

Determinant of Investor Behavior of Investment Decisions In Makassar College Student Investors

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ABSTRACT:- This study aims to: (1). Knowing the effect of *loss aversion* on investor decision making (2). Knowing the effect of *regret aversion* on decision making. (3). Knowing the effect of *mental accounting* on decision making. This study uses a survey method by distributing questionnaires to 120 students who are active in the Investment Gallery in 6 Private Universities in Makassar. The analytical tool used is SPSS.23 multiple regression. The result (1). *Loss aversion* affects the investment decision making (2). *Regret Aversion* has no effect on investment decision making (3). *Mental Accounting* effect against investment decisions. The limitation of this paper is that this study only uses one factor, namely the prospect factor. In these factors only take loss aversion, regret aversion, and mental accounting, for further research is expected to be able to involve four factors in behavioral finance (heuristic factors, prospect factors, herding factors, and market factors) not just prospect factors.

I. PRELIMINARY

The trend of digitalization in Indonesia is the door for all sectors, including the capital market industry. But unfortunately, the interest of the Indonesian people in investing in the capital market is still very minimal. The Head of the Indonesian Stock Exchange in South Sulawesi Representative, Fahmin Amirullah, said that only about 4.40% of Indonesian people understand about the capital market . consumptive than investment. This paradigm must be changed through massive outreach, especially since capital market investment currently offers a variety of conveniences.

Before 2011, an investment of Rp. 50 million had to be prepared, which if it were converted now would amount to Rp. 300 million. Now you can open a securities account with a very minimal deposit. That deposit will be used to buy shares, "Fahmi explained in the Investart event in Makassar on Saturday (03/06/2019).

Fahmi continued the capital market began to bring good news in 2018. This was evidenced by the growth in the number of capital market investors that rose significantly and dominated by millennials. . BEI Sulsel recorded the number of Single Investor Identification (SID) in 2017 which was only 8,867, rising to 13,797 in 2018, and in February 2019 it was recorded at 14,690.

"The total SID aged 18 to 40 is 10,139. Millennials are now very much interested in investing, interested in getting to know what investment products are," Fahmin said. (, Bisnis.com, 07 April 2019 | 02:38 WIB by Sitti Hamdana Rahman).

Another feature that makes the stock market more attractive than other types of investment is its liquidity (Jaswani, 2008). Most people invest in shares because they want to be the owner of the company, from which they benefit when the company pays a dividend or when the share price rises (Croushore, 2006, p. 186). But in investing an investor must be able to control emotions in decision making.

Masomi & Ghayekhloo (2011), the second group of emotional illusions that can have an impact on investors' decision making processes is prospect theory. This emotional bias focuses more on feelings and spontaneity than on facts. So emotional bias is often portrayed in behavioral errors when making decisions because of ignoring the facts. Ranjbar et al, (2014) prospect theory is one of the main approaches in terms of investment decision making from different perspectives.

Prospect theory is focused on decision making based on emotions that are influenced by assessments made by investors. Sometimes the feeling of not wanting to get too large a loss is often owned by investors when plunging in the world of investment, it can trigger behavior and cause some bias in decision making. Prospect theory describes some mental conditions that commonly occur in the decision making process such as loss aversion, regret aversion, and mental accounting (Wawero et al., 2008: 28).

Prospect theory, developed by Kahneman and Tversky (1979), is one of the most frequently cited and best documented phenomena in economic psychology. The theory states that we have an irrational tendency to be less willing to bet with profits than with losses. "Tvede (1999, p. 166) prospect theory shows human behavior when they face risks and uncertainties, humans do not consistently avoid risks; not they avoid risk in profits but risk takers in losses (Kishore, 2004). In other words, traders are most likely to take further risks if they have suffered losses. Conversely, traders who have experienced profits, usually their exposure to the next risk.

Therefore, people respond differently, depending on whether the choice is framed in terms of gain or in terms of loss. Examples of the most affected framing effects.

Since the proposed loss aversion theory (Kahneman and Tversky, 1979) which states that losses have a greater weight than profits, the high frequency of evaluation of an investment in risky assets will encourage higher levels of investor dissatisfaction (Haigh and List, 2005), and vice versa. Thus, the lower frequency of evaluations will encourage investors to allocate a greater proportion of assets to riskier investments (such as stocks) compared to less risky investments (such as bonds). This condition shows that investors will experience myopic loss aversion if they evaluate the results of their investment in the form of profit and loss separately when consuming information (Haigh and List, 2005). It is this analysis that has prompted the manager of the Hapoalim bank (one of the largest mutual fund companies in Israel) to change the period of information from one month to three months (Gneezy et al., 2003: 821). Illustrated by Tversky and Kahneman (1981).

Pompian (2006) states that regret aversion can cause several things, namely: investors become too conservative, too antipathy to the market because the market continues to fall, investors are at a loss for a long time, herding behavior appears on investors, investors like good companies, investors will waiting to take action to sell shares with good performance.

Mental Accounting which was popularized by Thaler, is an economic behavior in which someone classifies income and financial output based on items such as those that apply to the accounting system. According to Thaler (1999), mental accounting includes three main components. The first component concerns how an outcome is perceived and used as experience, and how to make a decision, and after that evaluate the decision. The second component concerns activities to detail an account, for example for groups of sources and uses of funds that are labeled properly. The final component includes the frequency with which an account is evaluated

Based on empirical facts that have been described previously, regarding investors in Makassar, the authors are interested in examining the influence of investor behavior in making stock investment decisions on Makassar Mileneal investors.

The purpose of this research:

1. To determine the effect of *loss aversion* on the decision making of stock investors in Makassar
2. To find out the effect of *regret aversion* on the decision making of money stock investors in Makassar
3. To determine the effect of *Mental Accounting* on decision making.

II. LITERATURE STUDY AND HIOTHESIS DEVELOPMENT

2.1. Financial Behavior (Behavior Finance)

2.1.1. Definition of Financial Behavior

(Ricciardi & Simon, 2015) "Behavioral finance attempts to explain and increase understanding of the reasoning patterns of investors, including the emotional processes involved and the degree to which they influence the decision-making process" This means that behavioral finance also tries to explain and enhance understanding about patterns of investor reasons including emotional aspects and the degree to which they affect the decision making process

Litner (1998: 7)

"Behavioral finance is the study of how humans interpret and act on information to make informed investment decisions" Referring to this definition, behavioral finance is a science that studies how humans react and react to information in an effort to make decisions

2.1. 2. Theories and Factors of Financial Behavior

2..1. 2.1. Prospect Theory

"Prospect theory, developed by (Kahneman & Tversky, 2007) is one of the most frequently cited and best documented phenomena in economic psychology. The theory states that we have an irrational tendency to be less willing to bet with profits than with losses. Prospect theory is focused on mental decision making which is influenced by the investor value system. Prospect theory explained several effective mental conditions in the decision making process such as loss aversion, regret aversion, and mental accounting. (Waweru et al., 2008)

a. Loss aversion

Investors in buying and selling shares on the stock exchange, investors will get a gain (profit) or loss (loss). Investors will feel more hurt if they experience loss rather than get the same amount of gain (Roth, 2007). Feelings of sadness or hurt due to loss can be up to two times greater than getting the same amount of gain (Tilson, 2005). .

The loss aversion indicator is:

1. After earning a profit it becomes more investment.
2. After experiencing a loss be more careful to invest

3. Feeling more pressured on the prospect of loss compared to the prospect of a profit of the same value.

b. Regression Aversion

Regret is the emotion that comes after someone made a mistake. Investors avoid this regret by refusing to sell shares with a declining performance and wanting to sell shares when the performance is increasing (Luong and Ha, 2011).

The indicator of regret aversion is:

1. Sell a low stock fast rather than sell a stock whose price rises in the future.
2. Avoid selling shares that increase in value and selling shares of decreasing value.
3. Worry about changes in the stock market especially stocks invested.
4. More interested in buying company shares that have performed well since calculating losses.

c. Mental Accounting

The behavior of investors using mental accounting in making buying and selling decisions on traded shares by weighing the costs and benefits of all the actions or actions they take (Nofsinger, 2005). Thus investors feel safe in conducting transactions so as to minimize risk because of the consideration of the costs and benefits to be obtained with decisions taken, for example the risk of loss in large amounts. Indicators used in investing investors always calculate the benefits to be obtained and always calculate the costs to be incurred.

Indicators of mental accounting are:

1. Paying attention separately to the development of each investment.
2. Ignoring the relationship between different investment possibilities.

d. Decision-making

Many researchers consider decision making as the process of choosing between different alternatives for the right solution in the context of problem solving. Precisely, according to Zeleny (1982, p. 84), the decision-making process is "the act of choosing the most desirable alternatives and treating it instead as a process: a dynamic and interrelatedness of all terkaitan between before making a decision , the decision and post-decision stage

Share decision making consists of the decision to sell shares and the decision to buy shares, while the indicators to sell shares are:

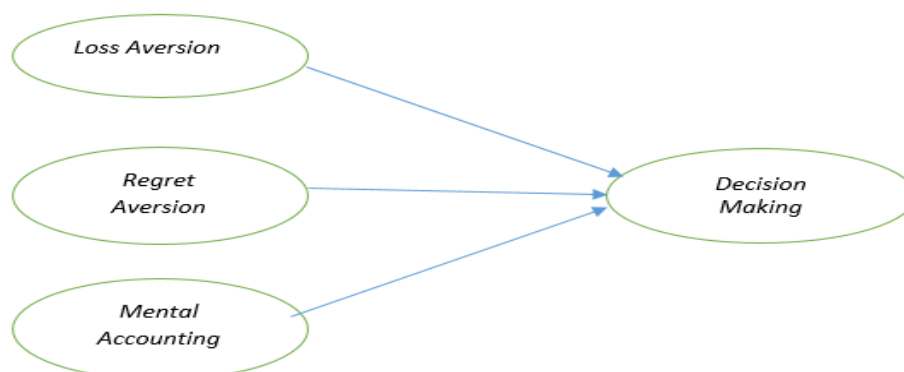
1. Stock price expectations
2. Share price correction
3. Loss experience

While indices factor stock buying decisions are:

1. Buy shares as an investment requirement
2. Buy shares when there is positive stock information
3. Information from the media about the benefits of the shares purchased.
4. Understand the risk of the shares purchased
5. Stock performance as expected

2.2. Conceptual Framework and Hypothesis

Conceptual framework is a form of framework of thinking that can be used as an approach in solving problems. Usually this research framework uses a scientific approach and shows the relationship between variables in the analysis process.



The hypothesis that was built was:

- H1. = *L oss A version* influences decision making
H2 = *R egret aversion* influence on decision-making
H3 = *M ental Accounting* affects the decision making

III. RESEARCH METHODOLOGY

This research uses a quantitative approach using primary data . The population in this study were all investors in Makassar in 2019, while the sample in this study was 120 respondents, students who were members of the Investment Gallery community (GI) scattered in several private universities in Makassar as shown in table .1. Each respondent was given a questionnaire to provide answers to the statements that have been provided, both closed questions and open questions.

Data collection techniques were carried out using survey methods by distributing questionnaires. Data were analyzed using SPSS 23 regressions.

Research Results and Discussion

To make it easier to identify respondents in this study, an overview of the characteristics of respondents is needed. The description of the characteristics of respondents in this study is

Table .1 Characteristics of Respondents to investors in Makassar City

| Characteristics of Respondents | Number of people) | Percentage (%) |
|---------------------------------|-------------------|----------------|
| Gender | | |
| Boy | 41 | 52.17% |
| Girl | 79 | 47.83 |
| amount | 120 | 100 |
| Age | | |
| 18-24 years old | 112 | 93.3 |
| 25 - 3 4 years | 5 | 4.2 |
| 35 - 44 years | 2 | 1.7 |
| 45 - 54 years old | 1 | 0.8 |
| amount | 120 | 100 |
| Education | | |
| High school | 120 | 100 |
| amount | 120 | 100 |
| Monthly income | | |
| Less than Rp. 5 million | 114 | 95 |
| Rp. 5 million - 10 million | 6 | 5 |
| amount | 120 | 100 |
| Profession | | |
| Students and Students | 120 | 100 |
| amount | 120 | 100 |
| Marital status | | |
| Single | 116 | 96.7 |
| Married | 4 | 3.3 |
| amount | 120 | 100 |
| The number of dependents | | |
| There are no dependents | 117 | 97.5 |
| 1 child | 1 | .83 |
| Two children | 2 | 1.67 |
| amount | 120 | 100 |
| Investment time | | |
| 1 year | 91 | 75.8 3 |
| 2 years | 23 | 19.17 |
| 3 years | 6 | 5 |
| amount | 120 | 100 |
| Security | | |
| Securities Mutual Funds | 17 | 14.16 |
| Mandiri Sekuritas | 3 | 2.5 |
| First Asia Capital | 25 | 20.83 |
| Phintraco Securities | 21 | 17.5 |
| RHB Securities | 21 | 17.5 |
| MNC Securities | 30 | 25 |

| | | |
|----------------|-----|-------|
| amount | 120 | 100 |
| College | | |
| STIE NITRO | 20 | 16.67 |
| STIE ATMAJAYA | 20 | 16.67 |
| UNISMUH FEB | 20 | 16.67 |
| FEB UMI | 20 | 16.67 |
| YPBUP STIEM | 20 | 16.67 |
| STIE NOBEL | 20 | |
| Total | 120 | 100 |

Source: Data processed, (2019)

Based on table 1 above, it can be seen that respondents in this study were dominated by gender by 79 people or 52.17% while the rest were 41 men or 47.83%.

From the age criteria, respondents in this study were dominated in the age range of 18-24 years as many as 112 people or 93.3%, the rest in the age range 25-34 years were 5 people or 4.2%, 35-44 years as many as 2 people or 1.7% and the rest in the 45-54 year age range of 1 person or 0.8%.

In the educational criteria of respondents overall on the level of high school education for the average respondents are students who are studying Stratas One (S-1) at 6 Colleges in Makassar.

Respondents in general were not married namely 116 people or 96.7%, who were married as many as 4 people or 3.3%. Respondents in general do not have the responsibility that is as many as 117 people or 97.5% of the rest have a dependent child of 1 person or 0.83% and 2 children dependents of 2 people or 1.67%.

The majority of respondents' investment for 1 year was 91 people or 75.83%, for 2 years there were 23 people or 19.17% and the rest for 3 years was 6 people or 5%.

Respondents are investors registered with securities in Makassar, namely MNC Securities with 30 people or 25%, First Asia Capital with 25 people or 20.83%, RHB Securities with 21 people or 17.5%, Phintraco Securities with 21 people or 17.5% Danareksa Securities as many as 17 people or 14.16% and the rest came from Mandiri Sekuritas as many as 3 people or 2.5%.

Respondents are students registered at private universities, namely from STIE NITRO, STIE ATMAJAYA, FEB UNISMUH, FEB UMI, STIEM YPBUP, STIE NOBEL each as many as 20 people ..

IV. RESEARCH RESULTS AND DISCUSSION

4.1. Validity and Reliability Test

Test Validity and Reliability Validity test is a test that shows the extent of the accuracy and accuracy of a measuring instrument in carrying out its measurement function. This test is done by correlating the score of the item with the total score of the variable. Part of the validity test used in research is through the analysis of question items. In this study the data tested were as many as 120 respondents using SPSS 23 software for windows. An item or indicator is said to be valid if the Pearson product moment correlation number results (r arithmetic) at a significance level <0.01 and instruments in the study can be said to be valid if the correlation coefficient value is greater than 0.3. The results of validity testing are shown in Table 2 below .

Table 2. Validity Test Results

| Variable | Indicator Item | Coefficient correlation | Significant | Information |
|-------------------------------|----------------|-------------------------|-------------|-------------|
| Loss Aversion (x1) | x1.1 | 0.840 | 0.00 | Valid |
| | x1.2 | .809 | 0.00 | Valid |
| | x1.3 | .694 | 0.00 | Valid |
| Regret Aversion (x2) | x2.1 | 0.792 | 0.00 | Valid |
| | x2.2 | 0.840 | 0.00 | Valid |
| | x2.3 | .651 | 0.00 | Valid |
| | x2.4 | .389 | 0.00 | Valid |
| Mental Accounting (x3) | X3.1 | .453 | 0.00 | Valid |
| | X3.2 | .688 | 0.00 | Valid |
| | X3.3 | 0.637 | 0.00 | Valid |
| Taking Decision (Y) | Y1. | 0.862 | 0.00 | Valid |
| | Y2 | .772 | 0.00 | Valid |
| | Y3 | 0.700 | 0.00 | Valid |

Source: Data processed (2020)

The results of validity testing show that the question items on the Loss Aversion variable (x1), Regression Aversion (x2), Mental Accounting (x3), and Decision Making (Y) indicate that all question items for the independent variable have a value of r greater than 0.5 ($r > 0.5$) and has a probability value smaller than 0.005 so that it is stated that the resulting data is valid.

Reliability test is used to find out whether the research instrument in the form of a questionnaire is reliable or consistent, if the reliability (consistency) can be proven, it can be said that the instrument is good. Measurement of reliability using the cronbatch's alpha method using a numerical index called the coefficient. Reliability analysis is done by looking at whether the cronbatch's alpha coefficient is greater than 0.60. If the *cronbatch's alpha* coefficient shows a value greater than 0.60, it can be said that the measured variable is reliable or has reliability for use in a study.

Table 3. Reliability Test Results
Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|--|------------|
| .744 | .739 | 10 |

From table 3 above shows that the Cronbach's alpha coefficient on all item questions for the variable Loss Loss (x1), Regression Aversion (x2), Mental Accounting (x3), and Decision Making (Y) that all show both independent and dependent variables are stated have good reliability

4.2. Uji Regression

Hypothesis testing in this study uses multiple linear regression analysis techniques. The selection of the technique is based on the research objective, which is to determine the effect of more than one independent variable on the dependent variable using interval scale data. Based on the calculation of multiple linear regression, the results obtained as shown in Table 4 below :

Table 4. Multiple Linear Test Results
Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 18,508 | 2,645 | | 6,996 | .000 |
| | x1 (Loss Aversion) | .627 | .203 | .256 | 3089 | .003 |
| | x2 (Regret Aversion) | .023 | .146 | .013 | .157 | .875 |
| | x3 (Mental Accounting) | .818 | .181 | .392 | 4,518 | .000 |

a. Dependent Variable: Y (Purchase Decision)

From the results of the regression calculations the equation can be:

The regression equation is: $Y = 18.508 + 0.627 x_1 + 0.023 x_2 + 0.818 x_3 + e$

Where

x_1 = Loss Aversion

x_2 = Regression Aversion

x_3 = Mental Accounting

Y = Purchase Decision

e = 5% error rate

A constant of 18,508 states that if the independent variable (Loss Aversion (x_1), Regression Aversion (x_2) and mental Accounting (x_3)) are considered constant then the average decision making is 18,508 that the decision to buy and sell shares by investors in the sample in this study is influenced by Loss Aversion 7 percent, Regret A version of 2.3 percent and Mental Accounting of 81.8 , the rest by factors not included in this study.

4.3. Hypothesis Testing

(1). H1. = Loss aversion affects decision making

This study successfully demonstrated that the effect of loss aversion on investment decisions of young investors in Makassar. These results are indicated by the results of the hypothesis test using the independent t-test used to measure the degree of influence of the independent variable on the dependent variable.

The results of these tests indicate a smaller significance value than alpha, namely $0.000 < 0.05$. The significance value of the independent t-test is the basis for making a decision to reject H_0 and accept H_1 so that it can be concluded that there is a strong influence between loss aversion and investment decisions.

The results of this study are in line with previous studies conducted by Zeleny (1982, p. 84), Luong, et al (2011), Ngoc (2014), Khan (2015), and Kimeu, et al (2016) and Rekik and Boujelbene (2013). However, this finding is not supported by research conducted by Javed, et al (2013) and Jamali, et al., (2014). The study said that loss aversion does not affect investors in making investor decisions will have an impact on risk averse attitudes when they make decisions.

2. $H_2 = \text{Regression Analysis}$ influences decision making

From the results of multiple SPSS 23 regression analysis, namely in table 2. Coefficient regression results, *Regret aversion* did not give effect to the decision, seen from the level of significance $0.875 > 0.05$.

The results of this study are in line with research conducted by Yonson (2008). Many factors influence the absence of the influence of this regret aversion bias among existing respondents.

According to Muhanda (2008) who cited Handi Irawan's statement, there are 10 unique characteristics of Indonesian consumers, among others, as follows: 1) Short-term memory, 2) no planning, 3) likes to get together, 4) catchy, 5) prioritizes context, 6) foreign fanatics, 7) religious, 8) show off & prestige, 9) culture, 10) environmentally conscious.

Of the ten characters chosen four characters to explain why regret aversion can not affect investment decisions. First, Indonesian consumers have a short-term memory means that it is suspected that Indonesian investors want to produce high short-term returns so that regret is ignored. Second, Indonesian consumers like to get together with their colleagues, meaning that investment decisions are also influenced by colleagues who are so confident in their opinions that regret can be ignored. Third, Indonesian consumers are very religious, meaning that in investing full of new expectations so regret is ignored (students who become respondents come from universities that emphasize education with truth values). Fourth, Indonesian consumers like to show off and prestige, which means it has an impact on investment behavior that is only based on prestige so that regret can be ignored. According to Sjabadhyni and Wutun (1999), viewed from the perspective of economic psychology, the behavior of Indonesian consumers is influenced by several factors including 1) income levels, 2) subjective about income levels, 3) changes in attitudes & habits, 4) changes in expectations, 5) changes in group reference, 6) changes in the level of expectations, 7) expectations on the economic situation, 8) expectations of the family's financial situation, 9) perception of the level of prices next year, 10) perceptions of layoffs in Indonesia.

Of the ten factors above, four factors were chosen to explain the possibility of regret being ignored in an investment decision. First, subjectivity to the level of income that the investment with a value of Rp.50,000,000, - in the questionnaire scenario is considered small (students who are respondents from the middle and upper economic class), so that regret is ignored in investment decisions. Second, expectations of the Indonesian economic situation, economic expectations will not improve affect the perspective of investing so regret is ignored. Third, the perception of rising price levels will continue to influence investment behavior to prefer investments with high returns or pile up goods that are considered profitable so that regret is ignored. Fourth, the perception of layoffs in Indonesia is higher, making a precautionary attitude by seeking profitable investments so that regret is ignored.

3. $H_3 = \text{Mental Accounting}$ influences decision making

The level of significance of the Mental accounting variable is $0.00 > 0.05$ which means that the accounting variable has an influence on investors' decision making in buying and selling shares.

The results of this study are in line with research conducted by Andrian Sumtoto and Njo Anastasia (2015), Patriani, Denies, Wahyu, (2018). This shows that Makassar's millennial investors have separated their financial accounts for different investments. Mental accounting has the meaning that millennial investors always calculate the profits and costs that will be incurred in making a sound transaction.

Thus from the results of a research analysis of the three factors of prospect theory, namely Loss Aversion, Regression Aversion and Mental Accounting, the three factors are biases in making stock trading decisions, is one of the factors driving the fast or slow growth of millennial generation interest for invest in the stock market.

From the results if the data stand out from 3 variables are variables *Mental Accounting* is 81, 8% means Makassar millennial investors have already made and to understand the separation of financial accounts as well as the levels of risk of each investment kalsifikasi, *Loss aversion* 62.7% means that the investor has a

millennial Makassar fear of loss or *risk averse*, that is the nature of investors who avoid risk, then the *Regression Aversion* factor of 2.3% means that Makassar's millennial investors regret the level of loss experienced very low which is influenced by several factors previously described. What is expected is that the *Loss Loss* factor will decrease with stock education, the level of *regret aversion* will be maintained and *Mental Accounting* reduced with an increase in stock education.

From the results of the analysis there is hope in the future that the growth in the number of millennial investors in Makassar will grow and increase significantly in line with the increasingly widespread government programs through the OJK and the Makassar Capital Market as well as securities in Makassar providing stock market education through the Let's Save Stocks, Schools program Capital Market, Stock Harvesting and various other educational programs .

V. CLOSING

5.1 Conclusions

This study aims to analyze whether there are Loss Aversion, Regression Audit and Mental Accounting behavior in making investment decisions of young investors in Makassar. Based on the results of research and discussion, it can be concluded that:

1. There is *Loss Loss* behavior in investment decisions of young investors in Makassar . This challenges that they will likely continue to retain their investments if the selling price of their investments is lower than the purchase price of the investment.
2. There is no *Regret A version of the* behavior in investment decisions of young investors in Makassar . This makes them more likely to be influenced by risk averse attitudes in making investment decisions.
3. There is an influence of *Mental Accounting* in decision making of young investors in Makassar. This shows that Makassar's millennial investors have separated their financial accounts for different investments.

1.2 Suggestions

In this study there are still many shortcomings, one of which is in this study only uses one factor, namely the prospect factor . In these two factors only take loss aversion , regret aversion, and mental accounting because it is thought to affect the investment decisions of young investors in Makassar.

Therefore , researchers provide advice as a consideration for further research so that the research conducted can be better and have greater benefits. Any suggestion from researchers for further research is expected to be able to involve four factors in behavioral finance (heuristic factors, prospect factors, herding fact ors, and market factors) not just prospect factors.

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REFERENCES

- [1]. Andrian Sumtoto dan Njo Anastasia (2015) Perilaku Keuangan Dalam Pengambilan Keputusan Berinvestasi Properti Residensial di Surabaya, *FINESTA* Vol. 3, No. 1, (2015) 41-45.
- [2]. Enda Ayu Charissa (2018), Analisis Pengaruh Adanya Anchoring Bias Dan Loss Aversion Dalam Pengambilan Keputusan Investasi Investor Di Yogyakarta , Skripsi, Universitas Islam Indonesia Fakultas Ekonomi Yogyakarta
- [3]. Jamali, Mohammad., Mohammad Hossein Ranjbar; Bijan Abedini (2014), Analyzing The Effective Behavioral Factors On The Investors' Performance In Tehran Stock Exchange (TSE). *International J*
- [4]. Jaswani, T. (2008). Function And Purpose of Stock Market. Retrieved from <http://www.articlesbase.com/investing-articles/function-and-purpose-of-stock-market-582881.html> *Journal of Art & Humanity Science (IAHS)*, 1 (2), hal:1-7. e-ISSN: 2349-5235
- [5]. Javed, Aaqida., Usman Ali (2013), Empirical testing Of Heuristics Interrupting The Investor's Rational Decision Making. *European Scientific Journal*, 9 (28), hal: 113. e - ISSN 1857- 7431
- [6]. Javed, Aaqida., Usman Ali (2013), Empirical testing Of Heuristics Interrupting The Investor's Rational Decision Making. *European Scientific Journal*, 9 (28), hal: 113. e - ISSN 1857- 7431
- [7]. Kahneman, D., & Tversky, A. (1979). Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrika*, 47, 263-291. *Econometrica*, 47(2), 263–292. <https://doi.org/10.2307/1914185>
- [8]. Khan (2015), Impact Of Availability Bias and Loss Aversion Bias On Investment Decision Making, Moderating Role Of Risk Perception. *International Journal of Research Business in Management*, 1 (2), hal: 1-12. ISSN(E).

- [9]. Kimeu, Caroline Ndinda., Wydiff Anyango; Gladys Rotich (2016), Behavioural Factors Influencing Investment Decisions Among Individual Investors In Nairobi Securities Exchange. School of Business, Jomo Kenyatta University of Agriculture & Technology (JKUAT), 3 (4), hal: 1-16. e-ISSN 2312-9492.
- [10]. Lintner, G. (1998) Behavioral Finance: Why Investors Make Bad Decisions. *The Planner* 13 (1): 7 – 8
- [11]. Luong, Le Phuoc., Doan Thi Thu Ha (2011), Behavioral Individual Investors' Decision Making And Performance A Survey At The Ho Chi Minh Stock Exchange: Umeå School of Business, hal:1-114
- [12]. Muhanda, A.Dadan, Mei 2008. “10 Karakter unik konsumen Indonesia”, *Bisnis Indonesia*
- [13]. Haigh and list (2005), Do professional traders exhibit myopic loss aversion? an experimental analysis *Journal of Finance*, volume 60.
- [14]. Masomi, Sayed Rasol, Sara Ghayekhloo (2010), Consequences of Human Behaviors' in Economic the Effects of Behavioral Factors in Investment Decision Making at Teheran Stock Exchange; International Conference on Business and Economics research, 1 page 1-4
- [15]. Ngoc, Luu Thi Bich., (2014), Behavior Pattern of Individual Investors in Stock Market. *International Journal of Business and Management*, 9 (1), hal: 1-16. ISSN 18333850
- [16]. NM Waweru, E Munyoki, E Ulian (2008) The effects of behavioural factors in investment decision-making: a survey of institutional investors operating at the Nairobi Stock Exchange ,*International Journal of Business and Emerging Markets* 1 (1), 24-41
- [17]. Pompian, M. M. (2006). *Behavioral Finance and Wealth Management: How to Build from Portfolios That Account for Investor Biases*. Canada: Wiler Finance
- [18]. Rekik, Yosra Mefteh., Younes Boujelbene (2013). Determinants of Individual Investors' Behaviors: Evidence from Tunisian Stock Market. *IOSR Journal of Business and Management (IOSR-JBM)*, 8 (2), hal: 109-119. e-ISSN: 2278487X.
- [19]. Ricciardi V. And Simon, H. K. (2000). What is Behavior in Finance? *Business, Education, and Technology Journal*, Fall: 1 – 9
- [20]. Sitti Hamdana Rahman, *Bisnis.com*, 07 April 2019 | 02:38 WIB).
- [21]. Thaler, Richard H. 1999. “Mental Accounting Matters”. *Journal of Behavioral Decision Making*, vol. 12, pp. 183-206
- [22]. Yohnson, Regret Aversion Bias dan Risk Tolerance Investor Muda Jakarta dan Surabaya, *Jurnal Manajemen dan Kewirausahaan*, Vol.10, No. 2, September 2008: 163-168