Assessment of Financial Literacy, Technological Advancement, and InitialCapital Availability in Investment Decision-Making in the Capital Market(A Case Study on Employees of PT. Nagamas Putera Jaya)

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ABSTRACT

This study aims to examine the influence of financial literacy, information technology development, and initial capital availability on investment decision-making in the capital market. This research is a quantitative study. Data collection was conducted using a questionnaire in the form of a Google form with a Likert scale measurement. The sampling method used non-probably sampling, with a sample size of 80. Data analysis technique used multiple regression analysis. The results show that financial literacy, information technology development, and initial capital availability have a significant influence on investment decision-making in the capital market. The results of the t-test on financial literacy obtained a significance result of 0.001 < 0.05, which means that financial literacy significantly influences investment decision-making in the capital market. Information technology advancement obtained a significance result of 0.002 < 0.05, which means that information technology advancement influences investment decision-making in the capital market. And initial capital obtained a significance result of 0.002 < 0.05, which means that initial capital influences investment decision-making in the capital market. Meanwhile, the results of the F-test obtaineda significance result of 0.000 < 0.05, which means that simultaneously financial literacy, information technology advancement, and initial capital influence investment decision-makingin the capital market.

Keywords: Financial Literacy; Information Technology; Initial Capital; Investment DecisionMaking; Capital Market.

INTRODUCTION

The capital market is one of the important instruments in the financial system of a country thatplays a strategic role in allocating resources to economic sectors in need of funding. In this context, investment decision-making by capital market participants becomes crucial. In recent years, financial literacy, advancements in information technology, and the availability of initialcapital have been the focus of attention in studies on investment behavior.

The capital market is a key element in the financial system of a country, facilitating the flow of funds from investors to businesses in need of funding for growth and development. In the dynamics of the capital market, investment decision-making by market participants has significant implications for economic growth and corporate development (Agarwala and Jacob:2015).

In recent years, studies on investment behavior have highlighted the crucial role of three mainfactors: financial literacy, advancements in information technology, and the availability of initial capital, in shaping investment preferences and decisions. Financial literacy encompasses understanding financial concepts, investment risks, and financial management strategies, while advancements in information technology provide faster and broader accessibility to capital market information. Additionally, the availability of initial capital plays a crucial role in enabling individuals to start investing in the capital market.

This phenomenon indicates that investors, both experienced and newly entering the capital market, are paying increasing attention to the aspects of financial literacy, information technology, and initial capital when making their investment decisions. With the advancement of information technology, it becomes easier for investors to access capital market informationand conduct investment transactions. However, low levels of financial literacy and limited availability of initial capital can be barriers for some individuals to capitalize on investment opportunities in the capital market.

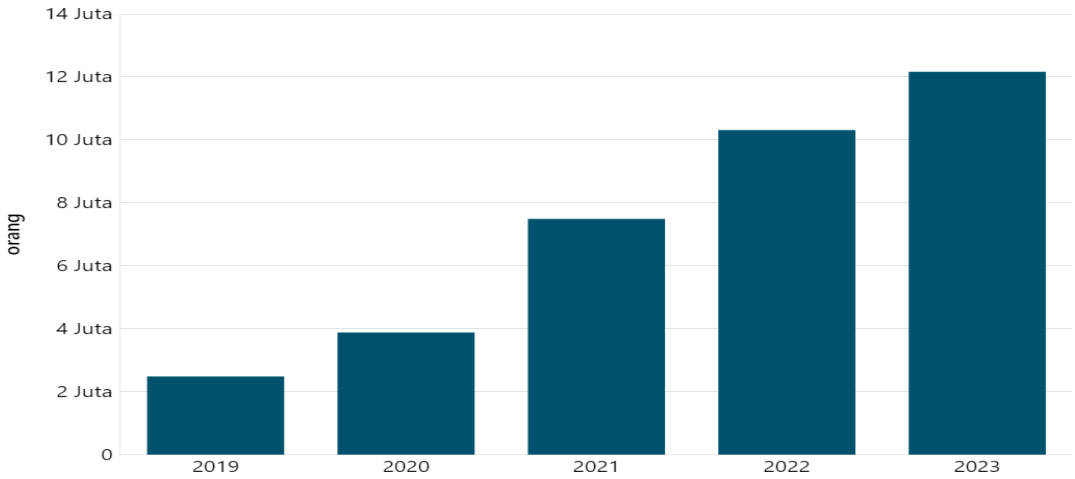
Below is the table showing the growth of the number of investors in the Indonesian capital market from 2019 to 2023:

No.	Year	Number of Investors
1	2019	2.484.000
2	2020	3.881.000
3	2021	7.489.000
4	2022	10.310.000
5	2023	12.162.000

Source: Data processed from

https://databoks.katadata.co.id/datapublish/2023/12/29/investor-pasar-modal- indonesia-tembus-1216-juta-orang-pada-2023

Table 1: Growth of the Number of Investors in the Indonesian Capital Market



Source: Data processed from

https://databoks.katadata.co.id/datapublish/2023/12/29/investor-pasar-modal- indonesia-tembus-1216-juta-orang-pada-2023

Figure 1: Graph of the Growth of the Number of Investors in the Indonesian CapitalMarket

Based on the data in Table 1 and Figure 1, it can be seen that according to records from the Indonesia Stock Exchange (IDX), the number of investors in the Indonesian capital market reached 12.16 million people in 2023. This figure increased by 18% or 1.85 million people from 2022, which was 10.31 million investors. IDX also stated that the achievement in 2023 increased 11 times since 2017. The annual active investors reached 1.43 million people in 2023.In 2019, the number of investors was recorded at 2.48 million people. The number then increased to 3.88 million investors in 2020. Despite the Covid-19 pandemic hitting afterwards,the number of investors still increased to 7.48 million people in 2021. Until December 28, 2023, there have been more than 18,000 socialization, education, and capital market literacy activities, with the number of participants reaching more than 3.1 million people across Indonesia, said IDX.

In this context, it is crucial to conduct a thorough review of these factors in making investment decisions in the capital market. With a better understanding of the influence of financial literacy, advancements in information technology, and the availability of initial capital, it is hoped that a strong foundation can be provided for investors to make smarter and more effective investment decisions.

Information technology has made investment more accessible and understandable to many people, thereby opening opportunities for more individuals to participate in the capital market and leverage the potential for investment growth. However, it is important for investors to remain vigilant and conduct careful research before making investment decisions, even thoughtechnology has made it easier (Janna:2020).

Initial capital refers to the funds needed or available to start an investment. It is the amount ofmoney that an investor must prepare before starting an investment in the capital market or

in other types of investments (Firdausa et al., 2015). Initial capital plays a very important role ininvestment because it can limit or influence the types of investments that an individual can make. The greater the initial capital available, the greater the investment options that can be chosen, as some types of investments may require larger amounts of capital to start.

It is important for an investor to carefully consider how much initial capital is available and thebest way to allocate that capital according to investment goals and the level of risk that can betolerated. By planning their initial capital well, an investor can start their investment journey with a strong footing and enhance the chances of investment success in the future.

LITERATURE REVIEW

Capital Market

The capital market is a part of a country's financial system that facilitates the trading of securities such as stocks and bonds between companies and investors. In the capital market, companies can raise capital by selling stocks or bonds to investors, while investors can acquire ownership in the company and potential profits through such investments (Tetty, et al., 2017).In the context of the capital market, initial capital can be used to purchase stocks, bonds, mutualfunds, or other types of investments. Additionally, initial capital can also be utilized to cover transaction costs, administrative fees, or other expenses associated with investments (Abi, 2016).

Investment Decision Making

Investment decision making is the process by which individuals or entities select investment instruments that align with their financial goals, considering various factors including risk, potential returns, liquidity, as well as external factors such as market conditions and regulations

(Hermawan, 2012). Investment involves allocating money or other resources with the expectation of earning profits in the future. The goal of investment is typically to increase thevalue of money or assets invested through capital growth or passive income. Investments can be made in various forms, including stocks, bonds, mutual funds, real estate, currencies, precious metals, among others (Darmawan et al., 2019).

Financial Literacy

Financial literacy refers to an individual's ability to understand and use financial information effectively in making sound financial decisions (Aida, et al., 2021). Financial literacy is crucial as it can help individuals manage their finances better, mitigate financial risks, and enhance long-term financial well-being. Individuals with high levels of financial literacy tend to be more capable of making smart financial decisions, leveraging investment opportunities effectively, and managing financial risks more efficiently (Afrida & Sari, 2021).

Advancements in Information

Technology Information Technology (IT) is a term that refers to the use of technology in collecting, storing, processing, and exchanging information. IT involves various tools, systems, and applications designed to assist individuals, organizations, and societies in managing information more efficiently and effectively.

Initial Capital

Initial capital is the funds required or available initially to start a business, project, or investment. It is the amount of money or other resources needed to initiate the intended activity or project. In the context of investment, initial capital refers to the amount of money required to start investing in a financial instrument or asset. This initial capital can be used to purchase stocks, bonds, mutual funds, real estate, or other types of investments.

RESEARCH METHODS

In this research, the researcher used a method with a quantitative approach and an associative research type. The quantitative approach was used to measure and analyze data numerically, while the associative research type aims to explain the relationship between two or more variables.

The population of this study is all employees of PT. Nagamas Putera Jaya. The sampling method used was non-probability sampling referring to the Slovin formula approach. This research used the Slovin formula to determine the appropriate sample size for a large population.

Based on this method, the researcher obtained a sample of 80 employees from the established population. Thus, this research will collect data from 80 employees of PT. Nagamas Putera Jaya using a quantitative approach and an associative research type to analyze the relationship between the variables under investigation.

In this research, the data source used is primary data, meaning that the data are obtained directly from the source. The method of data collection is conducted through the use of a questionnaire distributed to respondents in the form of a questionnaire.

RESULTS

Reliability Test

Based on the results of reliability testing, if each variable has a Cronbach's alpha value greater than 0.70, then the financial literacy, advancements in information technology, initial capital, and decision-making variables can be considered reliable. This indicates that the questions or items used to measure each variable are correlated with each other and provide consistent results.

Based on the reliability test results, the Cronbach's alpha values for each variable (financialliteracy, advancements in information technology, initial capital, and decision-making) are greater than 0.70 with a result of 0.73. Therefore, these variables can be considered reliable or dependable in measurement and analysis within the research context.

Table 2 Reliability Test

Variable	*Cronbach Alpha*	*Alpha*	Remarks
Financial Literacy	0,893	0,73	Reliable
Advancements in Information Technology	0,885	0,73	Reliable
Initial Capital	0,791	0,73	Reliable
Decision-making	0,781	0,73	Reliable

Based on the reliability test results, the Cronbach's alpha values for each variable (financial literacy, advancements in information technology, initial capital, and decision-making) are greater than 0.70 with a result of 0.73. Therefore, these variables can be considered reliable ordependable in measurement and analysis within the research context.

Normality Test

Normality test is a test to assess the distribution of data in a variable or data group, whether it is normally distributed or not. If the data is normally distributed, it can be assumed that the data is randomly sampled from a normal population.

Data is said to be normally distributed if it does not have significant or standardized differences compared to a standard normal distribution. If using statistical tests, such as the Kolmogorov-Smirnov test, a variable is considered normally distributed if the significance value is greater than or equal to 0.05. Conversely, if the significance value is less than 0.05, the variable or data is considered not normally distributed.

Table 3 Normality Test
One- Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		80
Normal Parameter[a]	Mean	.0000000
	Std. Deviation	.31274556
Most Extreme Differences	Absolute	.125
	Positive	.082
	Negative	-.125
Kolmogorov-Smirnov Z		1.081
Asymp. Sig. (2-tailed)		.186

A variable is considered to have a normal distribution if its significance value is greater than or equal to 0.05. Based on the normality test results in Table 3, the p-value of 0.186 > 0.05 forall variables, indicating that all variables (financial literacy, advancements in information technology, initial capital, and decision-making) can be considered to have a normal distribution.

Multicollinearity Test

The test can be conducted by examining the values of Tolerance and Variance Inflation Factor (VIF) in the regression model. The decision-making criteria related to multicollinearity testingare as follows (Ghozali, 2016):

1. If the VIF value < 10 or the Tolerance value > 0.01, then multicollinearity is not present.

2. If the VIF value > 10 or the Tolerance value < 0.01, then multicollinearity is present.

3. If the correlation coefficient of each independent variable > 0.8, then multicollinearityoccurs. However, if the correlation coefficient of each independent variable < 0.8, thenmulticollinearity does not occur.

Table 4 Multicollinearity Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	.861	.348		2.517	.015		
	Financial Literacy	.376	.062	.482	5.714	.000	.768	1.318
	Information Technology Advancements	.235	.074	.234	3.260	.003	.886	1.128
	Initial Capital	.189	.069	.254	3.177	.002	.733	1.382

Based on Table 4, it is known that the tolerance value for the financial literacy variable is 0.768 > 0.10. The tolerance value for the information technology advancements variable is 0.886 > 0.10. The tolerance value for the initial capital variable is 0.733 > 0.10. Meanwhile, the VIF values for the financial literacy variable is 1.318 < 10, for the information technology advancements variable is 1.128 < 10, and for the initial capital variable is 1.382 < 10. Therefore, based on these results, it can be stated that multicollinearity does not occur in this study.

Homoscedasticity Test

Homoscedasticity test is a statistical test used to check whether the variance of errors (residuals) in the regression model is constant at every level of the independent variables. In the context of regression analysis, homoscedasticity is an important assumption that must be met for the results of regression analysis to be reliable.

Table 5 Homoscedasticity Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.188	.227		.824	.406
	Financial Literacy	-.0.69	.042	.197	-.1629	.108
	Information Technology Advancements	.068	.052	.139	1.154	.253
	Initial Capital	.011	.041	.022	.262	.795

Based on Table 5, the homoscedasticity test results are evidenced by the financial literacy variable with a significance value of 0.108 < 0.05, the information technology advancements variable with a significance value of 0.253 < 0.05, and the initial capital variable with a significance value of 0.795 < 0.05. Therefore, it can be said that the data exhibit homoscedasticity. Consequently, it can be concluded that this research passes the homoscedasticity test.

Autocorrelation Test

Autocorrelation test, also known as serial correlation test, is a statistical technique used to examine whether there is a pattern of correlation between successive values of residuals in a regression model.

Table 6 Autocorrelation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.765[a]	.580	.565	.31825	2.100

Autocorrelation is fulfilled if dU < dW < 4 - dU. In this study with K = 3 and N = 80, the value of dW obtained from Table 6 is 2.100. Therefore, there is no autocorrelation.

Hypothesis Testing

Partial Hypothesis Test (t-test)

Table 7 t-test

Variable	T	Sig.	Interpretation
Financial Literacy	5.824	.001	Significant
Information Technology Advancements	3.260	.002	Significant
Initial Capital	3.188	.002	Significant

Dependent Variable: Decision making

Based on the calculations in Table 7, the following conclusions can be drawn:

a. Influence of financial literacy on decision making The financial literacy variable has asignificance value of 0.001 < 0.05. Therefore, the null hypothesis (H0) is rejected, indicating that financial literacy has an influence on decision making.
b. Influence of information technology advancements on decision making The significance value of the information technology advancements variable in Table 7 is
0.002 < 0.05. Thus, the null hypothesis (H0) is rejected, suggesting that the informationtechnology advancements variable has an influence on decision making.
c. Influence of initial capital on decision making The initial capital variable in Table 7 hasa significance value of 0.002 < 0.05. Consequently, the null hypothesis (H0) is rejected,indicating that initial capital has an influence on decision making.

Hypothesis Testing Simultaneously (F-test)

The F-test produces the F-statistic and the p-value. If the resulting p-value is smaller than the predetermined significance level (usually 0.05), then we reject the null hypothesis and conclude that at least one independent variable has a significant effect on the dependent variable together.In other words, the regression model as a whole is significant.

Tabel 8 F-test

ANOVA[b]

Model		Sum of squares	Df	Mean Square	F	Sig
1	Regression	11.542	3	3.854	37.966	.000[a]
	Residual	8.605	87	.102		
	Total	20.247	88			

Based on Table 8, the significance value is 0.000 < 0.05. Therefore, the null hypothesis (H0) is rejected. This means that financial literacy, information technology advancements, and initialcapital collectively influence investment decision making.

Coefficient of Determination Test

The coefficient of determination, denoted as R2, has a range of values between 0 and 1. a higher R2 value indicates that the regression model is better at explaining the variation in the dependent variable. If R2 approaches 1, it indicates that the independent variables in the regression model can explain most of the variation in the dependent variable.

Table 9 Coefficient of Determination Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the	Durbin-Watson
1	.765[a]	.580	.565	.31825	2.100

Dependent Variable: Investment Decision Making

From Table 9, the R Square value is 0.580 or 58%. This indicates that 58% of the investment decision-making variable is influenced by the independent variables: financial literacy, information technology advancements, and initial capital. The remaining percentage is influenced by other independent variables not included in this study.

DISCUSSION

a. The Influence of Financial Literacy on Capital Market Decision Making In the t-test, the significance value of 0.001 < 0.05 indicates that financial literacy significantly influences capital market decision making among employees of PT. Nagamas Putera Jaya. It can be concluded that employees who are equipped with good financial literacy or financial knowledge tend to make investment decisions in the capital market.

b. The Influence of Information Technology Advancements on Capital Market Decision Making In the t-test, with a significance value of 0.002 < 0.05, it means that information technology advancements significantly influence investment decision making in the capital market among employees of PT. Nagamas Putera Jaya. Technological advancements can enhance decision making as they provide easier access to transaction activities. In this study, it can be inferred that information technology advancements contribute to the increased decision making in the capital market, as they make investment activities much more

accessible.

c. The Influence of Initial Capital on Investment Decision Making in the Capital Market In thet-test, with a significance value of 0.002 < 0.05, it means that initial capital significantly influences investment interest in the capital market among employees of PT. Nagamas Putera Jaya. Initial capital plays a significant role in investment decision making in the capital market.

d. The Influence of Financial Literacy, Information Technology Advancements, and Initial Capital on Investment Decision Making in the Capital Market In the F-test, with a significance value of 0.000 < 0.05, it means that financial literacy, information technology advancements, and initial capital collectively influence investment decision making in the capital market among employees of PT. Nagamas Putera Jaya.

CONCLUSION, IMPLICATION AND RESEARCH LIMITATIONS

CONCLUSION

Based on the analysis using t-test and F-test, it can be concluded that both individually and collectively, the variables of financial literacy, information technology advancements, and initial capital have a significant influence on investment decision making in the capital market by employees of PT. Nagamas Putera Jaya. This indicates that the level of financial literacy, access to information technology, and availability of initial capital play important roles in shaping employees' investment decisions in the capital market.

IMPLICATIONS

Increasing financial literacy among employees can assist them in understanding the risks and potential returns of investments in the capital market, as well as making smarter investment decisions.

- Utilizing information technology more widely and effectively can facilitate employees in accessing real-time market information and conducting deeper investment analysis.
- The importance of having adequate initial capital to start investing in the capital market underscores the need for companies to provide financial education and opportunities for saving and investing to their employees.

RESEARCH LIMITATIONS

- Generalizability limitations: This study only focuses on employees of PT. Nagamas Putera Jaya, so the results may not be generalizable to other populations.
- Additional factors: This study only considers financial literacy, information technology advancements, and initial capital as variables influencing investment decision making. Further research can explore other factors that may also affect investment decision making in the capital market.

- Research methodology: This study uses a quantitative approach with a questionnaire asthe data collection instrument. Further research can employ a qualitative approach or acombination of both approaches to gain a deeper understanding of the factors influencing investment decision making.

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