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Financial Literacy, Investment Knowledge, and Technological Advancement as Determinants of Generation Z's Stock Investment Intention in Lebaksiu District

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Abstract— This study examines the effects of financial literacy, investment knowledge, and technological advancement on Generation Z's intention to invest in stocks in Lebaksiu District. This quantitative study employed a causal-associative approach. Using the Slovin formula, a sample of 100 respondents was selected. Data were analyzed using classical assumption tests, multiple linear regression, hypothesis tests (t-test and F-test), and the coefficient of determination (R^2). The results show that, partially, financial literacy has no effect on stock investment intention, investment knowledge has a positive effect, and technological advancement has no effect. Simultaneously, financial literacy, investment knowledge, and technological advancement have a positive effect on Generation Z's intention to invest in stocks.

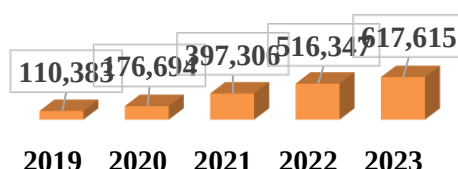
Keywords— *Financial literacy; Investment knowledge; Technological advancement; Stock investment intention*

I. INTRODUCTION

Investment is an activity that young people can undertake in the present era. Investing offers numerous benefits, including passive income, protection of assets against inflation, and returns in the form of dividends and capital gains. Investment can also contribute to the national economy through transactions involving corporate securities traded in the capital market.

Stocks are among the most popular capital market instruments and are highly attractive to investors. Because stocks are among the most liquid investment instruments, they can be traded relatively easily at any time. Stocks may also provide higher returns than other capital market instruments; some stocks can even generate returns of several hundred percent within a certain period.

PT Kustodian Sentral Efek Indonesia (KSEI) has recorded a significant annual increase in the number of stock investors in Central Java within the Indonesian capital market.



Source: KSEI in Figures, 2019–2023; data processed by the author

Figure 1. Number of Stock Investors in Central Java, 2019–2023

Figure 1 presents statistical data on the growth in the number of Single Investor Identification (SID) accounts held by stock investors in Central Java. In 2023, the number reached 617,615 SIDs, representing an increase of 101,268 new investors, or 16%, from 516,347 SIDs in 2022. The increase in the number of stock investors both nationally and in Central Java indicates growing public interest in investing in this instrument.

Stock investors in Central Java are distributed across nearly all cities and regencies, including Tegal Regency. The following data show this distribution:

TABLE I. NUMBER OF STOCK INVESTORS IN TEGAL CITY, TEGAL REGENCY, BREBES REGENCY, AND PEMALANG REGENCY IN 2023

Region	Number of Stock Investors
Tegal City	28,627 SIDs
Brebes Regency	18,854 SIDs
Pemalang Regency	16,892 SIDs
Tegal Regency	137 SIDs

Source: OJK in Figures, 2023 (processed data)

Table 1 shows that, as of December 2023, Tegal Regency had only 137 stock-investor SIDs. This figure was considerably lower than those of Tegal City, with 28,627 SIDs; Brebes Regency, with 18,854 SIDs; and Pemalang Regency, with 16,892 SIDs.

The low level of public participation in stock investment in Tegal Regency presents a concern because it indicates that public interest in stock investment remains very limited. This situation persists even though Tegal Regency's economic growth and per capita income increased significantly in 2023 and exceeded those of one neighboring region. This raises questions about why public interest in stock investment in Tegal Regency remains low and what measures could increase it. Therefore, it is necessary to identify factors that may influence the public's intention to invest in stocks, including financial literacy, investment knowledge, and technological advancement.

Literature Review

Theory of Planned Behavior

The theory of planned behavior (TPB) explains the relationship between an individual's attitudes and actions. It was developed from the theory of reasoned action (TRA), proposed by Ajzen and Fishbein in 1980. TPB states that attitudes and subjective norms are two components that can be used to predict an individual's intention to perform an action. Ajzen argued that TRA could not fully explain behavior when an individual did not have complete control over it; consequently, TRA was further developed into TPB.

According to the theory of planned behavior, Ajzen (1991) explains that human behavior begins with an intention to act and that three conceptually independent factors determine an individual's intention. First, attitude toward the behavior is based on behavioral beliefs, including beliefs about possible outcomes and evaluations of a behavior. Second, subjective norm is based on normative beliefs, including beliefs about expected norms and the motivation to meet those expectations. Third, perceived behavioral control is based on control beliefs, including beliefs about factors that facilitate or impede behavior and awareness of the strength of those factors. These three concepts are measured to determine their influence on an individual's intention to perform a behavior.

Stock Investment Intention

Stock investment intention refers to an individual's interest in allocating a portion of their funds to stock instruments in the capital market with the aim of earning future returns (Widiastiti, 2022).

According to Alma (2018:11), the indicators of an individual's interest in entrepreneurship (or investment) are as follows:

- 1) Personal factors can be observed in individuals who demonstrate strong commitment to or interest in business or investment and have the courage to take risks.
- 2) Environmental factors can be observed through the availability of resources that can be utilized.
- 3) Sociological factors can be identified through relationships with other people, such as partners with whom an individual can collaborate, as well as support and various forms of assistance that facilitate the establishment of a business, including support arising from family background.

Financial Literacy

Financial literacy is a series of processes and activities encompassing knowledge, skills, and confidence that influence an individual's attitudes and behavior, thereby improving financial decision-making and financial management in order to achieve financial well-being (Otoritas Jasa Keuangan, 2017).

According to Selvi (2018:31), the indicators of an individual's financial literacy are as follows:

1. Basic Knowledge of Personal Finance

Basic knowledge of personal finance includes an understanding of the most fundamental aspects of financial transactions.

2. Money Management

This aspect concerns how individuals manage the money they possess.

3. Credit and Debt Management

Individuals can consume goods and services by using credit or debt as a source of financing, with payment made at a later date.

4. Savings and Investment

Savings and investment represent the portion of an individual's surplus income that is not used for consumption. Individuals whose income exceeds their needs have an opportunity to save.

Investment Knowledge

Investment knowledge refers to an individual's understanding of various aspects of investment, ranging from basic investment analysis to investment risks and the potential returns generated by an investment (Burhanudin et al., 2021).

Kusmawati (2016) states that the indicators of an individual's investment knowledge are as follows:

1. Understanding of Investment

This indicator reflects the extent to which an individual understands basic investment concepts that may enable them to earn returns. Prospective investors can acquire such knowledge by seeking further information about fundamental investment concepts.

2. Basic Knowledge of Stock Analysis

Basic knowledge of stock investment appraisal includes an understanding of the returns and risks associated with stock investment, as described above, and can assist individuals in making investment decisions.

Technological Advancement

Technological advancement refers to developments in technology, procedures, and products that facilitate investment activities in the capital market (Cempaka, 2021).

According to Cempaka (2021), the indicators of technological advancement are as follows:

1. Benefits of Technological Advancement

Innovation resulting from technological development in the investment sector can make investing easier and more convenient for investors.

2. Availability of Advanced and Modern Investment Applications

Such applications assist prospective investors by enabling faster and more accurate transactions when investing in stocks.

Based on the theoretical framework above, the hypotheses of this study are formulated as follows:

- H₁ : Financial literacy has a positive effect on Generation Z's stock investment intention in Lebaksiu District.
- H₂ : Investment knowledge has a positive effect on Generation Z's stock investment intention in Lebaksiu District.
- H₃ : Technological advancement has a positive effect on Generation Z's stock investment intention in Lebaksiu District.
- H₅ : Financial literacy, investment knowledge, minimum investment capital, and technological advancement simultaneously have a positive effect on Generation Z's stock investment intention in Lebaksiu District.

II. METHOD

This study employed a quantitative method with an associative approach to analyze the effects of financial literacy, investment knowledge, and technological advancement on stock investment intention in Lebaksiu District.

The population comprised members of Generation Z in Lebaksiu District who were 18–26 years old and were familiar with stock investment in the capital market. A sample of 100 respondents was determined using the Slovin formula. Proportionate stratified random sampling was applied by collecting data on the number of Generation Z residents in each village in Lebaksiu District and then determining the sample size for each village.

Primary data were collected through questionnaires distributed to respondents. The data were analyzed using statistical procedures, including classical assumption tests consisting of normality, multicollinearity, and heteroscedasticity tests, followed by multiple linear regression analysis, hypothesis testing, and coefficient of determination analysis.

III. RESULTS AND DISCUSSION

Validity Test

The validity test showed that all statement items for Financial Literacy (X1), Investment Knowledge (X2), Technological Advancement (X4), and Investment Intention (Y) were valid, as evidenced by calculated r-values greater than the critical r-value (0.361). Therefore, all indicators were valid and appropriate for use as data-collection instruments.

Reliability Test

The reliability test results showed that Financial Literacy (X1), Investment Knowledge (X2), Minimum Investment Capital (X3), Technological Advancement (X4), and Investment Intention (Y) were all reliable, as evidenced by Cronbach's alpha values greater than 0.7. Therefore, the study could proceed to the subsequent stages of analysis.

Normality Test

TABLE II. RESULTS OF THE KOLMOGOROV-SMIRNOV NORMALITY TEST (K-S)

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	2.24133641
	Absolute	.082
Most Extreme Differences	Positive	.048
	Negative	-.082
Test Statistic		.082
Asymp. Sig. (2-tailed)		.097 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Table 2 shows that the Asymp. Sig. (2-tailed) value in the Kolmogorov–Smirnov test was 0.097. This indicates that the data were normally distributed because the significance value was greater than 0.05 ($0.097 \geq 0.05$). Therefore, the normality assumption of the regression model was satisfied.

Multicollinearity Test

TABLE III. RESULTS OF THE MULTICOLLINEARITY TEST

Model	Collinearity Statistics	
	Tolerance	VIF
Financial Literacy	.489	2.045
Investment Knowledge	.452	2.215
Technological Advancement	.377	2.652

a. Dependent Variable: Stock Investment Intention

Table 3 presents the multicollinearity test results. The VIF values for the three independent variables were 2.045, 2.215, and 2.652, respectively; all were below the specified VIF threshold of 10. Therefore, the regression model in this study showed no evidence of multicollinearity.

Heteroscedasticity Test

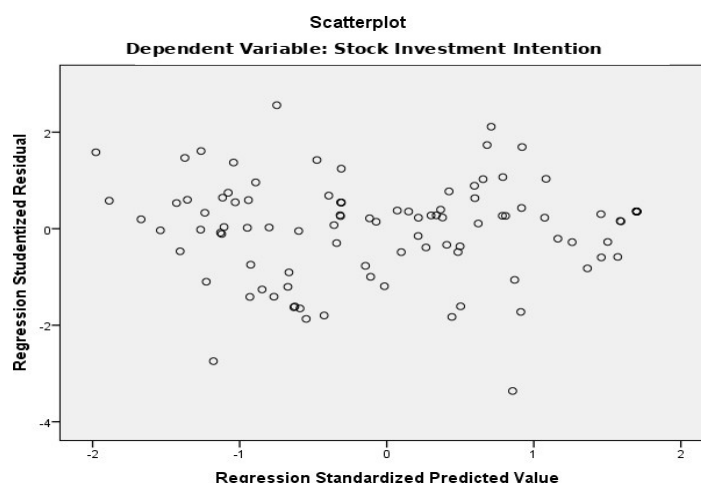


Figure 2. Results of the Heteroscedasticity Test

Figure 2 presents a scatterplot with no discernible regular pattern; the points are distributed above and below zero on the Y-axis. This indicates that the regression model showed no evidence of heteroscedasticity.

Multiple Linear Regression Analysis

TABLE IV. RESULTS OF THE MULTIPLE LINEAR REGRESSION ANALYSIS

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.185	1.748		-.678	.500
Financial Literacy	.013	.076	.013	.171	.865
Investment Knowledge	.431	.083	.397	5.184	.000
Technological Advancement	.143	.100	.119	1.426	.157

a. Dependent Variable: Stock Investment Intention

Based on Table 4, the regression equation is as follows:

$$\hat{Y} = -1.185 + 0.013X_1 + 0.431X_2 + 0.143X_4$$

The multiple regression equation above can be interpreted as follows:

1. The constant of -1.185 indicates that when financial literacy, investment knowledge, and technological advancement are equal to 0, Generation Z's stock investment intention in Lebaksiu District is -1.185.
2. The regression coefficient for financial literacy is 0.013 and has a positive sign. Therefore, when financial literacy increases while the other independent variables remain constant, Generation Z's stock investment intention in Lebaksiu District is expected to increase.
3. The regression coefficient for investment knowledge is 0.431 and has a positive sign. Therefore, when investment knowledge increases while the other independent variables remain constant, Generation Z's stock investment intention in Lebaksiu District is also expected to increase.
4. The regression coefficient for technological advancement is 0.143 and has a positive sign. Therefore, when technological advancement increases while the other independent variables remain constant, Generation Z's stock investment intention in Lebaksiu District is also expected to increase.

Partial Hypothesis Test (t-Test)

TABLE V. RESULTS OF THE PARTIAL HYPOTHESIS TEST (T-TEST)

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	-1.185	1.748		.500
	Financial Literacy	.013	.076	.013	.865
	Investment Knowledge	.431	.083	.397	.000
	Technological Advancement	.143	.100	.119	.157

a. Dependent Variable: Stock Investment Intention

Based on Table 5, the results can be interpreted as follows:

1. The partial test of the effect of financial literacy on stock investment intention, conducted using SPSS, produced a t-statistic of 0.171 and a significance value of 0.865. Thus, financial literacy had no effect on Generation Z's stock investment intention in Lebaksiu District. Therefore, H₀ was accepted.
2. The partial test of the effect of investment knowledge on stock investment intention, conducted using SPSS, produced a t-statistic of 5.184 and a significance value of 0.000. Thus, investment knowledge had a positive effect on Generation Z's stock investment intention in Lebaksiu District at the 1% significance level. Therefore, H₀ was rejected.
3. The partial test of the effect of technological advancement on stock investment intention, conducted using SPSS, produced a t-statistic of 1.426 and a significance value of 0.157. Thus, technological advancement had no effect on Generation Z's stock investment intention in Lebaksiu District. Therefore, H₀ was accepted.

Simultaneous Hypothesis Test (F-Test)

TABLE VI. RESULTS OF THE SIMULTANEOUS HYPOTHESIS TEST (F-TEST)

ANOVA ^a					
Model		Sum of Squares	df	Mean Square	Sig.
1	Regression	2180.095	4	545.024	.000 ^b
	Residual	732.728	95	7.713	
	Total	2912.822	99		

Dependent Variable: Stock Investment Intention

Table 6 shows an F-statistic of 70.644 and a significance value of 0.000. Therefore, financial literacy, investment knowledge, and technological advancement simultaneously had a positive effect on Generation Z's stock investment intention in Lebaksiu District at the 1% significance level.

Coefficient of Determination Analysis

TABLE VII. RESULTS OF THE COEFFICIENT OF DETERMINATION TEST

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865 ^a	.748	.738	2.77721

Predictors: (Constant), Technological Advancement, Financial Literacy,

Investment Knowledge, Minimum Investment Capital

Dependent Variable: Stock Investment Intention

Table 7 shows that the Adjusted R Square value was 0.738. Therefore, financial literacy, investment knowledge, and technological advancement explained 73.8% of the variation in Generation Z's stock investment intention in Lebaksiu District, while the remaining 26.2% was explained by other variables not examined in this study.

IV. CONCLUSIONS

Based on the results of the study, the following conclusions can be drawn:

1. Financial literacy had no effect on Generation Z's stock investment intention in Lebaksiu District.
2. Investment knowledge had a positive effect on Generation Z's stock investment intention in Lebaksiu District.
3. Technological advancement had no effect on Generation Z's stock investment intention in Lebaksiu District.
4. Financial literacy, investment knowledge, and technological advancement simultaneously had a positive effect on Generation Z's stock investment intention in Lebaksiu District.

Recommendations

Based on the findings of this study, the author offers the following recommendations:

1. Future researchers should expand the geographical coverage of data collection and increase the sample size so that the findings can be generalized more broadly across Tegal Regency.
2. The Indonesia Stock Exchange and securities companies are advised to collaborate with local governments,

conduct direct outreach in areas of Tegal Regency, and organize campaigns to increase Generation Z's intention to invest.

3. Members of Generation Z who intend to invest in stocks are advised to improve their financial literacy and deepen their investment knowledge in order to minimize investment risks.
- 4.

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