

Herding Behavior, Overconfidence, Regret Aversion Bias on Investment Decisions

Lilian S Loppies^{1*}, Maria J.F Esomar¹, Innayah Nurulita Janah¹

¹Universitas Pattimura, Ambon, Indonesia

Jln. Ir M Putuhena Kampus Poka Ambon, Indonesia

*Email: dyahesomar@gmail.com

ABSTRACT

This study aims to examine the effect of herding behavior, overconfidence, regret aversion bias on the investment decisions of PT. Phintraco Sekuritas Ambon Branch. This study used quantitative research methods. The sample used is 30 investors of PT. Phintraco Sekuritas Ambon Branch. This study used a questionnaire with tested results as the data collection technique. Based on the results of the study, it can be concluded that 1). Herding behavior has no effect and is not significant on investors' investment decisions, as shown by the regression analysis results indicating that t_{count} of herding behavior is 1,685 with a significance of 0.104 (not significant). 2). Overconfidence has an effect and is significant on investment decisions 3) Regret aversion bias has no effect and is not significant on investors' investment decisions.

Keyword: *Herding Behavior, Overconfidence, Regret Aversion Bias and Investment Decision.*

DOI: <https://doi.org/10.55983/ijeset.v1i5.357>



INTRODUCTION

There have been substantial developments in investment in the Indonesian capital market. The success of an investor in terms of investing depends on how precisely the investor makes the investment decisions taken in terms of both investment and time so that the benefits obtained will be maximized. Due to the numerous risks, uncertainties, and future success implications, making investment decisions is not a simple task. It is well known that investors do not always make reasonable decisions while making investments. Sometimes, in responding to a decision, an investor may deviate in his behavior or decision making. Santoso contends that societal pressure and psychological influences on investors will have an impact on their decision making, leading to illogical investment decisions (Setiawan et al in Aristiwati & Hidayatullah, 2021). The existence of social factors which affect investors in terms of decision making, one of which is herding behavior. Investors who indicate herding behavior are irrational in their approach to making investment decisions since they are more likely to copy what other investors do. Irrational investors choose the same investment categories, engage in the same buying and selling transactions, and reach the same conclusions as other individuals or groups of individuals. However, rational investors do not follow the herd or make decisions when an efficient market is the main cause (Aristiwati & Hidayatullah, 2021).

Herding behavior is what renders the market inefficient and causes it to gravitate towards speculative bubbles. According to the findings of Afriani and Halmawati's research (2019), an investor will exhibit herding behavior when he relies more on information which has been verified by many people, rather than on his own judgment, because of the belief that the investment decisions or choices made by the majority cannot be incorrect (Aristiwati & Hidayatullah, 2021). As an example that can be frequently found in the investment sector, namely in stock investments, too frequent buying and selling will cause new investors to only be interested in those who earn profits. Especially if you hear success stories of people by using their strategy. This increases the profitability of the momentum strategy, at least in a short term. But it can also result in a bubble and a sharp decline in stock prices. Being fundamentally unique as a human being is really challenging, especially when feeling panicked. FoMO (fear of missing out), will increase anxiety and reduce one's rationality in trading stocks.

Overconfidence is a condition in which an investor tends to be too confident in his skills and expertise when making decisions. According to research by Fridana and Asandimitra (Fridana & Asandimitra, 2020), overconfidence influences investor behavior because investors have good financial knowledge, high confidence in their decision making, use other people as references in taking action, take precautions when making decisions and consider the risks before making an investment. This bias implies that investors frequently believe that analysis serves as the foundation for wise transaction decisions, even though this is untrue.

Regret aversion bias is a trend of investors to avoid regrets because of decision making errors which result in less-than-optimal results (Akinkoye & Bankole, 2020). According to Budiarto, the regret aversion bias makes investors unwilling to sell long-term investment assets which they would have sold for a profit (Mahadevi & Haryono, 2021). An investor is said to have a regret aversion bias if they avoid making decisions out of concern which they will be regrettable in the future. This has a really straightforward emotional process. Emotional suffering results from regret.

In the city of Ambon, the distribution of SINGLE INVESTOR IDENTIFICATION (SID) has grown significantly and is steadily rising. There will be a 4098 SID increase in 2021. This sum represents the total number of SID from stock investors, the majority of whom are members of the Millennial Generation and Gen-Z. Typically, stock investments made by investors go through the relevant securities company; in this case, the targeted securities have evidence of share ownership in a public company. A securities company is a company which has obtained an OJK business license to conduct business operations as an intermediary for broker-dealer representatives, underwriter representatives, or other activities in compliance with the guidelines established by the capital market supervisor. The Indonesia Stock Exchange (IDX), as is also well known, has partnered with a number of securities companies to provide a system or method of bringing together investors to make offers to purchase and sell shares. One of the securities companies which cooperate with the Indonesia Stock Exchange (IDX) is PT Phintraco Sekuritas.

This study used SID investors at PT. Phintraco Sekuritas Ambon Branch, which consists of 30 investor respondents. Each respondent consists of 20 respondents or 64.5% male respondents and 10 female respondents or 35.5% with various age levels, namely Age 17-22 years as many as 3 respondents or 10%, age 23-28 years as many as 17 respondents or 56.7%, age 29-35 years as many as 7 respondents or 23.3%, age > 35 years as many as 3 respondents or 10%. Each responder can be observed to have one of the following occupations: student (5 respondents, or 16.7%), civil servant (4 respondents, or 13.3%), private employee (10 respondents, or 33.3%), entrepreneur (3 respondents, or 10%), and other worker (8 respondents, or 26.7%). Seven respondents, or 23.3%, of the respondents have experience investing in the past six to twelve months; 19 respondents, or 63.3%, have experience investing in the past one to five years; and four respondents, or 13.3%, have experience investing in the past five years or more. Herding behavior, overconfidence, and regret aversion bias are things which need to be taken into account while making investments because if they are not, investor will suffer.

METHOD

This study used a quantitative methodology and is classified as associative research. The purpose of associative study is to ascertain how two or more factors interact (Sugiono, 2008). The criteria for the sample are:

1. Investors registered with PT Phintraco Sekuritas
 2. Investors who already have stock accounts in securities listed on the IDX
 3. Investors who have experience investing in the capital market for at least 6 months
- In this study, 30 investors who are registered at PT Phintraco Sekuritas Ambon Branch served as the sample.

Table 1. Operational definition of research variables

Variable	Definition	Indicator	Scale
Herding behavior	Herding behavior is the tendency to mimic the actions of others rather than adhering to their views or information obtained (Pranyoto et al., 2020)	1. Investment type 2. Stock Instruments 3. Reaction	Likert 1-5

		4. Decision making based on the most choices	
Overconfidence	Overconfidence is a condition in which an investor tends to believe that his abilities are superior than those of other investors. (Ar-Rachman, 2018)	1. Have faith that a plan will be successful. 2. Ability to accurately predict stocks 3. Able to recognize winning stocks in the future 4. Have investment performance above the average of other investors 5. Superior investment skills to other investors 6. Have a better investment experience than the average investor.	Likert 1-5
Regret aversion bias	An experience which makes people regretful is known as regret aversion bias. (Sukamulja et al., 2019)	1. Feeling of remorse when investing 2. The effect of the experience of loss on the subsequent investment	Likert 1-5
Investment Decision	Investment decisions are a matter of how financial managers (in this study each individual) should allocate funds into a form of investment which can bring profits in the future (Sekaran et al., 2018)	1. Return / Investment Profit 2. Risk 3. The relationship between return and risk	Likert 1-5

Descriptive statistics, data quality test, classical assumption test, and hypothesis test were all used in the data analysis method. Multiple linear regression analysis was used to evaluate hypotheses on the impact of the independent variable on the dependent variable.

Regression analysis was used to predict the effect of more than one independent variables on one dependent variable, either partially or simultaneously. The Multiple Regression Equation is as follows: $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$

Description: Y = Investment Decision; α = Constanta ; X_1 = Herding Behavior; X_2 = Overconfidence; X_3 = Regret Aversion; β_1 - β_3 = Multiple regression coefficient; e = error term. This hypothesis test was conducted using the partial regression test and the coefficient of determination test (t-test).

DISCUSSION

The aim of this study is to ascertain if herding behavior, overconfidence, and regret aversion have a positive and substantial impact on the investment decisions made by PT Phintraco Sekuritas Ambon Branch investors. A total of 30 respondents (investors) from the three most recent years of 2019–2021 participated in this study, in which 5 are students, 4 are civil servants (PNS), 10 are private employees, 3 are entrepreneurs, and 8 are other workers.

Herding behavior (X_1) is recognized to have no impact and to be insignificant on investment decisions, which are the dependent variable. The obtained t_{count} of 1.685 with a significance of 0.104 shows this. Herding behavior has no impact and is not significant on investors' investment decisions, as indicated by the significance value of < 0.05 . Where the value of $t_{\text{total}} = (\alpha/2; n-k = t (0.025; 30-4) = (0.025; 26) = 2.056$ and the Herding Behavior variable (X_1) $0.104 > 0.05$ can be noticed. It can be concluded that H_1 , which states that PT Phintraco Sekuritas Ambon Branch investors are significantly impacted by herding behavior, is **rejected**.

Investment Decision Making is one of the circumstances under which investors make decisions and make investments on the capital market. Applying a proper process for making investment decisions would be expected to maximize the benefits from the results that will be attained later. A good knowledge of attitudes and implementation of investors is required in order to maximize investor welfare while making investment decisions. Low herding behavior, in this case following the opinions of the vast majority of investors without first obtaining reliable and accurate information, demonstrates that investors have not fully comprehend the useful information. The results of this study indicate that PT. Phintraco Sekuritas Ambon Branch's investment decisions are unaffected by herding behavior and are not significantly impacted by it. This is due to the fact that respondents in this study frequently use information obtained through internet technology as the basis for their decision making regarding investments. Investors typically do not make their investment decisions in accordance with those of other investors. This shows that investors in making investment decisions are based on the information they obtained and based on their respective considerations. This investor behavior can also occur because there is knowledge available that is regarded as being sufficient as a foundation for making investment decisions, which prevents investor behavior from just following along. The majority of investors in this study are young individuals or millennials, who have the advantage of learning new information more rapidly because they are skilled at using technology and have the knowledge to find reliable and abundant information. Average responders who are aware of investments through the internet or social media reflect this. Accompanied by the availability of enough data, which may be used as a foundation for decision making. The results of this study are in line with research conducted by Syifa

Aulia Mahadevi and Nadia Asandimitra (2021), Aristiwati and Hidayatullah (2021), Timothy Salvatore and Martha Ayerza Esra, S.E., M.M., (2020).

Investment decisions as the dependent variable are known that the Overconfidence (X2) variable obtained Overconfidence (X2) variable has a significant effect on investment decisions. This can be seen from the significant Overconfidence (X2) $0.027 < 0.05$, and $t_{total} = t(\alpha/2; n-k) = t(0.025; 30-4) = (0.025; 26) = 2.056$. It means that the value of t_{count} is greater than t_{table} ($2.344 > 2.056$), then H_0 is rejected and H_2 is accepted. Therefore, it can be inferred that H_2 is accepted, which indicates that X2 has an impact on Y. Where, t_{count} is 2.344 with a significance of 0.027. Because the significance value is more than 0.05, overconfidence significantly influences investment decisions. It can be concluded that H_0 , which states that Overconfidence has no significant effect on the investment decisions of PT Phintraco Sekuritas Ambon Branch investors in the last three years 2019 - 2021, is rejected. In this study, the writers used 6 statements. The first of the six statements used in this study, "When I establish a plan, I am convinced it will work," has the highest contribution, totaling to 60%, because having positive confidence and believing in future decisions will have a good impact on investors' investments in the future. So that investors' investment conditions can be organized. The two statements that contribute the least, with a combined 26.7%, are the second (My stock predictions are always right) and fourth (My investment performance is significantly better than the average of other investors). This is due to investors who are overconfident when evaluating their abilities against those of other investors. So that investors with a high degree of confidence in their judgment will therefore affect the amount of money they make, as well as their level of desire. Confidence is important for those who are able to occupy themselves well without expecting anything. This is an aspect that still need improvement if investors are to adopt a more positive attitude and exercise greater caution when making investment decisions both now and in the future.

This is in line with the theory of behavioral finance, which contends that irrational behavior is characterized by an overconfidence in one's skills and experience and an underestimation of the risks one will face. Due to their ability and the fact that they have never been proven wrong, overconfident investors are more likely to make bold decisions. The result of the study indicates that overconfidence has a positive and significant impact on investors' investment decisions. This is in accordance with research conducted by (Addinpujoartanto & Darmawan, 2020) and (Salvatore & Esra, 2020) that overconfidence has a positive effect on investment decision making. According to Pompian in Pradhana, the overestimation of their knowledge and the underestimate of risks are the root causes of investors' overconfidence. As a result, overconfident investors will take greater risks while making decisions, as opposed to underconfident investors, who are more cautious. Overconfident investors not only have great returns on their investments but also have great confidence in their ability to predict market circumstances. The results of this study are in line with research conducted by (Fridana & Asandimitra, 2020)

Impact of Regret Aversion Bias Variable on Investment Decision

According to the test results from this study, the regret aversion bias (X3) variable has no impact and is not statistically significant on investment decisions. This is demonstrated by the significant Regret Aversion Bias (X3) $0.511 > 0.05$, and the value of $t_{total} = t(\alpha/2; n-k) = t(0.025; 30-4) = (0.025; 26) = 1.706$. It means that the value of t_{count} is smaller than t_{table} ($-0.66 < 2.056$), then H_0 is accepted and H_1 is rejected. Therefore, it may be inferred that H_3 is rejected, which suggests that X3 has no impact on Y.

Regret aversion is the behavior of regretting too deeply as a result of investing, especially when experiencing large losses. If in investing, regret aversion is defined as excessive fear caused by bad decisions (Corzo et al, 2014). Investors who behave in this manner will experience doubts about investing as a result of suffering losses from doing so (Sri Utami Ady & Arif Hidayat, 2019). Someone who exhibits regret aversion will avoid making definite decisions out of fear, when they believe the decision to be made will not have unsatisfactory benefits. Therefore, it can be considered contrary to the theory used, namely behavioral finance theory, which examines a person's attitude in thinking, considering, and making a decision. When an investor responds to a situation or makes a decision, behavioral biases might cause deviations in that investor's behavior or decision making. (Ramdani 2018). In other words, even after years of investing experience, investors of PT. Phintraco Sekuritas Ambon Branch still have a positive and logical mindset in considering an investment decision. Despite having long experience in investing, but there is no feeling of trauma in making a decision to invest in the capital market again. The experiences which have caused investors to lose have had no impact on investors' most recent investment decisions. The results of this study are supported by research conducted by (Salsabila, 2020) and (Salvatore & Esra, 2020) in which the decision making process for investors is not positively impacted by regret aversion. It is concluded that investors are less likely to feel disappointed or regretful with the investment results obtained in the past.

CONCLUSION

Based on the findings of this study conducted on investment decisions made by PT Phintraco Sekuritas investors over the past three years, it is known that 33.3% of investors make investment decisions performed by private employees and categorized as very high, while only 10% of investors make investment decisions performed by entrepreneurs and it is categorized as very low. In this case, entrepreneurs tend to consider their daily expenses, and private employees tend to be more aware of the benefits of investing and the benefits of saving for their future needs. If investors have good investment knowledge, it will also benefit the investors themselves, who will be more responsible for their investment decisions and more careful in their financial planning. The results of data analysis show that herding behavior has no significant effect, overconfidence has a significant effect and regret aversion bias has no significant effect on investment decisions of PT Phintraco Sekuritas Ambon Brach investors.

REFERENCES

- Addinpujoartanto, N. A., & Darmawan, S. (2020). Pengaruh Overconfidence, Regret Aversion, Loss Aversion, Dan Herding Bias Terhadap Keputusan Investasi Di Indonesia. *Jurnal Riset Ekonomi Dan Bisnis*, 13(3), 175. <https://doi.org/10.26623/jreb.v13i3.2863>
- Akinkoye, E. Y., & Bankole, O. E. (2020). Effect of Emotional Biases on Investor's Decision Making in Nigeria. *International Journal of Business and Management Future*, 4(1), 33–39. <https://doi.org/10.46281/ijbmf.v4i1.548>
- Ar-Rachman, A. R. (2018). Pengaruh Overconfidence Bias Dan Bias Optimisme Terhadap Pengambilan Keputusan Investasi Pada Investor Di Yogyakarta. *Journal of Chemical Information and Modeling*, 53(9), 287.
- Aristiwati, I. N., & Hidayatullah, S. K. (2021). Pengaruh Herding Dan Overconfidence

- Terhadap Keputusan Investasi (Studi Pada Nasabah Emas Kantor Pegadaian Ungaran). *Among Makarti*, 14(1), 15–30. <https://doi.org/10.52353/ama.v14i1.202>
- Fridana, I. O., & Asandimitra, N. (2020). Analisis Faktor Yang Memengaruhi Keputusan Investasi (Studi Pada Mahasiswi Di Surabaya). *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, 4(2), 396. <https://doi.org/10.24912/jmieb.v4i2.8729>
- Mahadevi, S. A., & Haryono, N. A. (2021). Pengaruh Status Quo, Herding Behaviour, Representativeness Bias, Mental Accounting, serta Regret Aversion Bias terhadap Keputusan Investasi Investor Milenial di Kota Surabaya. *Jurnal Ilmu Manajemen*, 9(2), 779. <https://doi.org/10.26740/jim.v9n2.p779-793>
- Pranyoto, E., Bisnis, E., Informatika, I., Alam, J. Z. A. P., Ratu, N. L., & Lampung, B. (2020). *Herding Behavior, Experienced Regret Dan Keputusan Investasi Pada Bitcoin*. 06(01), 29–43.
- Salsabila, N. eka putri ayu. (2020). Pengaruh Overconfidence, Illusion Of Control, Loss Aversion bias, Dan Regret Aversion Bias Terhadap Pengambilan Keputusan Investasi. <Http://Eprints.Perbanas.Ac.Id/>, 8.
- Salvatore, T., & Esra, M. A. (2020). Pengaruh Overconfidence, Herding, Regret Aversion, Dan Risk Tolerance Terhadap Pengambilan Keputusan Investasi Investor. *Jurnal Manajemen*, 10(1), 48–56.
- Sekaran, Holliday, C. O. J., Schmidheiny, S., Watts, P., Schmidheiny, S., Watts, P., Montgomery, H., Pmi, University of Pretoria, Gentry, R. R., Lester, S. E., Kappel, C. V., White, C., Bell, T. W., Stevens, J., Gaines, S. D., Zavadskas, E. K., Cavallaro, F., Podvezko, V., ... Branch, B. (2018). Title. *Pakistan Research Journal of Management Sciences*, 7(5), 1–2.
- Sri Utami Ady & Arif Hidayat. (2019). *International Journal of Scientific & Technology Research*. 560054.
- Sukamulja, S., Meilita, A. Y. N., & Senoputri, D. (2019). Regret Aversion Bias, Mental Accounting, Overconfidence, and Risk Perception in Investment Decision Making on Generation Y Workers in Yogyakarta. *International Journal of Economics and Management Studies*, 6(7), 102–110. <https://doi.org/10.14445/23939125/ijems-v6i7p116>