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# The Effect of Financial Literacy, Herding Behaviour and Overconfidence on Investment Decisions in the Millennial Generation

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**Abstract.** This study aims to examine and analyze the influence of financial literacy, herding behaviour, and overconfidence on the investment decisions of the millennial generation in Mataram. A total of 100 millennial investors in Mataram City became respondents in this study. Structural Equation Modeling using intelligent PLS software was used in this study to analyze the data. The study's results prove that financial literacy and overconfidence have a positive and significant effect on the investment decisions of the millennial generation.

In contrast, herding behaviour does not have a positive and considerable influence on the investment decisions of the millennial generation. The results of this study indicate that in addition to investors having good financial literacy, investors can also behave biased in capturing investment decisions, such as being too confident in their information. Excessive trust in investors can make investors wrong in analyzing, impacting lousy investment decisions.

**Keywords:** investment decisions; financial literacy; herding behaviour; overconfidence.

## INTRODUCTION

In line with the current economic growth, the stock market has become the most effective means of encouraging national economic development and building infrastructure [11]. The capital market is the best way to increase economic growth and national development. Many people are starting to understand the value of investing. Investing in stocks offers a significant return on investment [14]. The increase in the number of individual investors (Single Investor Identification) encourages the development of the derivatives market in December 2021 by 7,489,337 investors. The number of individual investors is believed to increase yearly from 2017 to 2021 based on Indonesian Central Securities Depository (KSEI) data. The increase in SID numbers from 2020 to 2021 is around 3,608,584, or about 93% from 3,880,753 to 7,489,337.

In addition, according to the latest investor demographic data in Indonesia, Java is the island with the highest concentration of investors at 69.83%, while Bali, NTB and NTT are growing

much slower, at 3.33% in 2021. According to data KSEI, the capital market in Indonesia is dominated by the millennial generation, which was around 60.02% of the total 7,489,337 investors. This shows the importance of investing in the millennial generation, an age that has developed computers and the internet and can be easier to learn related to finance and apply it to life. This shows that the millennial generation has great potential to invest in the capital market.

Currently, the millennial generation is the generation that dominates the population in various regions. The millennial generation in Mataram has massive information technology capabilities, making accessing everything they need easier. The millennial generation has great potential to invest in the capital market [15]. With increasing investment activity, the success or failure of an investor is determined by whether or not the investor's investment decisions are right, both in determining the type of investment and the time to invest [16]. Investing in one or more assets in the hope of earning a profit in the future is known as an investment decision. A tiered tempo

causes investment decisions to be considered carefully because they have a long-term impact. But along with developments, in making decisions, not all investors behave rationally, but behavioural factors within investors influence investors in making investment decisions [17].

Millennials typically exhibit discriminatory behaviour that is emotionally erratic and uncontrollable, thus making quick decisions about investing. Decisions are based on human emotions, traits, preferences, and involvement which are part of intelligence and social existence. In addition, overconfidence and herd characteristics (following behaviours) can be explained by behavioural finance theory. Millennial investors often make decisions that are not based on correct financial theory, which can lead to cognitive bias. Cognitive bias is a mental process not supported by solid reasoning and not based on rational considerations, so there are deviations and errors of judgment, which are irrational behaviour.

Investors with a rational mindset often take the time and carefully consider their investment options to reduce the losses. According to the theory of planned behaviour, an investor's attitude will impact whether or not they are interested in making the desired decision. The knowledge of finances owned by an investor will affect the results of his investment decisions when deciding to start investing. Investors who are less rational or irrational often make choices influenced by psychology or behaviour based on their emotions or feelings, resulting in poor choices. This irrational mindset can lead to biased decisions in stock transactions [19]. Bias in financial behaviour is explained by overconfidence theory and economic dissonance bias theory (cognitive dissonance theory) in behavioural finance theory.

Among the aspects that can impact investors' requirements to invest are financial literacy and cognitive bias, namely herding behaviour and overconfidence. Financial literacy is defined as an understanding of financial concepts by an investor, which allows investors to have the ability to make sound investment decisions and the confidence to manage personal finances so that, in the end, investors can make healthy investments decision. When an investor decides to submit a decision, he must have a strong understanding of finance (financial literacy) so that the decision has a clear direction that can be used as a motivator for investors when making investment decisions.

When investors make investment decisions, investors can be influenced by herding behaviour. This behaviour is the behaviour when investors around them impact investors. Other investors' decisions easily influence someone with herding behaviour, which can affect the investment decision-making [7]. Herding behaviour is only done by investors because there is no clear information that creates an intention to track the behaviour of other investors who have been there first. Herding behaviour is a biased personality that follows the steps of other shareholders in making investment decisions [16].

The level of investor confidence when it has been successful with the investments made will continue to increase to make other investments in the future. This self-confidence is called overconfidence [24]. This overconfidence behaviour will be seen in investors who overestimate their skills when evaluating a company's capacity as an investment destination [15].

Previous studies that tested different factors and found varying results examined the determinants of investment decisions. Research [8] shows that financial literacy impacts investment decisions, contrary to analysis [22], which shows that the financial literacy of investors cannot be the cause of whether or not an investor is right in determining reasonable and correct decisions. Research [1] reveals that herding behaviour affects investment decisions; conversely, with research [16], herding behaviour does not influence investment decision variables. Study [19] found that overconfidence behaviour affects investment decisions,

Many previous studies, including articles related to this research topic, were used as references during research development. Study [2] investigated the effect of financial literacy on capital market investment decisions. This analysis establishes that investment decisions influence literacy. Students who have a strong understanding of investing and finance should have a strong interest in investing because they understand the choices they will make. This financial literacy debate is one aspect that does not only emphasize investment skills and awareness. Factors that can influence economic decisions about when to invest are taking into account the risks and minimum capital requirements and is one of the

The influence of psychological factors on the investment decisions of young investors in Ambon City shows the act of following other investors

and relying more on group knowledge than individual information; a study conducted by [15]. Assuming this reaction can simplify investors to get an accurate explanation, more investors are also being watched. Shareholders who have encountered deficits in the past may exhibit herding behaviour in making decisions by choosing to emulate other investors. Following in the footsteps of other investors is the impact of the doubt when selecting stocks to invest in.

The research [4] surveyed gold customers in Hungary; this study looks at the impact of overconfidence behaviour on investment decisions. Study findings reveal overconfidence has a beneficial effect on investment choices. According to respondents' responses, they are confident in their financial decisions and highly confident in their knowledge and skills in the investment field. Research that explains cognitive aspects such as self-confidence results in a lack of investor sensitivity and accurate understanding of information, supported by discussions about the impact of overconfidence on financial decisions. Overconfident investors believe they can exploit their knowledge or information to their advantage, but this is entirely delusional.

It is essential to re-examine the effect of the variable financial literacy, herding behaviour, and overconfidence in investment decisions. As previously mentioned, investors in West Nusa Tenggara occupy a low position along with Bali and NTT, with a percentage of 3.33%, so this research wants to find out the attitude or behaviour of millennial investors, especially those in Mataram, which is the object of this research. In addition, the uniqueness of this study is to use millennial participants from Mataram to evaluate the behaviour of investors in the capital market. Concepts of behavioural finance theory include overconfidence theory and financial cognitive dissonance theory. This research is expected to empirically prove the theory of planned behaviour, economic dissonance bias theory and overconfidence theory in behavioural finance theory as a theory that supports investment decisions in the millennial generation. This research is expected to provide various utilities to the broader community to obtain additional information related to things that must be considered before investing, especially in behaviours that can cause investors to do things that are detrimental to themselves. For financial and educational institutions, the results of this research are expected to be used as motivation to provide intensive train-

ing and seminars related to investor attitudes and behaviour, whether deviant or not.

## METHODS

In this research, the associative research method is used, which aims to determine the relationship between the variables studied [23]. Quantitative methodology is used in this research to collect data in numerical form (numbers) to be tested and analyzed to obtain generalizable scientific results [17]. The respondents in this research are millennial generation investors in Mataram. The reason for choosing a research location for investors in Mataram is because Mataram is a city where researchers are located and can be reached by researchers. This research was conducted by distributing questionnaires to investors in the Mataram who participate in securities companies that actively operate online stock transactions on the stock exchange.

In this study, the population of Mataram City who invests in the capital market cannot be known with certainty. So, determining the number of samples used is using the purposive sampling technique. Regarding the qualifications used to determine the respondents for this research, they are (1) Millennials born in the 1980–2000 period; (2) they have or are currently undergoing investment; (3) Domiciled in Mataram City.

To calculate the sample in a population that is not known with certainty in this research [21]:

$$n = \frac{\left(\frac{Z_a}{2} \times \sigma\right)^2}{e^2}, \quad (1)$$

$$n = \frac{(1,96) \times (0,25)^2}{0,05^2} = 96,04$$

where  $n$  – sample value;  $Z$  – level of confidence/significance;  $e$  – 5% margin of error;  $n$  – level of significance.

With 95% confidence or  $Z = 1.96$  and  $e = 0.05$ . The calculation results show that 96.04 respondents or rounded up to 100 respondents. The statements in this research are measured using a Likert scale of 1 to 5. Structural equation modelling (SEM) was used to evaluate and test research data using smart PLS software. In this research, the measurement used is reflective form measurement, which shows that variance is a manifestation of a latent construct, where all indicators



move together so that if there is a change in one indicator, it will change the other indicators. In the reflective form, it is assumed that the manifestation variable can measure the indicators that form the construct with the latent variable.

$$KI = \alpha + \beta_1 FL + \beta_2 HB + \beta_3 OC + \varepsilon \quad (2)$$

KI – Investment Decision; FL – Financial literacy; HB – Herding behaviour; OC – Overconfidence;  $\alpha$  – Constant regression coefficient;  $\beta_1$  – Regression coefficient of each proxy;  $\varepsilon$  – Error term.

The steps of the research method using a structural equation modelling approach through smart PLS is to test the outer model, which is carried out using the convergent validity test, discriminant validity, composite reliability, Cronbach alpha and goodness fit of the model test, and inner model analysis, including  $R^2$ ,  $Q^2$  Predictive Relevance, Path Coefficient and hypothesis testing.

The hypotheses of this research are:

H<sub>1</sub> – Financial literacy has a positive and significant effect on investment decisions in Millennial Generation;

H<sub>2</sub> – Herding behaviour has a positive and significant effect on investment decisions in Millennial Generation;

H<sub>3</sub> – Overconfidence positively and significantly affects investment decisions in Millennial Generation.

ation. This research applies a one-tailed test so that the t-table used in this research is 1.67.

## RESULTS AND DISCUSSION

The West Nusa Tenggara capital market is dominated by millennial investors, according to the Indonesia Stock Exchange (IDX) in Mataram, where the number of investors aged 18 to 25 years has reached 16,471 (SID). Then investors in the capital market aged 26 to 30 years with 6,341 SID and investors aged 31 to 40 years with 5,811 SID. The total SID for investors aged 41 to 100 is 3,583. The research questionnaire was made from the questionnaire used in previous studies. With a sample of 100 Mataram city respondents, the purpose of descriptive statistical analysis is to provide an overview of each data for both exogenous variables, namely financial literacy, herding behaviour, and overconfidence and endogenous variables, namely investment decisions.

### Outer Model Test Results

The validity of the study was tested. The first is discriminant validity testing. This test is used to confirm that each statement represents the concept of the variable for discriminant validity testing. For discriminant, validity testing is observed through a cross-loading score. This test ensures that each statement indicator has a different concept.

Table 1 – Discriminant Validity Test Results

Indicator	Investment Decision	Indicator	Financial literacy	Indicator	Herding behaviour	Indicator	Overconfidence
KI1	0.641	FL1	0.735	HB1	0.934	OC1	0.757
KI2	0.615	FL2	0.629	HB2	0.939	OC2	0.875
KI3	0.688	FL3	0.608	HB3	0.906	OC3	0.897
KI4	0.691	FL4	0.660	HB4	0.893	OC4	0.821
KI5	0.746	FL5	0.624				
KI6	0.695	FL6	0.800				
KI7	0.777	FL7	0.717				
KI8	0.778	FL8	0.756				
KI9	0.723	FL9	0.693				
		FL10	0.743				
		FL11	0.801				
		FL12	0.756				

From table 1, the results of the discriminant validity test can be seen that some statement indicators get an outer loading below 0.7. Such as the indicators KI1, KI2, KI3, KI4, and KI6, which successively get an external loading value of 0.641, 0.615, 0.688, 0.691 and 0.695, are indicators that explain investment decision variables, FL2, FL3, FL4, FL5, FL9 which have an outer loading value of 0.629, 0.608, 0.660, 0.624 and 0.693. Several indicators with an external loading value below 0.7 indicate that the indicators for investment decision variables and financial literacy have low

validity because they do not meet the loading requirements. So based on this, before the next test is carried out, the invalid indicator must be removed (dropping), but after dropping, it is found that there are still indicators that have an outer loading below 0.7, so the deletion is carried out again for the second. A re-calculation is carried out to give confidence that the external loading value is above 0.70. Table 2 shows the results of the second retest (dropping) for the discriminant validity test.

Table 2 – Discriminant Validity Test (Dropping)

Indicator	Investment Decision	Indicator	Financial literacy	Indicator	Herding behaviour	Indicator	Overconfidence
KI5	0.751	FL1	0.758	HB1	0.935	OC1	0.738
KI7	0.883	FL6	0.738	HB2	0.940	OC2	0.883
KI8	0.829	FL8	0.770	HB3	0.906	OC3	0.906
KI9	0.828	FL10	0.834	HB4	0.891	OC4	0.822
		FL11	0.846				
		FL12	0.837				

Then, a re-calculation is carried out to confirm that the outer loading value is above 0.70. Table 2 shows the results of the second retest (dropping) for the discriminant validity test. Then, a re-calculation is carried out to confirm that the outer loading value is above 0.70. Table 2 shows the results of the second retest (dropping) for the discriminant validity test.

Based on table 2, after the deletion test, it can be seen that all indicators have discriminant validity values above 0.7. Therefore it can be interpreted that the discriminant validity test of all statements for all variables is said to be valid, and then the concurrent validity test is carried out. Convergent and discriminant validity tests were used in this research to test the validity. The calculation of the contemporary validity test of this research can be seen in table 1. In this research, the convergent validity test is applied to know the validity of the variable and to find out whether the variable has a good construct. This test is measured using the average variance extracted (AVE) score. Discriminant validity testing in this research was assessed based on the rule of thumb with the average variance extracted (AVE) value required to be above 0.50 [13]. Table 3 shows the results of AVE from the Convergent Validity test.

Table 3 – Convergent Validity Test Results

Variable	Average Variance Extracted
Financial literacy	0.637
Herding behaviour	0.843
Overconfidence	0.705
Investment decision	0.680

The validity of each indicator variable used is assessed using convergence validity. Assuming the variable has a high correlation with the component, this test aims to ascertain whether the variable is an accurate representation of the element. The results of table 3 show that the AVE value is more significant and higher than the 0.5 (rule of thumb) used in determining convergent validity in this study. This means that the fact of all variables is declared valid.

The composite reliability and Cronbach alpha reliability tests were used to conduct the reliability test in this research. The purpose of this reliability test is to establish the level of confidence in the variables under consideration. The general rule is that the value must be greater than 0.7, but 0.6 is still acceptable [13].

The two reliability tests (Table 4), composite reliability and Cronbach's alpha, show that the reliability value is above 0.70 or higher.

Table 4 – Reliability Test Results

Variable	Cronbach Alpha	Composite Reliability
Financial literacy	0.886	0.913
Herding behaviour	0.938	0.956
Overconfidence	0.859	0.905
Investment Decision	0.843	0.894

Therefore all variables in this research are considered reliable. It was determined that the questionnaire used was consistent and reliable.

Next is the goodness of fit model test, which is carried out to evaluate the suitability of the research model. If the SRMR score is  $< 0.10$ , it can be interpreted that the research model is feasible. The research model is not viable if the SRMR value is  $> 0.15$ . In this research, the fit model test produces the results in Table 5.

Table 5 – Goodness of Fit. Test Results

	Saturated Model	Estimated Model
SRMR	0.072	0.072

The test results show that the SRMR value is 0.072 based on this study's test findings. It shows that the structural formula used in this study can be applied.

*Inner Model Test Results.* Furthermore, testing is carried out for the inner model in this research. This study's internal model tests the coefficient of determination  $R^2$ ,  $Q^2$  predictive relevance, path coefficient and hypothesis testing. The coefficient of determination test is seen through the  $R^2$  assessment of 0.67, 0.33, and 0.19, which implies forming a strong, moderate and weak research model. The better the prediction value is given, the stronger the coefficient of determination proposed.

Table 6 – Results of the Coefficient of Determination

Variable	$R^2$
Investment decision	0.531

The  $R^2$ -test can be seen that be 0.531. Therefore, it can be concluded that the  $R^2$  of this research is included in the high category. Furthermore, the  $Q^2$  test can be seen based on blindfolding in the

cross-validated redundancy construct section. Where in this study, measured from the value of  $Q^2$  predictive relevance, the quality categorization of  $Q^2$  is 0.02 (weak), 0.15 (medium/moderate), and 0.35 (large). Table 7 shows the results of the calculation of the  $Q^2$  test.

Table 7 –  $Q^2$  Predictive Relevance Test Results

Variable	$Q^2$
Investment decision	0.326

Based on the test in table 7, it is found that the value of  $Q^2$  is 0.326. This result can be interpreted as the relative impact of the structural model on the measurement of endogenous variables is quite large. Furthermore, testing is carried out on how strong the effect and influence of exogenous variables on endogenous variables is by conducting a path coefficient test.

The influence of financial literacy on investment decisions is 6.347, as shown in Table 8, reflecting the highest path coefficient value.

Table 8 – Path Coefficient. Test Results

Variable	mean	STDEV	t-values
Financial literacy	0.578	0.091	6347
Herding behaviour	0.011	0.070	0.143
Overconfidence	0.187	0.088	2,065

Overconfidence in investment decisions has the second most significant effect, with a t-value of 2.065. In contrast, the slightest impact is indicated by the value of the herding behaviour variable of 0.143 for investment decisions.

*Hypothesis Test Results.* Hypothesis testing of this study was assessed through t-statistic scores and probability scores. It is done by comparing the statistical value with the t-table value and the p-value score with 5% alpha, and the t-statistic score used is 1.67. The following are the results of hypothesis testing in this study.

Table 9 – Hypothesis Testing Results

Variable	t-values	p-values
Financial literacy	6.347	0.000
Herding behaviour	0.143	0.443
Overconfidence	2,065	0.020

Based on the test results, the financial literacy variable has a t value of 6.347.

The t-value of this test is greater than the t-table value, which is  $6.347 > 1.67$ . Furthermore, the p-value for financial literacy is  $0.000 < 0.05$ , so  $H_1$  is accepted, that is, there is a positive and significant relationship between financial literacy to investment decisions, which has a substantial impact on investment decisions, investment decisions increase along with increasing financial literacy.

The t-value of the herding behaviour variable is  $0.143 < 1.67$ , which is smaller than the t-table value. The p-value of herding behaviour is  $0.443 > 0.05$ , which is greater than the alpha value. From this, we can conclude that  $H_2$  is rejected. This shows that herding behaviour does not positively and significantly impact Millennials' investment decisions. This table also indicates that overconfidence has a positive and statistically significant effect.

The result of t value  $2.065 > 1.67$ , which is greater than the value in the t table, and the p-value of overconfidence is  $0.020 < 0.05$ , so  $H_3$  is considered accepted. This shows that overconfidence influences the millennial generation's investment decisions positively and significantly. The Overconfidence of Mataram investors can explain this in their investment decisions. And the p-value of overconfidence is  $0.020 < 0.05$ , so  $H_3$  is considered accepted. This shows that overconfidence influences the millennial generation's investment decisions positively and significantly. The overconfidence of Mataram investors can explain this in their investment decisions. And the p-value of overconfidence is  $0.020 < 0.05$ , so  $H_3$  is considered accepted. This shows that overconfidence influences the millennial generation's investment decisions positively and significantly. The overconfidence of Mataram investors can explain this in their investment decisions.

*Influence of Financial Literacy on Millennial Generation Investment Decisions.* It can be concluded from the test that investment decisions have a positive and significant impact on the financial literacy aspect of the millennial generation of Mataram City. The test results align with research by [2], stating that financial literacy positively and significantly affects millennial investment decisions. This research provides insight into the importance of financial literacy for millennial investors in Mataram before making investment decisions. Investors will pay attention

to investments that will be considered fundamentally and technically wise because financial literacy assesses the ability of investors to handle their finances. Investors can manage their finances by making intelligent choices for long-term and short-term financial planning. Investors also understand financial concepts. This means that the increasing financial literacy of the millennial generation in Mataram allows investors to be better at making decisions regarding investment. This research's findings align with the theory of planned behaviour, showing that investors have control over the knowledge and information available to make wise decisions.

*The Influence of Herding Behaviour on Millennial Generation's Investment Decisions.* This study finds that herding behaviour does not positively and significantly affect investment decisions. This Millennial Investment Decision does not imitate the decisions that other investors observe or financial market movements when investors in Mataram make investment decisions, or millennial investors in Mataram make investment decisions based on their beliefs and information, contrary to the study conducted by [20], which says that there is an effect of herding on investment decisions. Instead, it is in line with the study [16], which proves that there is no influence of the herding behaviour variable on the investment decisions of the millennial generation. Millennial investors base their investment choices on their analysis, judgment, and information. And that sufficient information is provided to investors to make informed decisions about their investments without relying on the review or knowledge of other investors. The results of this study contradict the financial cognitive dissonance bias theory, where the theory states that investors tend to follow other investors if new and existing information received from other investors is not balanced.

*The Effect of Overconfidence on Millennial Generation Investment Decisions.* This research found that the level of overconfidence of millennial investors in the Mataram is high, as indicated by the results of hypothesis testing. Investors with high confidence believe they have more investment knowledge and expertise than other investors. This research is in line with the study [1], which proves that overconfidence affects investment decisions. This confidence in investors often causes investors to make mistakes in analyzing stocks which can lead to errors in investment decisions. The results of this study confirm

the overconfidence theory in behavioural finance theory, which explains that individuals can overestimate their abilities from the information they have received.

## CONCLUSIONS

Based on the survey results, financial literacy and overconfidence positively and significantly affect investment decisions for millennial Mataram, but the herd behaviour variable does not. These results indicate that investors in Mataram have a good understanding of the capital market. Still, it

does not rule out the possibility that investors may engage in discriminatory behaviour such as overconfidence which is proven to affect investment decisions. The findings of this research confirm the theory of planned behaviour as a theory that supports the occurrence of investment decisions through financial literacy.

This research also confirms the financial dissonance bias theory and overconfidence theory, which reveals that there are psychological factors for investors when making investment decisions.

## REFERENCES

1. Adielyani, D., & Mawardi, W. (2020). *Pengaruh Overconfidence, Herding Behaviour, Dan Risk Tolerance Terhadap Keputusan Investasi Saham (Studi Empiris Pada Investor Milenial Di Kota Semarang)*. Retrieved from <https://repofeb.undip.ac.id/6089/>
2. Alaaraj, H., & Bakri, A. (2020). The Effect of Financial Literacy on Investment Decision Making in Southern Lebanon. *International Business And Accounting Research Journal*, 4(1), 37. doi: 10.15294/ibarj.v4i1.118
3. Arianti, B. (2022). *Literasi Keuangan (Teori Dan Implementasinya)*. Retrieved from <https://osf.io/jy7pm/>
4. Aristiwati, I. N., & Hidayatullah, S. K. (2021). Pengaruh herding dan overconfidence terhadap keputusan investasi (Studi Pada Nasabah Emas Kantor Pegadaian Ungaran) [The influence of herding and overconfidence on investment decisions (Study on Gold Customers of Ungaran Pegadaian Office)]. *Among Makarti*, 14(1), 15–30. doi: <https://doi.org/10.52353/ama.v14i1.202>
5. Arshinta, F., Djasuli, M., & Rimawati, Y. (2017). *Faktor-Faktor yang Mempengaruhi Persepsi Etika Mahasiswa Akuntansi dengan Love of Money sebagai Variabel Intervening* [Factors Affecting Ethical Perceptions of Accounting Students with Love of Money as an Intervening Variable]. *Jurnal Keuangan Dan Perbankan Dan Perbankan*, 13(2), 128–140.
6. Astuti, D. (2018). *Determinan Keputusan Investasi Saham Melalui Literasi Keuangan dan Persepsi Resiko*. Retrieved from <https://repositori.usu.ac.id/handle/123456789/10007>
7. Ayudiasuti, L. (2021). Analisis Pengaruh Keputusan Investasi Mahasiswa [Analysis of the Influence of Student Investment Decisions]. *Jurnal Ilmu Manajemen*, 9(3), 1138–1149. doi: 10.26740/jim.v9n3.p1138-1149
8. Baihaqqy, M. Rizaldy Insan. (2021). *Analisis literasi keuangan dan perilaku keuangan setiap kelompok generasi dalam menentukan keputusan investasi di pasar modal* [Analysis of financial literacy and financial behaviour of each generational group in determining investment decisions in the capital market] (Doctoral thesis). Retrieved from [http://repository.upi.edu/59932/7/D\\_IMN\\_1708151\\_Tittle.pdf](http://repository.upi.edu/59932/7/D_IMN_1708151_Tittle.pdf)
9. Daniel, K., & Titman, S. (1999). Market Efficiency in an Irrational World. *Financial Analysts Journal*, 55(6), 28–40. doi: 10.2469/faj.v55.n6.2312
10. Fachrudin, K. (2018). *Pengaruh Demografi terhadap Faktor Internal Investor Individu dan Keputusan Investasi Saham Serta Investment Performance (Studi Kasus Investor di Kota Medan)* (Doctoral thesis). Retrieved from <https://repositori.usu.ac.id/handle/123456789/6409>
11. Fahriani, E. (2019). *Pengaruh faktor demografi, financial attitude ter hadap financial keputusan generasi milenial di literacy investasi sidoarjo* [The influence of demographic factors, financial

- attitude on the financial decisions of the millennial generation in Sidoarjo investment literacy]. Retrieved from <http://eprints.perbanas.ac.id/5620/1/ARTIKEL%20ILMIAH.pdf>
12. Ghozali, I. (2014). *Model Persamaan Struktural. Konsep Dan Aplikasi Dengan Program Amos 24* [Structural Equation Modelling. Concepts and Applications with the Amos 24 Programme]. Yogyakarta: n. d.
  13. Jogyanto, H. (2011). *Konsep dan aplikasi structural equation modeling berbasis varian dalam penelitian bisnis* [Concepts and applications of variant-based structural equation modelling in business research]. Yogyakarta: UPP STIM YKPN. Yogyakarta.
  14. Latifah, H. C., & Suryani, A. W. (2020). Pengaruh kebijakan dividen, kebijakan hutang, profitabilitas, dan likuiditas terhadap harga saham [The effect of dividend policy, debt policy, profitability, and liquidity on stock prices]. *Jurnal Akuntansi Aktual*, 7(1), 31–44. doi: [10.17977/um004v7i12020p31](https://doi.org/10.17977/um004v7i12020p31)
  15. Leiwakabessy, A., Patty, M., & Titioka, B. M. (2021). [Faktor psikologis investor millennial dalam pengambilan keputusan investasi saham \(Studi Empiris Pada Investor Millennial di Kota Ambon\)](#) [Psychological factors of millennial investors in making stock investment decisions (Empirical Study on Millennial Investors in Ambon City)]. *Jurnal Akuntansi Dan Pajak*, 22(2), 1–11.
  16. 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 [The Effect of Status Quo, Herding Behaviour, Representativeness Bias, Mental Accounting, and Regret Aversion Bias on Investment Decisions of Millennial Investors in Surabaya City]. *Jurnal Ilmu Manajemen*, 9(2), 779. doi: [10.26740/jim.v9n2.p779-793](https://doi.org/10.26740/jim.v9n2.p779-793)
  17. Martono, N. (2012). *Metode Penelitian Kuantitatif. Analisis Isi Dan Analisis Data Sekunder* [Quantitative Research Methods. Content Analysis and Secondary Data Analysis]. Jakarta: Rajawali Press.
  18. Pompian, M. M. (2012). *Behavioral finance and investor types: Managing behavior to make better investment decisions*. Hoboken: Wiley.
  19. Pradikasari, E., & Isbanah, Y. (2018). [Pengaruh Financial Literacy, Illusion of Control, Overconfidence, Risk Tolerance, dan Risk Perception Terhadap Keputusan Investasi Pada Mahasiswa di Kota Surabaya](#) [The Effect of Financial Literacy, Illusion of Control, Overconfidence, Risk Tolerance, and Risk Perception on Investment Decisions of Students in Surabaya City]. *Jurnal Ilmu Manajemen*, 6(4), 424–434.
  20. Qasim, M., Hussain, R. Y., Mehboob, I., & Arshad, M. (2019). Impact of herding behavior and overconfidence bias on investors' decision-making in Pakistan. *Accounting*, 81–90. doi: [10.5267/j.ac.2018.7.001](https://doi.org/10.5267/j.ac.2018.7.001)
  21. Sakinah, N., & Firmansyah, F. (2021). Kualitas Produk dan Harga Terhadap Keputusan Pembelian dengan Purchase Intention Sebagai Variabel Intervening [Product Quality and Price on Purchasing Decisions with Purchase Intention as an Intervening Variable]. *Jurnal Ilmiah Manajemen Dan Bisnis*, 22(2), 192–202. doi: [10.30596/jimb.v22i2.7100](https://doi.org/10.30596/jimb.v22i2.7100)
  22. Salerindra, B. (2020). [Determinan Keputusan Investasi Mahasiswa Pada Galeri Investasi Perguruan Tinggi Di Surabaya Dan Malang](#) [Determinants of student investment decisions in university investment galleries in Surabaya and Malang.]. *Jurnal Ilmu Manajemen*, 8(1), 157–173.
  23. Sugiyono. (2012). *Metode Penelitian Kuantitatif, Kualitatif Dan R&D* [Quantitative, Qualitative and R&D Research Methods]. Bandung: Alfabeta.
  24. Vira, J. (2022). *Pengaruh risk tolerance, overconfidence dan motivasi terhadap keputusan investasi dalam perspektif ekonomi islam (Studi pada Mahasiswa yang tergabung dalam Galeri Investasi Syariah UIN Raden Intan Lampung)* [The influence of risk tolerance, overconfidence and motivation on investment decisions in the perspective of Islamic economics (Study on Students

who are members of the Sharia Investment Gallery UIN Raden Intan Lampung)]. Retrieved from <http://repository.radenintan.ac.id/17291/>

25. Zakirullah, Z., & Rahmawati, S. (2020). Faktor-faktor yang berkontribusi terhadap perilaku herding pada investor saham ritel di bursa efek indonesia [Factors contributing to herding behaviour among retail stock investors on the Indonesian stock exchange]. *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen*, 5(1), 1-23.