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The Role of Financial Literacy, Perceived Risk, and Technological Advances in Millennial Generation Investment Decisions in the Capital Market

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Abstract

This study aims to determine the effect of financial literacy, risk perception and technological progress partially and simultaneously on the investment decisions of the millennial generation living in Denpasar city. The population in this study is the millennial generation from the city of Denpasar who have invested in the capital market. The sampling technique used non-probability sampling with a purposive sampling approach and the sample size was determined using the slovin formula so that 100 people were obtained as samples with the criteria set by the researcher. Empirical data was collected by distributing questionnaires online using the Google form. The data analysis technique in this study used the multiple linear regression analysis method with the help of the SPSS 26 software program. The results of this study indicate that financial literacy, risk perception, and technological advances have a significant positive effect on investment decisions in the capital market in the millennial generation in Denpasar city.

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1 Introduction

The Indonesian capital market in recent years has developed very rapidly. The development of the capital market is seen as an effective means of increasing economic growth and national development in the era of globalization (Pradikasari & Isbanah, 2018). The development of the Indonesian capital market can be seen from the increase in the number of people actively participating as capital market investors. According to data from the Indonesian Central Securities Depository Authority (KSEI), as of July 2022, the number of investors in the Indonesian capital market has reached 9.3 million Single Investor Identity (SID) consisting of investors in stocks, bonds, mutual funds, and other securities owned by registered investors. at the Indonesian Central Securities Depository (KSEI). Compared to 2019, the number of Indonesian capital market investors as of July 2022 has tripled (Stiglitz, 2000; Healy & Palepu, 2001).

The number of Indonesians who are capital market investors has increased significantly in the last four years. However, this achievement is far from the current population of Indonesia. According to data Central Statistics Agency (2021), Indonesia's population is estimated to reach 272.6 million in 2021, meaning that only around 3.4% of Indonesia's population invests in the capital market. This is because some people still do not know what investment (capital market) is and what it is used for, so people still cannot distinguish between investment (capital market) and saving (Febrianingrum, 2022). Another cause of investment in the capital market is less desirable because the benefits it provides take a long time. Therefore, people tend to prefer to save their money in deposits. It happens because Indonesia is a developing country, where the financial orientation of the people is short-term and is included in the saving society category. In contrast to developed countries that have long-term financial exposure or the investing society (investment) (Latifah, 2019).

Millennials are individuals born amid technological developments from 1980 to 2000 (Budiati et al., 2018). The millennial generation is also synonymous with smartphones, the internet, and must-have social media. But on the other hand, most of the millennial generation have consumptive behavior. This behavior can cause the millennial generation to be unable to manage their finances properly, which will cause financial difficulties. A survey conducted by the Indonesian Millennials Reports 2019 showed that most millennials tend to have a consumptive personality and only set aside two percent of their income for investment (Indonesia Millennial Report, 2019). This was also reinforced in a survey by the IDN Institute and Alvara Research Center, which showed that millennials saved only 10.7% of their income. In comparison, 51.1% of their income was used for monthly needs Ali et al. (2020), so it can say that the awareness of the millennial generation's investment is still deficient (Tomášková et al., 2011; Van Rooij et al., 2011).

Public awareness of financial literacy from an early age is still deficient, especially for the millennial generation, who tend not to have good financial management. In addition, a low level of financial literacy also causes an individual to be trapped in investment fraud cases (Landang et al., 2021). Financial literacy is the ability of an individual to make an effective decision and make an informed assessment about the use and management of finances to achieve economic prosperity in the future (Wahyudi & Tristiarto, 2022). Pertiwi (2018) states that financial literacy significantly influences investment decision-making. The better the level of financial literacy an individual has, the better the investment decisions will be. Research by Mahwan & Herawati (2021) also states that there is a significant influence between financial literacy on investment decisions. However, it is different from the results of research conducted by Safryani et al. (2020); Pradhana (2018) that financial literacy has no significant effect on investment decisions.

Another factor that influences investment decisions is risk perception. In calculating an investment risk, of course, each individual has a different size from one another, so the assumption of this risk can influence investment decisions. Perception has essential benefits for risk for each investment instrument related to human behavior in decision-making (Ainia & Lutfi, 2019). Perception of risk is a person's view or assessment of a risky situation; this assessment depends on a person's characteristics and psychological state (Pradikasari & Isbanah, 2018). In a study conducted by Aren & Zengin (2016), risk perception influences individual personal investment preferences. Yolanda & Tasman (2020) found that perceived risk positively affects investment decisions because someone who will use or choose an investment, of course, will make considerations or perceive the risks of losses and profits that he will receive later. However, it is different from research conducted by Ainia & Lutfi (2019), which states that perceived risk negatively influences investment decision-making (Mutawally & Asandimitra, 2019).

In addition to risk perception, investment decisions are also influenced by technological advances (Hardiati, 2021). Technological developments also make it easy for potential investors to learn various investment information through YouTube videos, Google, and others. Technology is necessary so that potential investors avoid irrational practices (gambling), a culture of following along, and investment fraud to minimize the risk of loss (Piraga et al., 2021). Technological advances affect investment decisions because they make it easier and provide comfort for users, such as monitoring invested stocks only through gadgets so that time is used more efficiently (Hardiati, 2021). Putri & Hamidi (2019) define investment decisions as a process of concluding a problem, looking for investment options, and can determine the success of an investor. These investment options include stocks, bonds, mutual funds, derivatives, and Exchange Trade Funds (ETF).

Literature review and hypothesis

According to Wahyudi & Tristiarto (2022), financial literacy is the ability of an individual to make an effective decision and assess information about the use and management of finances to achieve economic well-being in the future. Kartawinata & Mubaraq (2018) define financial literacy as the ability to analyze, read, manage, and communicate about individual financial conditions that can affect economic well-being. From the several definitions above, it can conclude that financial literacy is the ability and knowledge possessed by a person to manage financial resources by making the right financial decisions. So that future economic conditions are more secure, avoiding financial problems and increasing financial well-being. With increased ability and knowledge in analyzing financial information, the individual can increase his capacity to invest with higher risks. Investment decisions are closely related to the level of financial literacy. Individuals with a high level of financial literacy tend to prefer investing in investment instruments that are more complex and have an increased risk compared to individuals who have low financial literacy (Abdeldayem, 2016). Financial literacy affects almost all aspects of planning and spending money, such as income, use of credit cards, savings, investments, financial management, and financial decisions. This is in line with the results of research by Mahwan & Herawati (2021), which state that financial literacy significantly influences investment decisions. Pertiwi (2018) research results also show that financial literacy significantly affects investment decision-making (Fama, 1975; Virlics, 2013).

H1: Financial literacy has a significant effect on investment decisions

According to Wahyuni & Dahmiri (2021), the perception of risk is an unwanted consequence, and consumers want to avoid this risk that arises from purchasing a product. Perceived risk can also be interpreted as a person's view or assessment of a risky situation. Assessment depends on a person's characteristics and psychological state (Pradikasari & Isbanah, 2018). Research conducted by Astuti (2018) states that perceived risk has a significant positive effect on investment decisions and Aren & Zengin (2016) also say that the level of perceived risk has a positive influence on investment decisions. This shows that individuals will assess risks based on their expertise so that they already know the risk level they will accept and will make better investment decisions.

H2: Perceived risk has a significant effect on investment decisions

Technology advances

Technology advancements have provided many conveniences for human life in all fields, including investment. It is now more accessible for people to access information related to the capital market so that investors will be quicker and more precise in analyzing and making investment decisions. According to Wibowo (2020), Technological advances make it easy to invest in the capital market because there is support from applications or the web provided by securities companies, such as being able to invest in stocks and mutual funds starting from ten thousand rupiahs so this can attract the interest of the millennial generation who have not yet have their income and still depend on their parents' pocket money. The emergence of various types of innovation in the capital market caused by technological developments has had several positive and negative impacts (Wajeetongratana, 2020).

Technological developments in investing can be seen in the existence of investment applications that make it easier to invest anywhere and anytime so that an investor will be more precise in making investment decisions. Hardiati (2021) states that technological advances affect investment decisions because they can make it easier and provide convenience for users, such as monitoring invested stocks only through gadgets so that time is used more efficiently. This is the same as the research results of Piraga et al. (2021); Negara & Febrianto (2020), which show that technological advances significantly affect the interest of the millennial generation in investing in the capital market.

H3: Technological progress has a significant effect on investment decisions

2 Methods

The location of this research was carried out on the millennial generation in the Denpasar city area. The population in this study is the millennial generation in the city of Denpasar, with an age range of 21-41 years, namely 229,827,828 and rounded up to 229,827 (BPS Province of Bali, 2020). Determination of the number of samples in this study using the slovin formula with a total of 100 samples. The type of data used in this study is quantitative data with primary data as the data source. The data collection technique in this study used a questionnaire. The research instrument used in this study was a questionnaire containing several statements related to the independent variables and the dependent variable of the study. The financial literacy variable consists of 4 indicators and 10 statements, the risk perception variable consists of 3 indicators and 4 statements, the technological progress variable consists of 2 indicators and 4 statements, and the investment decision variable consists of 3 indicators and 5 statements. To test the effect of financial literacy, risk perception and technological advances on investment decisions, multiple linear regression models are used with SPSS 26 data processing (Heshka et al., 2008; Lim, 2003).

3 Results and Discussions

Normality Test

Table 1
Normality Test

		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	0,0000000
	Std. Deviation	2,70137558
Most Extreme Differences	Absolute	0,081
	Positive	0,065
	Negative	-0,081
Test Statistic		0,081
Asymp. Sig. (2-tailed)		0,106[c]

Primary Data, 2022

Based on the normality test shown in Table 1 it shows that the Asymp. Sig. (2-tailed) is 0.106 which is greater than 0.05 which indicates that the data is normally distributed, so it can be concluded that the model meets the normality assumption.

Multicollinearity Test

Table 2
Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Financial Literacy	0,546	1,831
	Risk Perception	0,652	1,535
	Technological Advance	0,683	1,464

Primary Data, 2022

Table 2 shows that all independent variables have a tolerance value > 0.1, and the VIF value calculation results in all variables having a VIF value < 10. This means that in the regression model created, there are no symptoms of multicollinearity.

Heteroscedasticity Test

Table 3
Heteroscedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4,394	1,017		4,322	0,000
	Financial Literacy	0,016	0,029	0,073	0,549	0,584
	Risk Perception	-0,110	0,063	-0,215	-1,761	0,081
	Technological Advance	-0,083	0,065	-0,152	-1,277	0,205

Primary Data, 2022

Table 3 shows that each model has a significance value greater than 0.05. It means that in this regression model, there is no similarity of variance from one residual observation to another or there is no heteroscedasticity.

Hypothesis testing

Table 4
Partial Regression Test Results (t-test)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2,660	1,620		1,642	0,104
	Financial Literacy	0,170	0,047	0,338	3,616	0,000
	Risk Perception	0,334	0,100	0,286	3,345	0,001
	Technological Advance	0,330	0,103	0,267	3,196	0,002

Primary Data, 2022

The effect of financial literacy on investment decisions

Based on table 4 it can be seen that the t coefficient value is 3.616 > t table 1.984, the regression coefficient value is 0.170, and the significance is 0.000. When compared, the significance value is less than 0.05 which means that H0 is rejected or H1 is accepted. So that financial literacy has a positive and significant effect on investment decisions.

The effect of perceived risk on investment decisions

Based on table 4 it can be seen that the t coefficient value is 3.345 > t table 1.984, the regression coefficient value is 0.334, and the significance is 0.001. When compared, the significance value is less than 0.05 which means that H0 is rejected or H2 is accepted. So the perception of risk has a positive and significant effect on investment decisions (Koh & Magee, 2006; Fagerberg, 2000).

The effect of technological advances on investment decisions

Based on table 4 it can be seen that the t coefficient value is 3.196 > t table 1.984, the regression coefficient value is 0.330, and the significance is 0.002. When compared, the significance value is less than 0.05 which means that H0 is rejected or H3 is accepted. So that technological advances have a positive and significant effect on investment decisions (Ruziyev et al., 2022; Saini & Sharma, 2022).

4 Conclusion

1. Financial literacy has a significant positive effect on investment decisions in the capital market. This means that having a high level of financial literacy will also produce the best investment decisions because investors will analyze, examine and pre-select the types of investments they will choose.
2. Perceived risk has a significant positive influence on investment decisions in the capital market. This means that the better the perception of risk that is owned, the more courageous it tends to be in making investment decisions because it likes risky conditions.
3. Technological progress has a significant positive influence on investment decisions in the capital market. This means that technological advances have provided a lot of convenience and comfort in getting access and information related to the capital market, thereby encouraging increased investment decisions for the millennial generation to invest in the capital market.

Conflict of interest statement
The authors declared that they have no competing interests.

Statement of authorship
The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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