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DETERMINANTS OF MILLENNIAL INVESTMENT DECISION-MAKING IN THE SHARIA CAPITAL MARKET: A COMPREHENSIVE REVIEW

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ABSTRACT

Introduction: The study aims to examine the impact of financial literacy, overconfidence, regret aversion bias, herding, and risk tolerance on the investment decisions of the Indonesian millennial generation.
Methods: The study used a quantitative approach with a sample of 120 respondents from the millennial generation who invested in the Islamic capital market. A statistical test was done using SPSS IBM 26.
Results: Financial literacy and overconfidence significantly influenced investment decisions. On the other hand, regret aversion bias, herding, and risk tolerance had no significant impact on investment decisions.
Conclusion and suggestion: The study concluded that financial literacy and overconfidence are the major factors that affect the investment decisions of the Indonesian millennial generation. The government (regulator) and related institutions should take a more proactive approach in providing outreach and education about the importance of financial literacy and overconfidence. The millennial generation is interested in investing in the Sharia capital market.

INTRODUCTION

Indonesia has the largest Muslim population in the world, making it an excellent location for Islamic investment through the Sharia stock market. The Sharia-based business sectors offer a variety of investment products that comply with Sharia principles, overseen by the National Committee of Indonesia Council of Ulama (Musari, 2021; Wardhana et al., 2023). The Islamic capital market is similar to conventional markets in many ways but has unique features such as products and transaction mechanisms that align with Islamic principles (Marsi & Wardani, 2020). Investment in the sharia capital market continues to increase, many people are starting to be interested in investing along with a lot of information received by the public. Individuals born between the early 1980s and early 2000s are referred to as the millennial generation, contributing to the increase in the number of investors. Based on data released by the Indonesian Central Securities Depository (*Kustodian Sentral Efek Indonesia*/KSEI) as of December 29, 2020, as many as 70% of investors were under the age of 40 years, suggesting that the millennial generation dominates (Tubastuvi et al., 2022). The second largest population in Indonesia is millennials at 69.38 million individuals (Central Bureau of Statistics, 2021).

As financial asset policies work, an investment decision involves allocating and managing financial assets to generate profits in the future (Pertiwi et al., 2020 as cited in Febriansyah et al., 2023). From a micro perspective, when making decisions, changes in the psychology and characteristics of investors. The behavioral changes might also occur due to overconfidence, financial literacy, regret aversion bias, and risk tolerance on investment decisions (Zhuo et al., 2021; Adielyani & Mawardi, 2020; Jusuf et al., 2023; Listiani & Soleha, 2023; Made et al., 2023; Putri & Hikmah, 2020; Rabbani & Saputra, 2022; Rahman & Dewi, 2023; Setiyono et al., 2021; Yuliani & Nurwulandari, 2023). This current study added herding, the tendency to follow others' decisions rather than on their own, as one of the factors that influence investment decision-making.

LITERATURE REVIEW

Investment Decisions

Investment decisions are decisions taken by companies when allocating funds in the form of certain assets as they expect profits in the future (Amaliyah & Herwiyanti, 2020). Investment is an activity that aims to postpone current consumption and save some belongings for future spending (Mutiara & Agustian, 2020). Investment decision-making includes the process of planning and making overall decisions regarding the expenditure of funds with a refund period of more than one year or longer (Oktavia & Nugraha, 2020).

Behavioral Finance

Behavioral Finance is a theory regarding making decisions under uncertainty. In general, behavioral finance relates to "irrational expectations or non-standard preferences which influence asset prices" (Paule-Vianez et al., 2020). One of the aspects that can influence decisions and the results is the psychological aspect. The psychology of a person can influence against irrational actions (Pradikasari & Isbanah, 2018; Salerindra, 2020). Based on previous research, several factors influence investment decisions, such as financial literacy, overconfidence, regret aversion bias, herding, and risk tolerance (Addinpujoartanto & Darmawan, 2020; Budiarto & Susanti, 2017; Nareswari et al., 2021).

Financial Literacy

Financial literacy is knowledge, skills, awareness, and behavior that congregate in financial decision-making to achieve higher profits (Hidayat, 2022). The Organization for Economic Cooperation and Development (OECD) defines financial literacy as having knowledge and understanding of financial concepts and risks, and the ability to apply them to make informed decisions in all aspects of financial life with confidence. The financial literacy practices include managing money effectively, evaluating various financial products, and planning for long-term financial goals (Ansari et al., 2023), and making informed and powerful decisions regarding the utilization and control of money (Lin & Bates, 2022).

Overconfidence

Overconfidence is either misjudging the probability that one's favored result will happen or misjudging the legitimacy of one's judgment (Buratto & Lotti, 2023). Holding a mixed-up assessment of one's capacities and abilities is the customary comprehension of overconfidence (Ansari et al., 2023). People typically have a high level of self-confidence in their reasoning, access to information, judgment, level of knowledge, and cognitive abilities. Usually, having too much faith in one's abilities leads to having too much confidence (Akinkoye & Bankole, 2020).

Regret Aversion Bias

Regret aversion bias results in investors not wanting to give up investment instruments they have owned for a long time while the instruments should have been sold for profit (Budiarto & Susanti, 2017 in Mahadevi & Asandimitra, 2021).

Herding

Herding is the behavior of investors who tend to follow other investors in investing (Afriani & Halmawati, 2019; Mahmood et al., 2020; Pranyoto et al., 2020; Wira et al., 2022). Given the herding of deficient data hypothesis because of the lopsidedness of data on the lookout and the significant expense of acquiring data, financial backers might disregard private data and emulate different financial backers' behaviors (Hsieh et al., 2020).

Risk Tolerance

Risk tolerance is characterized as the general degree of vulnerability that an individual will acknowledge while making financial decisions in all parts of financial and public activities. Investors are characterized into three sorts: risk seekers, risk-neutral, and risk-averse.

Hypothesis Development

The Influence of Financial Literacy on Investment Decisions

Financial literacy has two fundamental features: the information and mental capability to figure out monetary data and the capacity to make moves (Noviarini et al., 2023). Previous research positively and significantly influenced investment decisions (Fridana & Asandimitra, 2020; Gustika & Yaspita 2021; Hidayat, 2022; Hikmah et al., 2020; Putri & Hamidi, 2019). Meanwhile, other research indicates that financial literacy has a negligible impact on decision-making when it comes to investments (Budiarto & Susanti, 2017; Budiman et al., 2021; Khairunizam & Isbanah, 2019). However, despite the results obtained, there are still discrepancies in the findings of various studies regarding the impact of financial literacy on investment decision-making. Based on the previous studies, this study gathers a hypothesis that is:

H1: Financial literacy has a positive significant effect on investment decisions.

The Influence of Overconfidence on Investment Decisions

Three consequences of overconfidence include (Rona & Sinarwati, 2021):

1) Investors overestimate their ability to value companies as potential investments.
2) Tend to overtrade.
3) Triggering action against possible risks.

Previous research mentions overconfidence positively and significantly affects investment decision-making (Addinpujoartanto & Darmawan, 2020; Amelinda & Ongkowidjaja, 2022; Aristiwati & Hidayatullah, 2021; Budiman et al., 2021; Metawa et al., 2019; Nareswari et al., 2021; Purwidianti et al., 2023). Meanwhile, other research states the opposite (Salerindra, 2020; Wulandari & Iramani, 2014). It is assumed that various studies have discrepancies about the effect of the overconfidence variable. Having the previous research findings, this current study proposed a hypothesis that is:

H2: Overconfidence has a positive significant effect on investment decision-making

The Influence of Regret Aversion Bias on Investment Decisions

Regret aversion bias is a tendency for investors to avoid the pain of past regrets due to decision-making failures that lead to low-performance results (Akinkoye & Bankole, 2020 in Mahadevi & Asandimitra, 2021). Previous research concludes that this aspect deals with investment decision-making Addinpujoartanto & Darmawan, (2020); Hidayat, (2022); Mahadevi & Asandimitra, (2021); Pradhana, (2018), but other research does not (Loppies et al., 2022; Nursalimah & Utami, 2022; Wardani & Lutfi, 2016). With the differences among the research, this current study formulates a hypothesis about regret aversion bias variable that is:

H3: Overconfidence has a positive significant effect on investment decision-making

The Influence of Herding on Investment Decisions

Herding in the monetary market is frequently used to portray the exchange connection created by the association between financial backers (Wang et al., 2021). Various studies have confirmed that this factor influences investment decisions (Addinpujoartanto & Darmawan, 2020; Aristiwati & Hidayatullah, 2021; Hidayat, 2022; Khairunizam & Isbanah, 2019; Nareswari et al., 2021; Wira et al., 2022). Other research results contrast with the previous research results (Pranyoto et al., 2020; Sulhia et al., 2022). This current study, therefore, comes with a hypothesis that is:
H4: Herding has a positive significant effect on investment decisions.

The Influence of Risk Tolerance on Investment Decisions

In general, investors are categorized into risk seekers, risk-neutral, and risk-averse. Risk seekers are investors who prefer higher risk because they know that risk and return are positively related. Risk-neutral investors are quite flexible and cautious in making investment decisions. Risk-averse investors, on the other hand, prefer to avoid existing risks (Pradikasari & Isbanah, 2018). Types of risk tolerance influence investment decision-making Budiarto & Susanti, (2017); Fridana & Asandimitra, (2020); Hikmah et al., (2020); Lathifatunnisa & Wahyuni, (2021) although in some other studies, they do not (Ady & Hidayat, 2019; Hidayat, 2022; Yulianis & Sulistyowati, 2021). Using the previous results to hypothesize, this current study formulated a hypothesis that is:
H5: Risk tolerance has a positive significant effect on investment decisions.

RESEARCH METHODS

Investment decision-making is a complex process influenced by various factors. In this study, factors that are considered influential such as risk tolerance, overconfidence, regret aversion bias, financial literacy, and herding, following previous research (Addinpujoartanto & Darmawan, 2020; Adielyani & Mawardi, 2020; Budiarto & Susanti, 2017). The research framework is presented in Figure 1.

This quantitative study utilized a questionnaire for data collection. The research population was the millennial generation (ages 23-43) who had invested in the Sharia capital market at least once and lived in Indonesia. In 2022, according to the IDX, 26% of active investors or around 30,975 people actively invested in the Islamic capital market (Hema, 2023). The research sample was calculated using the Roscoe formula in multivariate studies such as multiple linear regression, with the sample size at least ten times larger than the number of variables being studied (10 × 6) (Sugiyono, 2016). Following this formula, the minimum sample size was 60 respondents. Through random purposive sampling, the sample size was equal to 120 samples. Likert point 5 was the measurement method used in this study with five different scales (Pranatawijaya et al., 2019): Strongly Agree (SS) for scale 5, Agree (A) for scale 4, Neutral (N) for scale 3, Disagree (D) for scale 2, and Strongly Disagree (SD) for scale 1.

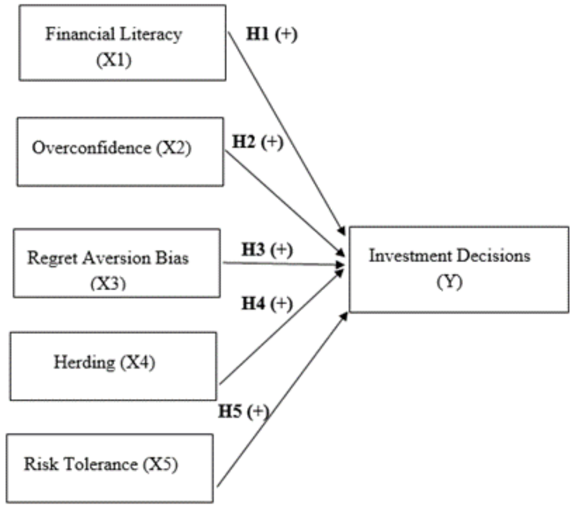

Figure 1. Conceptual Framework

The questionnaire addressed some variables seen in Table 1. All quantitative data from the questionnaire were analyzed using SPSS IBM 26.

Table 1. Operational definitions of variables

Variable	**Definition**	**Indicator**	**Scale**
Financial literacy	Financial literacy is knowledge, skills, awareness, and behavior that collaborate in determining financial decisions to obtain higher profits (Hidayat, 2022).	Three indicators of financial literacy: 1. Financial knowledge 2. Financial behavior 3. Financial attitudes (Kojo Oseifuah, 2010 in Suryani & Ramadhan, 2017)	Likert
Overconfidence	Overconfidence or self-confidence is how dominant one's feelings are or how notions are preconceived in understanding one's knowledge and limits (Rakhmatulloh & Asandimitra, 2019).	Overconfidence can be measured from 1. Accuracy of investment selection 2. Believe in his/her ability 3. Believe in his/her knowledge 4. Election belief investment (Budiarto & Susanti, 2017)	Likert
Regret aversion bias	Regret aversion bias is the tendency for investors to avoid the pain of past regrets due to mistakes in decision-making that lead to poor results (Akinkoye & Bankole,	Regret aversion bias can be measured using four indicators: 1. Fear and uncertainty towards the same investment loss 2. Avoiding the same disadvantages	Likert

	2020 in Mahadevi & Asandimitra, 2021)	3. Giving up profits quickly 4. Withholding losses for too long (Baker et al., 2019)	
Herding	Herding is the behavior of investors who tend to follow other investors for investments (Wira et al., 2022).	Herding consists of two categories, namely: 1. Intentional herding 2. Unintentional herding (Pranyoto et al., 2020)	Likert
Risk tolerance	Risk tolerance is an acceptable threshold level when an investor takes investment risks (Budiarto & Susanti, 2017).	Indicators used to measure risk tolerance include: 1. The use of income for investments of a speculative nature 2. Thoughtless purchase of instruments 3. Investments in activities that provide large returns (Kurniawati S, 2020)	Likert
Investment decision	A choice or strategy to put resources (into at least one resource) to produce future profits is an investment decision (Pranyoto et al., 2020).	The bases of the investment decision include: 1. Time 2. Risk 3. Return	Likert

Data processed by the authors in 2023

To solve problems in the current research, data were collected with valid and reliable questionnaires. The data were then analyzed using classical assumption tests, including normality tests, multicollinearity tests, and heteroscedasticity tests. Multiple linear analysis tests, the F-test, and the coefficient of determination test should be carried out to further analyze the data. The last step of testing involved inserting all hypotheses into the tests.

RESULT AND ANALYSIS

In total, 163 questionnaires were distributed, but only 120 questionnaires were gathered for final analysis. Table 2 provides descriptions of respondents' characteristics.

Table 2. Respondents' Characteristics

No	Questionnaire Items		Frequency	Percent
1.	Gender	Male	41	34.2
		Female	79	65.8
		Total	120	100
2.	Age	23-29 Years	110	91.7
		30-36 Years	6	5.0
		37-43 Years	4	3.3
		Total	120	100

3.	Domicile	South Sumatra	3	2.5
		Riau Islands	1	0.8
		Riau	1	0.8
		The Capital City of Jakarta	2	1.7
		Banten	1	0.8
		West Java	7	5.8
		Central Java	98	81.7
		East Java	2	1.7
		Special Region of Yogyakarta	1	0.8
		Central Kalimantan	2	1.7
		West Kalimantan	1	0.8
		South Sulawesi	1	0.8
		Total	120	100
4.	Job	Entrepreneur	5	4.2
		Civil Servants/Police/TNI	2	1.7
		Private sector employee	12	10.0
		Housewife	3	2.5
		College Student	94	78.3
		Others	4	3.3
		Total	120	100
5.	Monthly Income	< IDR 5,000,000	106	88.3
		IDR 6,000,000 – IDR 10,000,000	11	9.2
		IDR 11,000,000 – IDR 15,000,000	1	0.8
		> IDR 15,000,000	2	1.7
		Total	120	100
6.	Securities Used	Ajaib Securities	36	30
		BCA Securities	9	7.5
		BNI Securities	11	9.2
		CIMB Securities	2	1.7
		Danareksa Securities	2	1.7
		HP Financials	1	0.8
		Indopremier Securities	7	5.8
		Jasa Utama Capital	1	0.8
		Mandiri Securities	2	1.7
		Mirae Asset	1	0.8
		Phintraco Securities	14	11.7
		Etc	34	28.3
		Total	120	100

Data processed by the authors in 2023

Validity Test

The value of the financial literacy variable's validity ranges from 0.550 – 0.738. The overconfidence variable has a validity value ranging from 0.728 to 0.829. The validity value of regret aversion bias is between 0.743 – 0.850. The validity value of the herding variable ranges from 0.740 – 0.839. This study also discovered the validity value range of the risk tolerance variable from 0.529 to 0.700. The investment decision variable has a validity value ranging from 0.617 to 0.789. The statements of herding, overconfidence, financial literacy, risk tolerance, regret aversion bias, and investment decision variable are greater than the r table value of 0.1793 (a = 0.00), making the variables' statements valid.

Reliability Test

The financial literacy variable has a reliability value of 0.719. Overconfidence was 0.809, and the reliability value of regret aversion bias was 0.786. Herding has a reliability value of 0.709, and risk tolerance has a value of 0.658, followed by an investment decision of 0.777. All variables, in conclusion, have a Cronbach alpha score of more than 0.60, indicating all items of the questionnaires are reliable.

Normality Test

The results of the normality test are based on the Asymp values in Table 3, with Sig. (2-tailed) $\geq \alpha$ or a coefficient of $0.200 \geq 0.05$. This value suggests that the residual value has a normal distribution and carries on with subsequent tests.

Multicollinearity Test

Compared to all variables, the financial literacy variable has the highest VIF of 0.788 and the lowest TOL of 1.269. The overconfidence variable has a lower VIF of 0.679 but a higher TOL of 1.473 than financial literacy. Regret aversion bias has a VIF of 0.638 and a TOL of 1.566. In comparison, herding has a lower VIF of 0.624 yet a higher TOL of 1.603. The last variable is risk tolerance having a VIF of 0.738 and a TOL of 1.356. The risk tolerance value for the multicollinearity-free regression model is less than 0.10 with the VIF value less than 10. These results conclude that risk tolerance, overconfidence, regret aversion bias, financial literacy, and herding are all free of multicollinearity or exhibit no symptoms of multicollinearity.

Heteroscedasticity tests

The heteroscedasticity tests showed significant values including 0.177 in financial literacy, 0.657 in overconfidence, 0.115 in regret aversion bias, 0.391 in herding, and 0.655 in risk tolerance. The regression model does not exhibit heteroscedasticity because all variables have a significant value of greater than 0.05.

Multiple Linear Regression Analysis Test

Table 3. Multiple Linear Regression Analysis Test Results

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.451	0.299		4.858	0.000
	Financial literacy	0.564	0.070	0.594	8.078	0.000
	Overconfidence	0.164	0.050	0.257	3.252	0.002
	Regret aversion bias	0.012	0.047	0.020	0.245	0.807
	Herding	-0.031	0.054	-0.048	-0.583	0.561
	Risk tolerance	-0.043	0.064	-0.051	-0.666	0.507

Data processed in IBM SPSS statistic 26

After the regression analysis, the regression condition can be established with a formula:

$$Y = 1.442 + 0.564FL + 0.164OC + 0.012RAB - 0.031H - 0.043RT$$

In this study, financial literacy and overconfidence had a positive impact on investment decisions. A one-unit increase in financial literacy raised investment decision-making by 0.564 units, while the same increase in overconfidence influenced it by 0.164 units.

Coefficient of Determination (R2)

This study found that herding, overconfidence, financial literacy, risk tolerance, and regret aversion bias have a 51.5% influence on investment decisions, while the remaining 48.5% is influenced by other unexamined factors.

F (Goodness of Fit) Test Results

The regression model particularly generated the F-value of 24.179, with a significance value of 0.000, which is less than the accepted threshold (0.05). Obtaining the result, this study calculated the degree of freedom, α, which is (K-1) (n-k) or 0.05 (5-1) (120-5). The F table at a 95% confidence level was compared to the F value (24.179). As the F value was greater than the F table (24.179 > 2.29), the model was a good fit with all variables significantly affecting the investment decision.

T-Test (Hypothesis Testing)

According to Sujarweni (2019), the t-test is a statistical test used to analyze the significance of the difference between means of two groups of data. The t table was 1.65821 for all variables if it was calculated using the formula df = (N-K-1) = (120-5-1) = 114 with 5% of the significance level. As discovered from the t-test, financial literacy has a significant impact on investment decisions, with a t-calculated value of 8.078. In addition, overconfidence had a significant effect on investment decisions, with a t-calculated value of 3.252. Meanwhile, regret aversion bias did not have a significant effect, with a t-calculate value of 0.245. Regarding Herding, the t-calculate value was -0.583. The study found that herding has no significant effect on investment decisions. Finally, the t-calculate value for Risk Tolerance was -0.666. It was concluded that Risk Tolerance has no significant effect on investment decisions.

The Effect of Financial Literacy on Investment Decisions

Financial literacy plays a significant role in investment decision-making in the Sharia capital market. Some research has claimed similar findings to the current ones (Fridana & Asandimitra, 2020; Gustika & Yaspita, 2021; Hidayat, 2022; Hikmah et al., 2020; Putri &; Hamidi, 2019). It can be inferred that millennial investors who invest in the sharia capital market believe that higher financial literacy leads to better decision-making on their investment choice achieving high returns. Research shows that making rational decisions based on comprehensive data and information is crucial to achieving successful investments (Soedarso, 2017). Additionally, having good financial literacy can help individuals focus on their financial planning and anticipate any potential financial problems from their investments (Sulistyowati et al., 2022; Upadana & Herawati, 2020; Yolanda & Tasman, 2020).

The Effect of Overconfidence on Investment Decisions

According to the behavioral finance theory, decision-making occurs with psychological changes and investor characteristics (Zhuo et al., 2021). The current results support this theory and previous research by stating that overconfidence influenced investment decisions among Sharia investors (Addinpujoartanto & Darmawan, 2020; Amelinda & Ongkowidjaja, 2022; Aristiwati & Hidayatullah, 2021; Budiman et al., 2021; Metawa et al., 2019; Nareswari et al., 2021); Purwidianti et al., 2023). Millennials who exhibit high levels of overconfidence tend to be more brave when it comes to making investment decisions in the Sharia capital market. They tend to be more self-assured about their abilities and often overlook the potential risks associated with investing in the Sharia capital market. Taking risk into consideration might protect individuals from irrational action rationally when they face risk and uncertainty (Wibowo & Purwidianti, 2022).

The Effect of Regret Aversion Bias on Investment Decisions

The regret aversion bias variable was demonstrated as not affecting investment decisions. These findings infer that the investors continued investing in the Sharia capital market although they had some Sharia investment issues in the past. This discovery contradicts the principles of behavioral finance but aligns with rational theory, wherein decision-making is based on logical reasoning and comprehensive data (Soedarso, 2017).

Regret aversion bias had a positive but insignificant effect on the investment decisions of Indonesian millennial sharia investors. The investors in this current study were more likely to focus on the current investment analysis rather than their failure in the past was found in previous research (Loppies et al., 2022; Nursalimah & Utami, 2022; Sukamulja et al., 2019; Wardani & Lutfi, 2016).

The Effect of Herding Influence on Investment Decisions

The study opposed the previous research (Pranyoto et al., 2020; Sulhia et al., 2022) as herding was not the factor affecting the investment decisions of Indonesian millennial investors, who extensively researched and analyzed stock information. They were likely to be rational because they decided their investment independently. Instead of affirming the behavioral finance theory, this current finding is in line with the rational theory believing in rational thinking and comprehensive data and information for decision-making (Soedarso, 2017).

The Effect of Risk Tolerance on Investment Decisions

The millennial investors in this study who invested in the Sharia capital market possess risk tolerance that did not have a significant impact on their investment decisions, according to previous research (Ady & Hidayat, 2019; Hidayat, 2022; Yulianis & Sulistyowati, 2021). They did not overestimate risks when making investment decisions in the Sharia capital market. They invested because they had the grit to face any possible threats.

CONCLUSION

From the data analyzed, this study concluded that financial literacy and overconfidence had a significant influence on investment decisions. On the other hand, regret aversion bias, herding, and risk tolerance had insignificant effects on investment decision-making.

Because there are limitations to this current study, it is necessary to conduct further analysis of the variables previously examined. Incorporating other determinants such as self-control bias, greed bias, and other factors may challenge whether they impact investment or not. Besides, further research should address a bigger sample size for wider generalizability.

It is recommended that the government take the initiative to follow up on the research findings and inform the public about trading in the Sharia capital market. Additionally, the Indonesia Stock Exchange should consider increasing the number of Sharia experts to create more opportunities for those interested and move towards a significant Sharia investment movement in the community.

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

Adielyani, D. & Mawardi, W. (2020). The Influence of Overconfidence, Herding Behavior, and Risk Tolerance on Stock Investment Decisions: The Empirical Study of Millennial Investors in Semarang City. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, *10*(1), 89–101. https://doi.org/10.30588/jmp.v10i1.691

Ady, S. U. & Hidayat, A. (2019). Do Young Surabaya's Investors Make Rational Investment Decisions? *International Journal of Scientific and Technology Research*, *8*(7), 319–322. https://www.ijstr.org/final-print/july2019/Do-Young-Surabayas-Investors-Make-Rational-Investment-Decisions.pdf

Afriani, D. & Halmawati. (2019). Pengaruh Cognitive Dissonance Bias, Overconfidence Bias dan Herding Bias Terhadap Pengambilan Keputusan Investasi (Studi Empiris Pada Mahasiswa Fakultas Ekonomi Universitas Negeri Padang Yang Melakukan Investasi di Bursa Efek Indonesia). *Jurnal Eksplorasi Akuntansi*, *1*(4), 1650–1665. http://jea.ppj.unp.ac.id/index.php/jea/issue/view/14

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

Amaliyah, F. & Herwiyanti, E. (2020). Pengaruh Keputusan Investasi, Ukuran Perusahaan, Keputusan Pendanaan dan Kebijakan Deviden Terhadap Nilai Perusahaan Sektor Pertambangan. *Jurnal Penelitan Ekonomi Dan Bisnis*, *5*(1), 39–51. https://doi.org/10.33633/jpeb.v5i1.2783

Amelinda, R. & Ongkowidjaja, Y. P. (2022). Pengaruh Literasi Keuangan, Overconfidence, dan Pendidikan Investor Terhadap Keputusan Investasi Saham di Bursa Efek Indonesia (BEI), Jakarta. *Syntax Literate: Jurnal Ilmiah Indonesia*, *7*(7), 9765–9777. https://doi.org/10.36418/syntax-literate.v7i7.8782

Ansari, Y., Albarrak, M. S., Sherfudeen, N. & Aman, A. (2023). Examining the relationship between financial literacy and demographic factors and the overconfidence of Saudi investors. *Finance Research Letters*, *52*, 103582. https://doi.org/10.1016/j.frl.2022.103582

Aristiwati, I. N. & Hidayatullah, S. K. (2021). Pengaruh Herding dan Overconfidence Terhadap Keputusan Investasi (Studi Pada Nasabah Emas Kantor Pegadaian Ungaran). *Jurnal Among Makarti*, *14*(1), 15–30. https://doi.org/10.52353/ama.v14i1.202

Baker, H. K., Filbeck, G. & Nofsinger, J. R. (2019). *Behavioral Finance : What Everyone Needs to Know®*. Oxford University Press. https://doi.org/10.1093/wentk/9780190868741.001.0001

Budiarto, A. & Susanti. (2017). Pengaruh Financial Literacy, Overconfidence, Regret Aversion Bias, dan risk Tolerance Terhadap Keputusan Investasi (Studi pada investor PT. Sucorinvest Central Gani Galeri Investasi BEI Universitas Negeri Surabaya). *Jurnal Ilmu Manajemen (JIM)*, *5*(2), 1–9.

Budiman, I., Maulana, Z. & Kamal, S. (2021). Pengaruh Literacy Financial, Experienced Regret, dan Overconfidence Terhadap Pengambilan Keputusan Investasi di Pasar Modal. *Jurnal Manajemen Strategi Dan Aplikasi Bisnis*, *4*(2), 321–330. https://doi.org/10.36407/jmsab.v4i2.282

Buratto, A. & Lotti, L. (2023). The impact of salient labels and choice overload on sustainability judgments : An online experiment investigating consumers ' knowledge and overconfidence. *Food Quality and Preference*, *107*(February), 104846. https://doi.org/10.1016/j.foodqual.2023.104846

Central Bureau of Statistics. (2021). Hasil Sensus Penduduk 2020. In *Bps.Go.Id* (Issue 7). https://papua.bps.go.id/pressrelease/2018/05/07/336/indeks-pembangunan-manusia-provinsi-papua-tahun-2017.html

Febriansyah, W., Purwidianti, W., Astuti, H. J., Utami, R. F. & Purwokerto, U. M. (2023). Pengaruh Pengetahuan, Pengalaman dan Financial Satisfaction Terhadap Keputusan Investasi : Gender Sebagai Variabel Moderasi. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan*, *5*(8), 2023. https://journal.ikopin.ac.id/index.php/fairvalue

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), 396–405. https://doi.org/10.24912/jmieb.v4i2.8729

Gustika, G. S. & Yaspita, H. (2021). Pengaruh Literasi Keuangan Terhadap Keputusan Investasi Mahasiswa STIE Indragiri Rengat. *Jurnal Manajemen Dan Sains*, *6*(April), 261–269. https://doi.org/10.33087/jmas.v6i1.252

Hema, Y. (2023). Bursa Efek Indonesia Targetkan Investor Syariah Tumbuh 10% pada Tahun 2023. *Kontan.Co.Id*. https://investasi.kontan.co.id/news/bursa-efek-indonesia-targetkan-investor-syariah-tumbuh-10-pada-tahun-2023

Hidayat, F. S. (2022). Pengaruh Financial Literacy, Financial Attitude, Regret Aversion Bias, Herding dan Risk Tolerance Terhadap Keputusan Investasi Mahasiswa di Surabaya. *Jurnal Ilmu Manajemen*, *10*(3), 853–864.

Hikmah, Siagian, M. & Siregar, P. (2020). Analisis Tingkat Literasi Keuangan, Experienced Regret, dan Risk Tolerance pada Keputusan Investasi di Batam. *Jesya (Jurnal Ekonomi & Ekonomi Syariah)*, *3*(1), 138–146. https://doi.org/10.36778/jesya.v3i1.142

Hsieh, S. F., Chan, C. Y. & Wang, M. C. (2020). Retail investor attention and herding behavior. *Journal of Empirical Finance*, *59*, 109–132. https://doi.org/10.1016/j.jempfin.2020.09.005

Jusuf, R. D., Monoarfa, M. A. S. & Dungga, M. F. (2023). Pengaruh Literasi Keuangan, Experienced Regret, dan Risk Tolerance Terhadap Keputusan Investasi Masyarakat di Kota Gorontalo. *Jurnal Ilmiah Manajemen Dan Bisnis*, *6*(2), 932–944.

Khairunizam & Isbanah, Y. (2019). Pengaruh Financial Literacy dan Behavioral Finance Factors Terhadap Keputusan Investasi. *Jurnal Ilmu Manajemen*, *7*(2), 516–528. www.ekonomisyariah.org

Kojo Oseifuah, E. (2010). Financial literacy and youth entrepreneurship in South Africa. *African Journal of Economic and Management Studies*, *1*(2), 164–182. https://doi.org/10.1108/20400701011073473

Lathifatunnisa & Wahyuni, A. N. (2021). Pengaruh Faktor Demografi, Risk Tolerance dan Overconfidence Terhadap Pengambilan Keputusan Investasi Mahasiswa di Kota Pekalongan. *Jurnal Bisnis Terapan*, *5*(2), 203–216. https://doi.org/10.24123/jbt.v5i2.4688

Lin, C. A. & Bates, T. C. (2022). Smart People Know How The Economy Works: Cognitive Ability, Economic Knowledge and Financial Literacy. *Intelligence*, *93*(February), 101667. https://doi.org/10.1016/j.intell.2022.101667

Listiani, E. & Soleha, E. (2023). Literasi Keuangan, Risk Tolerance Dan Overconfidence Terhadap Keputusan Investasi Pada Mahasiswa. *Journal of Management and Bussines (JOMB)*, *5*(2), 983–993. https://doi.org/10.31539/jomb.v5i2.6271

Loppies, L. S., Esomar, M. J. F. & Janah, I. N. (2022). Herding Behavior, Overconfidence, Regret Aversion Bias on Investment Decisions. *International Journal of Economics, Social Science, Entrepreneurship and Technology (IJESET)*, *1*(5), 345–352. https://doi.org/10.55983/ijeset.v1i5.357

Made, N., Utami, M. A. & Wedasuari, P. R. (2023). The Effect of Financial Literacy and Risk Tolerance on Investment Decisions. *Jurnal Penelitian Ekonomi Dan Akuntansi*, *8*(1), 59–66. http://jurnalekonomi.unisla.ac.id/index.php/jpensi

Mahadevi, S. A. & Asandimitra, N. (2021). The Influence of Status Quo, Herding Behavior, Representativeness Bias, Mental Accounting, and Regret Aversion Bias on Millennial Investors Investment Decisions in Surabaya City. *Journal of Management Sciences*, *9*(2), 779–793. https://pdfs.semanticscholar.org/97a3/ed1b6515b94a613f2097d376f33c76ff627d.pdf

Mahmood, T., Ayyub, R. M., Imran, M., Naeem, S. & Abbas, W. (2020). The Behavioral Analysis and Financial Performance of Individual Investors at Pakistan Stock Exchange. *International Journal of Economics and Financial Issues*, *10*(5), 158–164. https://doi.org/10.32479/ijefi.10112

Marsi, G. G. & Wardani, D. T. K. (2020). The Influence of Sharia Capital Market, Sharia Bonds (Sukuk), and BI Rate on Gross Domestic Products (GDP) in Indonesia. *Journal of Economics Research and Social Sciences*, *4*(2), 149–162. https://doi.org/10.18196/jerss.v4i2.10156

Metawa, N., Hassan, M. K., Metawa, S. & Safa, M. F. (2019). Impact of behavioral factors on investors' financial decisions: case of the Egyptian stock market. *International Journal of Islamic and Middle Eastern Finance and Management*, *12*(1), 30–55. https://doi.org/10.1108/IMEFM-12-2017-0333

Musari, K. (2021). Green Sukuk, Islamic Green Financing: A Lesson Learned From Indonesia. In *Handbook of Research on Climate Change and the Sustainable Financial Sector.* (pp. 1–16). IGI GLOBAL.

Mutiara, I. & Agustian, E. (2020). Pengaruh Financial Literacy dan Financial Behavior Terhadap Keputusan Investasi pada Ibu-Ibu PKK Kota Jambi. *J-MAS (Jurnal Manajemen Dan Sains)*, *5*(2), 263. https://doi.org/10.33087/jmas.v5i2.193

Nareswari, N., Balqista, A. S. & Negoro, N. P. (2021). The Impact of Behavioral Aspects on Investment Decision Making. *Jurnal Manajemen Dan Keuangan*, *10*(1), 15–27. https://ejurnalunsam.id/index.php/jmk/article/view/3125/2456 https://doi.org/10.33059/jmk.v10i1.3125

Noviarini, J., Coleman, A., Roberts, H. & Whiting, R. H. (2023). Financial Literacy and Retirees' Resource Allocation Decisions in New Zealand. *Pacific-Basin Finance Journal*, *79*(February), 101985. https://doi.org/10.2139/ssrn.4115332

Nursalimah, E. & Utami, I. (2022). Pengaruh Regret Aversion Bias dan Overconfidence Terhadap Pengambilan Keputusan Investasi Cryptocurrency Pada Investor Generasi Milenial. *Robust: Research of Business and Economics Studies*, *3*(1), 63–77. https://doi.org/10.31332/robust.v2i1.3953

Oktavia, D. & Nugraha, N. M. (2020). Pengaruh Keputusan Investasi, Keputusan Pendanaan, dan Kebijakan Dividen Terhadap Nilai Perusahaan Pada Sektor Aneka Industri Yang Terdaftar di Bursa Efek Indonesia Periode 2014-2018. *Jurnal Computech & Bisnis*, *14*(1), 1–9. https://jurnal.stmik-mi.ac.id/index.php/jcb/article/download/215/245

Paule-Vianez, J., Gómez-Martínez, R. & Prado-Román, C. (2020). A Bibliometric Analysis of Behavioural Finance with Mapping Analysis Tools. *European Research on Management and Business Economics*, *26*(2), 71–77. https://doi.org/10.1016/j.iedeen.2020.01.001

Pertiwi, T. K., Wardani, N. I. K. & Septentia, I. (2020). Knowledge, Experience, Financial Satisfaction, and Investment Decisions: Gender As a Moderating Variable. *Jurnal Manajemen Dan Kewirausahaan*, *22*(1), 57–64. https://doi.org/10.9744/jmk.22.1.57-64

Pradhana, R. W. (2018). Pengaruh Financial Literacy, Cognitive Bias, dan Emotional Bias Terhadap Keputusan Investasi (Studi Pada Investor Galeri Investasi Universitas Negeri Surabaya). *Jurnal Ilmu Manajemen*, *6*(3), 108–117. https://jurnalmahasiswa.unesa.ac.id/index.php/jim/article/view/23849

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. *Jurnal Ilmu Manajemen (JIM)*, *6*(4), 424–434.

Pranatawijaya, V. H., Widiatry, Priskila, R. & Putra, P. B. A. A. (2019). Penerapan Skala Likert dan Skala Dikotomi Pada Kuesioner Online. *Jurnal Sains Dan Informatika*, *5*(2), 128–137. https://doi.org/10.34128/jsi.v5i2.185

Pranyoto, E., Susanti & Septiyani. (2020). Herding Behavior, Experienced Regret dan Keputusan Investasi Pada Bitcoin. *Jurnal Bisnis Darmajaya*, *6*(1), 29–43. https://doi.org/10.30873/jbd.v6i1.1928

Pujiyanto, N. & Mahastanti, L. A. (2013). *Regret Aversion Bias dan Risk Tolerance Dalam Keputusan Investasi*. http://jp.feb.unsoed.ac.id/index.php/sca-1/article/viewFile/281/286

Purwidianti, W., Rahmawati, I. Y. & Dwiyanti, R. (2023). Overconfidence and Herding Bias on Investment Decisions the Role of Risk Perception as a Mediator. *Asian Journal of Economics, Business and Accounting*, *23*(18), 36–45. https://doi.org/10.9734/ajeba/2023/v23i181056

Putri, I. R. & Hikmah. (2020). Pengaruh Financial Literacy, Overconfidence, Regret Aversion

Bias dan Risk Tolerance Terhadap Investment Decision di Kota Batam. *Junral IIlmiah Maksitek*, *5*(2), 95–109.

Putri, W. W. & Hamidi, M. (2019). Pengaruh Literasi Keuangan, Efikasi Keuangan, dan Faktor Demografi Terhadap Pengambilan Keputusan Investasi (Studi Kasus Pada Mahasiswa Magister Manajemen Fakultas Ekonomi Universitas Andalas Padang). *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen*, *4*(1), 398–412. https://doi.org/10.24815/jimen.v4i1.10703

Rabbani, I. A. & Saputra, I. (2022). Financial Literacy dan Overconfidence dalam Keputusan Investasi. *JIM : Journal Of International Management*, *1*(1), 1–18. https://azramedia-indonesia.azramediaindonesia.com/Index.Php/Jim/Article/View/163

Rahman, F. & Dewi, S. (2023). Pengaruh Overconfidence, Gambler’S Fallacy Dan Loss Aversion Terhadap Keputusan Investasi Di Sumatera Utara. *Jurnal Riset Akuntansi Dan Bisnis*, *23*(1), 54–62. https://doi.org/10.30596/14510

Rakhmatulloh, A. D. & Asandimitra, N. (2019). Pengaruh Overconfidence, Accounting Information, dan Behavioural Motivation Terhadap Keputusan Investasi di Kota Surabaya. *Jurnal Ilmu Manajemen (JIM)*, *7*(3), 796–806.

Rona, I. W. & Sinarwati, N. K. (2021). Pengaruh Herding Bias dan Overconfidence Bias terhadap Pengambilan Keputusan Investasi. *Studi Akuntansi Dan Keuangan Indonesia*, *4*(2), 104–130. https://doi.org/10.21632/saki.4.2.104-130

Kurniawati S, I. Y. (2020). Pengaruh Pengetahuan Keuangan, Risk Tolerance Terhadap Investasi Saham, Dimoderasi Gender. *BALANCE: Economic, Business, Management and Accounting Journal*, *17*(1), 91. https://doi.org/10.30651/blc.v17i1.4188

Salerindra, B. (2020). Determinan Keputusan Investasi Mahasiswa pada Galeri Investasi Perguruan Tinggi di Surabaya dan Malang. *Jurnal Ilmu Manajemen*, *8*(1), 157–173. https://jurnalmahasiswa.unesa.ac.id/index.php/jim/issue/view/1842

Setiyono, W. P., Sriyono & Detak Prapanca. (2021). Financial techololology. In M. T. Multazam & M. D. K. Wardana (Eds.), *Umsida Press*. UMSIDA Press. https://press.umsida.ac.id/index.php/umsidapress/article/download/978-623-6292-68-6/1048/

Soedarso, Sri Widodo. (2017). *Teori & Teknik Pengambilan Keputusan* (A. S. Hamidin (ed.)). Penerbit Manggu Makmur Tanjung Lestari.

Sugiyono, P. D. (2016). *Metode Penelitian Kuantitatif, Kualitatif Dan R & D* (23nd ed.). Alfabeta.

Sujarweni, V. W. (2019). *Metodologi Penelitian Bisnis & Ekonomi*. Pustaka Baru Press.

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

Sulhia, B. A., Handajani, L. & Surasni, N. K. (2022). The Effect of Financial Literacy, Herding Behaviour and Overconfidence on Investment Decisions in the Millennial Generation. *Traektoriâ Nauki = Path of Science. 2022*, *8*(7), 1030–1039. https://doi.org/10.22178/pos.83-7

Sulistyowati, A., Rianto, M. R., Handayani, M. & Bukhari, E. (2022). Pengaruh Financial

Literacy, Return dan Resiko terhadap Keputusan Investasi Generasi Milenial Islam di Kota Bekasi. *Jurnal Ilmiah Ekonomi Islam*, *8*(2), 2253–2260. https://doi.org/10.29040/jiei.v8i2.5956

Suryani, S. & Ramadhan, S. (2017). Analisis Literasi Keuangan Pada Pelaku Usaha Mikro di Kota Pekanbaru. *Journal of Chemical Information and Modeling*, *1*(1), 12–22. https://doi.org/10.31539/costing.v1i1.67

Tubastuvi, N., Ramadani, A. G., Rachmawati, E. & Rahmawati, I. Y. (2022). Pengaruh Financial Literacy, Financial Behavior dan Financial Experience Terhadap Keputusan Investasi Generasi Milenial di Batam. *Jurnal Manajemen Dan Bisnis Indonesia*, *8*(1), 57–64. https://doi.org/10.32528/jmbi.v8i1.6464

Upadana, I. W. Y. A. & Herawati, N. T. (2020). Pengaruh Literasi Keuangan dan Perilaku Keuangan terhadap Keputusan Investasi Mahasiswa. *Jurnal Ilmiah Akuntansi Dan Humanika*, *10*(2), 126–135. https://doi.org/10.23887/jiah.v10i2.25574

Wang, H., Li, S. & Ma, Y. (2021). Herding in Open-end Funds: Evidence from China. *North American Journal of Economics and Finance*, *57*, 101417. https://doi.org/10.1016/j.najef.2021.101417

Wardani, A. K. & Lutfi, L. (2016). Pengaruh literasi keuangan, experienced regret, risk tolerance, dan motivasi pada keputusan investasi keluarga dalam perspektif masyarakat Bali. *Journal of Business & Banking*, *6*(2), 195–214. https://doi.org/10.14414/jbb.v6i2.996

Wardhana, A. kusuma, Ratnasari, R. tri & Fauziana, H. (2023). Islamic Investment in Indonesia Before and During Pandemic of Covid-19: a Bibliometric Study. *Berkala Akuntansi Dan Keuangan Indonesia*, *8*(1), 22–37. https://doi.org/10.20473/baki.v8i1.33557

Wibowo, D. A. S. & Purwidianti, W. (2022). *Pengaruh Overconfidence, Regret Aversion, Loss Aversion, Herding Bias dan Illusion of Control Terhadap Keputusan Investasi Mahasiswa Perguruan Tinggi di Purwokerto*. Universitas Muhammadiyah Purwokerto.

Wira, R., Sandri, S. H. & Hidayat, R. (2022). Faktor Psikologi dan Keputusan Investasi Mahasiswa di Pasar Modal. *Jurnal Riset Akuntansi Dan Keuangan*, *10*(1), 93–102. https://doi.org/10.17509/jrak.v10i1.36709

Wulandari, D. A. & Iramani, R. (2014). Studi Experienced Regret, Risk Tolerance, Overconfidance dan Risk Perception Pada Pengambilan Keputusan Investasi. *Journal of Business and Banking*, *4*(1), 55. https://doi.org/10.14414/jbb.v4i1.293

Yolanda, Y. & Tasman, A. (2020). Pengaruh Financial Literacy dan Risk Perception terhadap Keputusan Investasi Generasi Millennial Kota Padang. *Jurnal Ecogen*, *3*(1), 144–154. https://doi.org/10.24036/jmpe.v3i1.8533

Yuliani, D. & Nurwulandari, A. (2023). The Influence of Financial Literacy, Investment Experience, and Overconfidence on Investment Decisions in National University Master of Management Study Program Students with Risk Tolerance as an Intervening Variable. *International Journal of Social Service and Research*, *3*(10), 2399–2411. https://doi.org/10.46799/ijssr.v3i10.548

Published by University of Airlangga.

Yulianis, N. & Sulistyowati, E. (2021). The Effect Of Financial Literacy, Overconfidence, And Risk Tolerance On Investment Decision. *Journal of Economics, Business, and Government Challenges*, *4*(1), 61–71. https://doi.org/10.33005/ebgc.v4i1.172

Zhuo, J., Li, X. & Yu, C. (2021). Parameter behavioral finance model of investor groups based on statistical approaches. *Quarterly Review of Economics and Finance*, *80*, 74–79. https://doi.org/10.1016/j.qref.2021.01.012