financial reports and evaluating the company's business performance. The goal is that the investment decisions taken will provide optimal satisfaction (utility). In fact, we often find that individuals behave irrationally and make systematic errors in their predictions. Today, financial actors recognize that individuals can make irrational decisions. Incorrect understanding of information will affect investment returns which in turn affect the wealth owned by investors. Even though they have become experts in the theory of modern investment textbooks, investors will still fail to invest if the decisions taken are still heavily influenced by psychological bias (Bester, 2009).

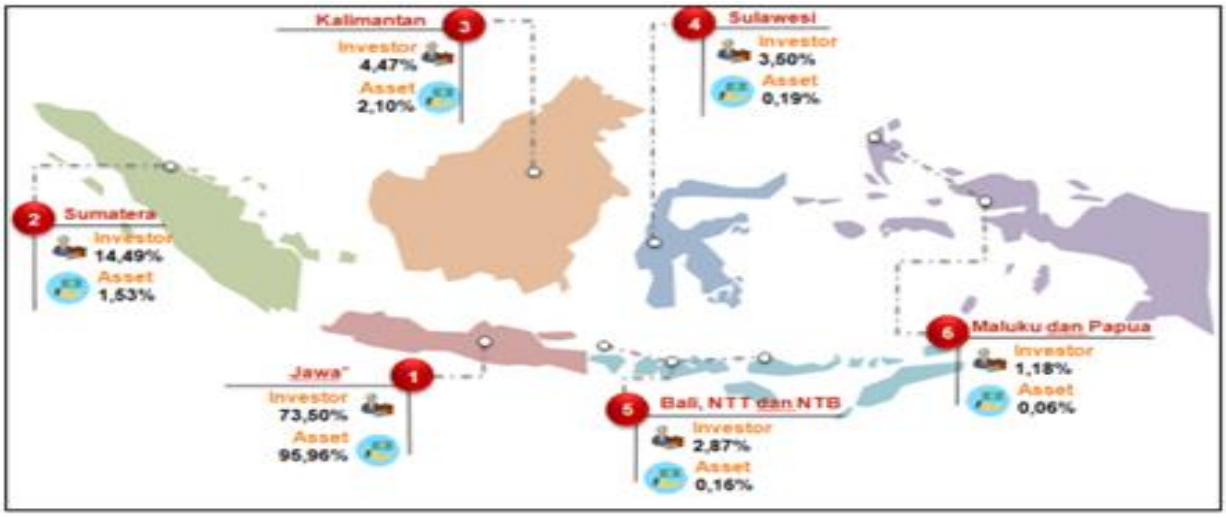
A person's investment decision is determined by the amount of information obtained, the more complete information, the more correct it will be in making a decision. Investment can be said to be profitable if it can make a person's level of prosperity better after investing (Wiharno, 2018).

Behavior finance deals with the psychological factors of investors in making investment decisions. After receiving information and facts, investors make decisions based on cognitive and emotional factors, because investors do not always act rationally in

making decisions. The impact of this psychological factor causes investors to tend to sell shares that have experienced a price decline (floating loss) on the financial market. Behavior finance deals with the psychological factors of investors in making investment decisions. After receiving information and facts, investors make decisions based on cognitive and emotional factors, because investors do not always act rationally in making decisions. The impact of this psychological factor causes investors to tend to sell shares that have experienced a price decline (floating loss) on the financial market.

According to Shefrin (2005), behavioral finance is the science of how psychological phenomena affect financial behavior. According to Olsen (1998), behavioral finance seeks to reveal the notions and predictions of financial markets that focus on the application of psychological and economic principles as a development of the financial decision-making process. Meanwhile, according to Nofsinger and Hirschey (2008) behavioral finance is a study of cognitive and emotional errors in financial decisions. Extreme cognitive and emotional errors can cause investors to make poor investment decisions.

In terms of the number of investors, from the end of December 2017 to 26 December 2018, the number of Single Investor Identification (SID) grew 44% to 1,613,165 SID. This amount is the consolidated number of Single Investor Identification (SID) which consists of investors in Shares, Debt Securities, Mutual Funds, Government Securities (SBSN) and other securities that are listed in KSEI, with a composition of 851,662 SIDs who own share assets, 988,946 SID have assets. Mutual funds and 195,119 SID have Government Securities assets. The total assets recorded at C-BEST as of December 26 2018 were dominated by local investors at 54.71%. This percentage increased from the previous year (as of December 2017) where local ownership reached 54.50%. The demographic data of investors in Indonesia are currently dominated by men (59.13%), aged 21-30 years (39.72%), with a private employee employment status (58.27%) and a Bachelor degree (51.42%).



*Including DKI Jakarta Investors (SID: 25,89%; Asset 85,07)

Figure 1. Distribution of Domestic Investors in Indonesia (as of 26 December 2018)

The average daily stock transaction value on the IDX during the period 23 to 27 April 2018 increased by 30.75 percent to IDR 8.52 trillion from IDR

6.51 trillion in the previous week period. The average daily share transaction volume on the IDX in the past week also increased by 13.67 percent to 9.85 billion units of shares from 8.66 billion units of shares a week earlier.

The average daily stock transaction frequency on the IDX in the past week also increased by 0.65 percent to 399.77 thousand transactions from 397.17 thousand transactions the previous week. On the other hand, the market capitalization value of the IDX changed by 6.77% to Rp 6,588.52 trillion at the end of this week from Rp 7,054.82 trillion at the position of the previous weekend.

In a study conducted by Erricha (2010) which was also conducted in Salatiga (a study of capital market investors in Salatiga and Semarang), the results showed that the most dominant aspect of bias in making investment decisions is regret aversion bias. In this study, researchers conducted research that only involved emotional aspects because there were many young investors in the Widyatama University investment gallery. Based on the above background, the formulation of the problem in this study is about which emotional bias aspect is more dominant in making stock investment decisions (studies on investors in the investment gallery of Widyatama University).

LITERATURE REVIEW

Many investors do not realize that psychological factors in themselves affect their decisions in making investment decisions. Behavioral finance is indeed a very interesting topic to research. Supramono in Agustina (2009) states that financial behavior that is influenced by psychology is called behavioral finance. According to Nofsinger and Hirschey (2008): "behavioral finance is a study of cognitive errors and emotions in financial decisions." ("Financial behavior is the study of cognitive and emotional errors in financial decisions").

Through the approach used, it can be seen that behavior-based finance uses psychology, to be precise cognitive psychology in explaining biased behavior, so that the synergy between the two disciplines, namely finance and cognitive psychology, can prove that a person's behavior can deviate from normative standards (Shefrin (2007) in Supramono et al. (2010)).

Shefrin (2007) categorizes aspects that can play a role in decision making, namely: bias, heuristic, and framing effects. In this study only the bias category was the focus of the study. In accordance with Nofsinger and Hirschey's (2008) statement above, Pompian (2006) divides bias into two categories, namely: (1) cognitive bias is a process of acceptance with thoughts that can encourage human behavior, (2) emotional bias which is an impulse more than just calculation that makes sense / rational for actions that involve deep activities and changes accompanied by strong feelings.

Investation decision

Investment is defined as a way of investing, either directly or indirectly with the hope that at a later time, the owner of the capital will get a number of benefits that are expected from the investment (Syamsudin, 1997). According to Wilson (2008) in Purnamasari (2010), decision making is a process of selecting an alternative. This understanding is supported by the definition expressed by Goetsch and Davus (1997) as quoted by Supranto (2003) as follows "decision making is the process of selecting one course of action from among two or more alternatives." ("To take or make a decision is to choose one alternative from many alternatives").

In the investment process, an investor acts as a decision maker of several investment alternatives. The decision

to be taken is of course not an arbitrary decision because in the investment process the investor must avoid risk as much as possible. In carrying out the investment process, it is very necessary how an investor should make investment decisions in various types of assets (real or financial). The investment process goes through several stages, namely: (1) By determining investment objectives, (2) conducting analysis, (3) establishing portfolios, (4) evaluating portfolio performance, (5) revising portfolio performance (Ahmad, 1996).

There are 3 things that are the main objective of investing. First, there are future needs or needs that cannot be fulfilled at this time. Second, there is a desire to add value to assets and protect the value of assets already owned. Third, because of inflation (Pratomo & Nugraha 2005).

In the analysis stage, investors will usually conduct research such as studying the state of the economy, the company's financial statements, the company's financial performance, to the extent of the risk. Meanwhile, in the portfolio formation stage, identification of which assets will be selected and what proportion of funds will be invested in each of these assets is carried out. So, investment decisions are the process of allocating funds for investment in the hope that the owner of the capital will benefit.

Stock Instruments

Forms of instruments in the capital market are called securities, namely securities that are traded on an exchange (Mohamad Samsul, 2016). These capital market instruments are generally long term. The instruments on the capital market are:

a) Shares are proof of owning a company in which the owners are also known as shareholders (shareholder or stockholder).
b) Bonds (bonds) Bonds are proof that a company has long-term debt to the public, which is more than 3 years. Parties who buy bonds are called bondholders and bondholders will hold coupons as income from bonds that are paid every 3 months or 6 months. Upon repayment of the bonds by the company, the bondholders will receive coupons and principal of the bonds.
c) Proof of right Is the right to buy shares at a certain price within a certain period. The right to buy is owned by the old shareholders. A certain price here means that the price has been set in advance and can be called the exercise price or the ransom price
d) Mutual Fund Is a place or place that provides services to help investors to spread their investment. For investments related to the capital market, the instruments traded can be in the form of common stocks, government bonds, private bonds, and others. Of course it will be very difficult if you decide and choose which investment tools yourself will take. Therefore, there is one form of company that will help investors. These companies are often called mutual funds or mutual funds.
e) Warrant is the right to buy shares at a certain price within a certain period.
f) Stock index and bond index Is an index number that is traded for the purpose of speculation and hedging (hedging).

The Effect of Emotional Bias on Investment Decision Making

Emotional bias is an impulse that is more than just a rational calculation to act that involves deep activities and changes accompanied by strong feelings. Examples used as variables to see whether there is an effect of emotional bias on the investment decision making of investors in the city of Salatiga who have an investment

portfolio in this study are loss aversion bias, regret aversion bias, and status quo bias.

Loss Aversion Bias

In fact, psychologically, humans experience more loss than income. Loss aversion bias is a very strong feeling of the impulse to avoid loss rather than gain (Pompian, 2006). The psychological impact caused by losses will be greater than when investors experience profits. Investors will remember more when they experience losses. This bias tendency can affect investors' decisions where investors will be more careful when making investment decisions because investors feel they do not want to repeat the same mistakes. They don't want to feel down when they have a loss.

H1: loss aversion bias has a positive effect on stock investment decision making

Regret aversion bias

Regret aversion bias is a decision to act to avoid making the same decision firmly because there is a feeling of fear (Pompian, 2006). Trying to prevent pain you have experienced while experiencing losses in the past. Investors who experience regret aversion bias tend to fear that they will suffer the same loss and feel guilty. Regret aversion arises from investors' desire to avoid regret due to wrong investment decisions. This bias encourages investors to hold underperforming stocks for sale in order to avoid losses. Conversely, regret aversion can occur when an investor sells a stock that is in a downtrend. The reason is that when selling these shares and surprisingly the stock price increases again, investors will regret the transaction decision so that in future financial decisions, investors will try to avoid such regrets.

H2: regret aversion bias has a positive effect on stock investment decision making

Status Quo Bias

According to Pompian (2006), the status quo bias describes that people prefer to stay in the same conditions or avoid change. This biased status quo is what causes investors to own securities that they feel more familiar with or that they prefer emotionally to. This behavior can lead investors to further compromise on their financial goals. However, it is not justified if the assessment "feels more familiar" with the level of subjective comfort is used as a reason for an investor to make a decision even though the performance of the alternative asset is poor. Investors will tend to maintain existing conditions to avoid risks due to difficulty predicting the future. Investors with this bias tendency can influence investment decision making.

H3: the status quo bias has a positive effect on stock investment decision making

Based on the hypotheses described above, a framework can be developed that states that loss aversion bias, regret aversion bias, and status quo bias affect investment decision making.

METHODOLOGY

The research method uses descriptive verification method using multiple linear regression analysis. The sampling technique used was purposive sampling, which is sampling with a technique tailored to the research objectives, where the sample used is in accordance with certain criteria determined based on the research objectives (Sugiono, 2009). These criteria are the criteria for investing for more than 6 months, trading more

than 3 times, the maximum age for investors of 40 years and investors who invest in stocks. This data is obtained through a survey method by distributing questionnaires to investors in the investment gallery of Widyatama University. As many as 60 questionnaires were distributed, the distribution was carried out by entrusting the questionnaire to an Account Executive of the investment gallery at Widyatama University.

Types and Sources of Data

The type of data used in this study is primary data. Primary data is data obtained through field research and self-processed (Supramono & Haryanto, 2005). Primary data in this study include data on respondent characteristics, data on respondents' answers to variables, loss aversion bias, regret aversion bias, status quo bias, and stock transaction investment data.

The analytical tools used to test this regression are validity and reliability tests, classical assumption tests, and regression tests. The validity test is used so that the measurement is completely free of systematic errors and random errors. Meanwhile, the reliability test is an index that shows the extent to which the measuring instrument is reliable or reliable (Singarimbun, 1989). While the classical assumption test is used to test data to meet the criteria for Best Linear Unavailable Estimator (Blue) so that it can produce valid estimator parameters (Supramono & Haryanto, 2005).

RESULTS AND DISCUSSION

Respondent Characteristics

This section describes an overview of the respondents, which supports and complements the results of data analysis based on age, type of work, and length of investment. Data obtained from 60 respondents.

Table 1. Research Results of Respondent Characteristics

No.	Category	Sub category	Amount	%
1	Gender	Male	42	70
		Female	18	30
2	Age	14 – 30 years	48	80
		31 – 40 years	8	13,3
		41 – 50 years	4	0.67
3	Type of work	Student	33	55
		Private Employees	12	20
		Entrepreneur	6	10
		Practitioner	3	0,5
		Others	16	10
4	Duration of investing	1 - 5 Years	43	72
		6 - 10 Years	10	17
		>10 Years	7	12

Source: processed by researchers 2019

Validity and Reliability

From the distribution of questionnaires that have been given to 60 respondents, data is obtained that will be used to answer research problems. The results of the validity and reliability testing are presented in Table 2.

Table 2. Validity Test and Reliability Test

Variable	Indicator	Validity (Corrected item – Total correlation	Conclusion	Reliability (Cronbach's Alpha)	Conclusion
Loss aversion bias	X1.1 X1.2	0,670 0,634	Valid	0,802	Reliable
Regret aversion bias	X2.1 X2.2	0,732 0,723	Valid	0,823	Reliable
Status quo bias	X3.1 X3.2	0,645 0,546	Valid	0,755	Reliable
Investment Decision	Y1.1 Y2.2	0,765 0,768	Valid	0,869	Reliable

Source: Primary data processed in 2019

Based on the output results in Table 2, it is known that each item statement of each variable loss aversion bias, regret aversion bias, status quo bias and investment decisions can be said to be valid, because the value of r count> from r table is 0.256. This means that every item of the statement in this research questionnaire is able to express what is being measured. While, a variable is said to be reliable if the Cronbach Alpha value is greater than 0.70. It can be seen that all variables can be said to be reliable, because the variables of loss aversion bias, regret aversion bias, status quo bias and investment decisions have a Cronbach Alpha value of more than 0.70.

Multiple Regression Analysis

Testing the classic regression assumptions that have been fulfilled includes the normality test, multicollinearity and heteroscedasticity so that it meets the requirements for performing multiple regression analysis. Hypothesis testing using the coefficient of determination (R^2), F test and t test.

Coefficient of Determination (R^2)

The coefficient of determination in essence measures how far the model's ability to explain the dependent variable. The R^2 value from the calculation of the SPSS model summary output, the amount of R Square is 0.459. This means that 45.9% of variations in investor investment decision making can be explained by emotional bias. While the remaining 54.1% (100% - 45.9% = 54.1%) is explained by other factors outside the model.

Model Estimation Results

The results of testing the estimated correlation coefficient model using the F test, and (2) estimating the regression coefficient model using the t test, as presented in Table 3 and 4:

Table 3. Correlation Coefficient Model

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	48.140	3	8.023	4.659	022[a]
Residual	56.835	57	1.722		
Total	104.975	60			

a. Predictors: (Constant), LA, RA, SQ
b. Dependent Variable: TKI
Source: Primary data processed in 2019

This test is intended to determine the effect of the independent variable and the dependent variable together (simultaneously). From the ANOVA test or F test, the calculated F value is 4.659 with significance (Sig. <0.05), then the regression model can be used to predict investment decision making or it can be said that emotional bias jointly affects investment decision making.

Table 4. Estimation of the regression coefficient model

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
(Constant)	5.117	1.212		4.222	.000
X_1 (LA)	.332	.130	.418	2.448	.015*
X_2 (RA)	-.307	.115	-.422	-2.565	.011*
X_3 (SQ)	.480	.135	.596	3.466	.001*

a. Dependent Variable: TKI
Information: *) significant at the 5% level
Source: Primary data processed in 2019

The equation for the multiple regression model variable loss aversion bias, regret aversion bias, and status quo bias towards investment decision making (KI) is:

$$KI = 5.117 + 0.332LA - 0.307RA + 0.480SQ$$

From the table above, it is known that the t test uses a significance level of a = 5% by including the three independent variables into the regression model, so the variables that have a positive and significant effect on investment decision making are the emotional variables of bias.

Table 5. Hypothesis of Research Results

Hypothesis	Hypothesis Statement	Sig.	Information
H_1	Loss aversion bias has a positive effect on investment decision making	0.015	Significant
H_2	Regret aversion bias has a positive effect on investment decision making	0.011	Significant
H_3	the status quo bias has a positive effect on investment decision making	0.001	Significant

Source: Processed by researchers 2019

Based on the results of data processing, it was found that the cognitive dissonance bias and illusion of control bias variables had a positive and insignificant effect on investment decision making. The results of data processing show that overconvidence bias, loss aversion bias, regret aversion bias, and status quo bias have a positive and significant effect on investment decision making. It can be seen from the results of the regression analysis which shows a significance level whose value is less than the error tolerance limit of 0.05. This result means that some investors in the investment gallery at Widyatama University are affected by loss aversion bias, regret aversion bias, and status quo bias in making their investment decisions. aspects of emotional bias that have a positive effect. However, this is consistent with Kadir's (2001) in Enawati (2008) statement that behaving irrational (biases) usually acts without logic and it is possible that most of his actions are influenced by an emotional response. At the level of young investors associated with the respondent's profile, which is dominated by students, so that in making investment decisions, they tend to use emotional attitudes. Investors tend to use their emotional aspects to be more biased in making their investment decisions because everything cannot be seen and is directly related to one's thought processes or beliefs and preferences, and this is what makes a person fail to understand them even though they are in it at that time. This is probably due to the lack of confidence in their own ability to analyze stock alternatives that will be taken more deeply and are more easily influenced by the new information they get. This supports the opinion of Pompian (2006) which states that the biased aspect is an aspect that tends to produce decisions that do not guarantee absolute accuracy and as a consequence someone has the possibility to make wrong decisions or miscalculated estimates.

CONCLUSION

Conclusion

Based on the above discussion, it can be concluded that the three variables, namely loss aversion bias, regret aversion bias, and status quo bias have a positive effect on investment decision making.

Suggestions

This research allows it to be further developed, because there are still some limitations of the study where all the independent variables in this study only contributed 45.9% of the total independent variables, meaning that there are still 54.1% other independent variables that are not yet known and researched independently. scientifically, influencing the investment decision making of young investors in the investment gallery.

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