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# ANALYSIS OF THE IMPACT OF ENVIRONMENTAL, SOCIAL, & GOVERNANCE (ESG) DISCLOSURE AND PROFITABILITY ON FIRM VALUE (STUDY ON BANKING SECTOR COMPANIES LISTED ON THE IDX FROM 2017-2021)

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ABSTRACT

The capital market is an effective means to accelerate national development through longterm fundraising that is channeled to the productive sector. Companies that go public reflect their value through the price of the shares traded, thus attracting investors to invest capital in order to achieve maximum returns. This study focuses on the influence of company performance on stock returns as measured using financial ratios such as ROA, PER, QAI, DER, NPM, EPS, and EVA on telecommunications sector companies on the Indonesia Stock Exchange during the period 2017–2021. In addition, the implementation of ESG (Environmental, Social, and Governance)-based investments is also the main highlight in increasing company value in a sustainable manner. ESG encourages transparency and corporate sustainability in line with the Sustainable Development Goals (SDGs). The results show that the company's performance measured by various financial ratios has a diverse relationship with stock returns, indicating the need for an integrated strategy between financial performance and company sustainability to attract investors while increasing the company's competitiveness in the capital market.

**KEYWORDS** *Capital Markets, Corporate Performance, ESG (Environmental, Social, and Governance).* 

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# **INTRODUCTION**

The Capital Market is seen as one of the effective means to accelerate the development of the country. This is possible because the capital market is a vehicle that can mobilize long-term funds from the public to be channeled to productive sectors. For the capitalist community, the presence of the capital market is an additional alternative choice for investment. The purpose of investors investing

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their funds in securities is to get the maximum rate of return at certain risks or obtain certain returns at minimal risks.

ESG-based investments (Environmental, Social, and Governance) are starting to be widely applied by business people. This investment is an effort by the company to consider environmental, social, and governance aspects in running its business. With ESG investment, companies can run their business sustainably because they can overcome the impact and contribute in all three areas of ESG. Investors can also feel safer in investing. Recently, people have become more aware of the importance of environmental relevance and social well-being, as well as the role that businesses play in their operations. Global warming and the pandemic crisis are also an encouragement for companies to care about the surrounding environment. As a member of the United Nations, Indonesian companies also need to achieve the target of Sustainable Development Goal 12.6 by adopting sustainable practices and submitting sustainability reports to the public by 2030. To drive this target, the United Nations (UN) launched the Sustainable Stock Exchange Initiative to support listed companies to disclose their non-financial information, including Environmental, Social, and Governance (ESG) data in sustainability reports (SSE Initiative, 2018). It is hoped that by incorporating sustainable corporate practices and financial statements, efforts to increase the company's economic impact will be consistent with social and environmental values. Sustainability reporting functions similarly to a new disclosure model that focuses on unearthing potential value that applies to corporate policy (Buallay, 2019). In Indonesia itself, the Financial Services Authority (OJK) also supports the disclosure of ESG through POJK No. 51 of 2017 which implements regulations for Financial Services Institutions, Issuers, and Public Companies to make sustainable reporting.

The role of corporate value shows how public trust in a company and can influence investors' perception to invest in the company. A company that sells its shares to the public (go public), the value of its company can be reflected in the market price of the shares traded on the stock exchange. An increase in stock prices is synonymous with an increase in the prosperity of shareholders. For investors, the prospects of current and future companies are illustrated through good company values. The company's good value is positively reacted to by investors and creditors. Investors will choose to invest in companies with maximum company value because they can provide maximum prosperity. As for creditors, a good company value reflects the company's ability to pay debts.

According to several studies, maximizing the welfare of stakeholders will increase the value of the company in the long run (Jensen, 2002; Mohammad & Wasiuzzaman, 2021). The increase in corporate value is the result of ethical behavior and corporate responsibility aimed at improving the welfare of society. In order to increase its value, companies need to pay attention to non-financial performance such as social responsibility and environmental concern. This can have a positive impact on the company's survival in the future. Companies must improve their business models and sustainability reporting systems. One aspect of sustainability that focuses on sustainable development is development that meets today's needs without compromising the ability of future generations to meet their own needs. Therefore, sustainability reporting practices must result in management

thoughts and actions that pursue sustainability (Adiasih & Lianawati, 2019). In addition to carrying out social and environmental responsibilities, the implementation of good corporate governance is also an important factor in measuring the success rate of a company.

Environmental, Social, Governance (ESG) is a concept that prioritizes sustainable development/investment/business activities with three main factors, namely environmental, social, and corporate governance aspects. Environmental examines how businesses work and their impact on the environment; Social looks at how companies treat people, and concentrates on human rights, employee relationships & diversity, employment standards in the supply chain, health and safety; Governance examines how a company regulates itself. ESG is a company's obligation to improve social welfare in the long term that is fair and sustainable for stakeholders (Jamali et.al, 2017; Mohammad & Wasiuzzaman, 2021). ESG measurement aims to assess a company's performance that is not found in accounting data. The integration of ESG into a company's valuation model can improve non-financial indicators such as consumer satisfaction, market acceptance, lower debt costs and the social values it brings to stakeholders. Thus, ESG is an indicator that is able to include broader non-financial data on the environmental, social and governance performance of companies and can be used to evaluate a company's management capabilities as well as to support risk management (Tarmuji et al., 2016).

Companies that adopt sustainability strategies have good finances due to better stakeholder engagement and transparency (Cheng et al., 2014). Companies with good ESG performance will not only strive to optimize profits but also create solutions that improve the company's quality in order to achieve long-term competitive advantage. Companies with good ESG performance have knowledge of long-term strategic issues so managers manage with long-term goals. The company makes the long-term decisions necessary to ensure the success of their business to remain sustainable (Tarmuji et al., 2016). Engaging in ESG activities, companies can redefine their product offerings according to the needs of society with better environmental protection and quality of life.

Although ESG development is still in its infancy, its effects can be more pronounced when a severe crisis occurs. Coupled with the sharp economic and social downturn caused by the COVID-19 pandemic. When the COVID-19 pandemic affected capital market volatility in the first quarter of 2020, the financial condition of most companies deteriorated significantly (Hwang et al., 2021). So that this crisis causes unexpected public health shocks that have an impact on the global economy. This is evidenced by the decline in Global Gross Domestic Product in 2020 by 6.7% (El Khoury et al., 2022). Therefore, lately, companies have paid more attention and exerted more efforts in environmental, social and governance (ESG) management. ESG management is not a new management method, but an operating method based on a strategy for mutual growth with stakeholders.

In recent years, there has been an increase in the use of ESG information by stakeholders, especially investors. This is also driven by increasing investor interest both at the domestic and international levels (Mohammad & Wasiuzzaman, 2021). Investors believe that companies that implement sustainable practices, will have

good corporate value in the long term (Alsayegh et al., 2020; Behl et al., 2021). Business competition is also getting tighter with easier access, resulting in companies trying to be more advanced in implementing ESG (Olmedo et al., 2017; Adiasih & Lianawati, 2019). Companies belonging to sensitive industries such as companies that explore and distribute coal, oil and gas, seek to report ESG information with the aim of maintaining the legitimacy of the company and reducing the stigma attached to being an environmental polluter.

Sustainability information disclosure (ESG) is a means of transparency to investors and other stakeholders regarding the company's performance in dealing with sustainability issues. Globally, the trend of disclosure of ESG practices has expanded over the years as companies strive to stay sustainable. This information is very useful for investors and stakeholders to make strategic decisions appropriately and easily. ESG disclosure will enhance the company's competitive advantage, improve the company's image and reputation and improve future performance. The company's desire to implement higher ESG performance and disclosures can be attributed to its tendency to increase its competitive advantage through lower financing costs. According to Porter et al. (2019); Muhammad & Waisuzzaman (2021) ESG disclosure is related to competitive advantage as companies provide sustainable solutions to environmental and social problems. Therefore, a company's financial statements need to be balanced with reports that inform ESG and companies must realize that ESG disclosure is very important in describing the company's image and reputation.

Stakeholder Theory emphasizes that companies must provide returns to stakeholders from ESG investments (McWilliams & Siegel, 2000; Ruf et al., 2001; Saeidi et al., 2015). Therefore, according to stakeholder theory, the company's commitment to society through ESG awareness will provide sustainable benefits and profits. The theory of legitimacy states that management can influence the general public's perception of the company. The theory also states that companies disclose sustainability information to stakeholders to reaffirm the organization's commitment to society in supporting the stakeholder theory (Behl et al., 2021). According to the theory of legitimacy, ESG disclosure describes a company's commitment to society and generates sustainable profits. Sustainability reporting published by the company can be a form of the company's concern for environmental issues so that the company will be able to gain legitimacy in its operational environment. Therefore, some companies use ESG practices and their reports as a means of corporate imagery to gain a good reputation and legitimacy from stakeholders.

Financial statements are prepared with the intention of presenting periodic company progress reports. Financial statement information has a specific purpose, namely to provide information on economic resources, liabilities and share capital, provide comprehensive income information and provide cash flow information. Financial statements are expected to provide information related to the level of return on investment, risk, financial flexibility, and operational capabilities of the company (Harto, 2022). Investors invest money in the hope of getting a return on the investment while keeping their investment from decreasing in value (Pramuditha & Harto, 2022).

Decision makers, including investors in investing their funds, need various kinds of useful information to predict their investment results in the capital market. Information that is commonly used by investors or financiers is grouped into two things, namely technical information and fundamental information.

Fundamental information is obtained from the company's internal conditions and technical information is obtained from outside the company, such as economics and politics. The information obtained from the company's internal conditions that is commonly used is financial statements. Fundamental information is information related to the company's condition which is generally shown in financial statements which is one of the measures of the company's performance. The fundamental information of a company that is commonly used to predict stock prices is a variety of measures of a company's performance shown in financial statements. Based on financial statements, several fundamental factors can be known, including: financial ratios, cash flow, and performance measures associated with stock returns. Financial ratios are grouped into five types based on the scope or goals to be achieved, namely (profitability), activity ratios, and market ratios. Financial ratios that are commonly presented include profitability ratio, solvency ratio and market ratio with interim (quarterly) and annual report periods. The extent to which a company can affect the stock price in the capital market so that it can provide returns to capital owners and what variables can be used as indicators for companies to control stock prices. So that the company's goal to increase the company's value through increasing the value of shares traded in the capital market can be achieved.

In a company, performance is also very important, because company performance is an overview of the financial condition of a company that is analyzed with financial analysis tools, so that it can be known about the good or bad financial condition of a company that reflects work performance in a certain period. This is very important so that resources are used optimally in the face of environmental changes. Financial performance assessment is one of the ways that management can do in order to fulfill its obligations to investors (funders) and also to achieve the goals that have been set by the company.

Jogiyanto HM (1998) in Savitri (2012) stated that the information needed by investors in the capital market is not only fundamental information, but technical information. Fundamental information is obtained from the company's internal conditions and technical information is obtained from outside the company. Fundamental analysis is an analysis to calculate the intrinsic value of a company using the company's financial data, the intrinsic value of the company can be realized by the stock price. In addition to fundamental analysis, investors can conduct technical analysis. Technical analysis is an analysis that uses market data from a stock to determine the value of a stock (Jogiyanto, 2000) in Kusumo (2011).

Fundamental information is obtained from the company's internal conditions and technical information is obtained from outside the company, such as economics and politics. The information obtained from the company's internal conditions that is commonly used is financial statements.

Fundamental information is information related to the company's condition which is generally shown in financial statements which is one of the measures of the company's performance. The fundamental information of a company that is commonly used to predict stock prices is a variety of measures of a company's performance shown in financial statements. Based on financial statements, several fundamental factors can be known, including: financial ratios, cash flow, and performance measures associated with stock returns.

According to Robert Ang (1997), financial ratios are grouped into five types based on the scope or goals to be achieved, namely liquidity ratio, solvency ratio (leverage), profitability ratio (profitability), activity ratio, and market ratios (market ratios). Financial ratios that are commonly presented on the Jakarta Stock Exchange (JSX) Statistics include profitability ratio, solvency ratio and market ratio with interim report periods (quarterly) and annual reports.

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Since 1990, the business world has known a new tool to measure the financial performance of a company, this tool is known as Economic Value Added (EVA) (Julianti Sjarief and Aruna Wiryolukito, 2004). EVA was first introduced by George Bennet Stewart III and Joel M. Stern (1993), financial analysts in the consulting firm of Stern Stewart Management Service of New York, United States.

Since 1995, EVA (Economic Value Added) has been widely used in various large companies in the United States such as Coca Cola, AT&T, Quaker Oats and Brigs & Stratton. This method aids the development of financial disciplines, encourages the performance of managers so that they behave like owners and most importantly encourages increased profits for shareholders (Stewart III, 1995). The difference between EVA and other financial performance benchmarks is that EVA takes into account all capital costs, so that the practice of financial engineering with the aim of improving company performance cannot be carried out (Julianti Sjarief and Aruna Wirjolukito, 2004).

According to Dodd and Chen (1996) in the article "EVA: A New Panacea", with the development of Economic Value Added (EVA) and Market Value Added (MVA) as a measure of a company's financial performance, many companies have made positive statements about Economic Value Added (EVA) and Market Value Added (MVA) instruments, including:

- 1. Economic Value Added (EVA) and Market Value Added (MVA) have been chosen as measures of company performance with the belief that Economic Value Added (EVA) correlates between stock returns (Ball Corporation).
- 2. Compared to other performance measures such as Return on Capital (ROC), Return on Equity (ROE), Earning Per Share (EPS) and Cash Flow growth, Economic Value Added (EVA) statistically has a higher correlation in creating value for shareholders (Crane Corporation).

Performance appraisal using Economic Value Added (EVA) causes management attention in accordance with the interests of shareholders. With Economic Value Added (EVA), managers will think and act like shareholders, namely choosing investments that maximize the rate of return and maximize the level of capital costs, so that the value of the company can be maximized (Siddarta

Utama, 1997). Economic Value Added (EVA) will cause companies to pay more attention to the wisdom of their capital structure. Economic Value Added (EVA) takes into account the cost of capital on equity and recognizes that due to the higher risk faced by equity owners, the amount of capital cost of equity is higher than the level of cost of capital on debt. The use of Economic Value Added (EVA) can be used to identify activities or projects that provide a return higher than their capital cost. Whether or not these activities are profitable or not is determined by a positive or negative Economic Value Added (EVA).

According to the research of Lehn and Makhija (1996), it was found that Economic Value Added (EVA) has the strongest influence on stock returns. However, this result was opposed by Dodd and Chen (1998) where their first study showed that the Return On Asset (ROA) tool has the closest relationship with stock returns. Meanwhile, the second study by Dodd and Chen (1998) found that operating income has the most significant relationship with stock returns compared to Economic Value Added (EVA).

Fernandez researchers in Pradhono and Christiawan (2004) compared the correlation between the variables of economic profit, EVA, profit after tax, Return on Equity (ROE), Equity Cash Flow, interest rate, adjusted ROE and interest rate increase with the return received by shareholders. The results of his research show that the interest rate with returns has a high correlation.

Silalahi (1991) in his research stated that companies that can produce high ROA and are accompanied by an increase in ROA from period to period, then the company shows better performance. With better performance, the company's share price in the capital market is also increasing. Thus, ROA has a positive effect on stock returns. However, this theory is not fully supported by the reality that occurs in the capital market.

Some empirical evidence that examines the relationship or effect of ROA on stock returns still shows different results. Rina Trisnawati (1999) and Sparta (2000) showed that ROA has no significant effect on stock returns in the primary and secondary markets. Meanwhile, Syahib Natarsyah (2000) showed the results that ROA significantly affects stock returns in the secondary market.

The market ratio is indicated by the Price Earning Ratio (PER) which is the ratio between the stock price (price) to earnings (earnings). The higher the PER, the more expensive the stock price is considered too high or expensive by investors for its income. Jogiyanto, HM (1998) also stated that the variables that are commonly used to predict returns or securities prices include the Price Earning Ratio (PER). If the PER increases, the company's share price will also increase, so the company's stock return will also increase. In other words, PER has a positive effect on stock returns.

Several empirical evidences that examine the PER with stock price or return have been done by many previous researchers. Basu (1983) found evidence that the Price Earning Ratio (PER) affects stock returns. The empirical evidence is also supported by Barker (1999) finding that PER is significantly related to stock returns, especially for financial sector companies, but there is no relationship or effect of PER on stock prices or returns for manufacturing companies. According to Machfoedz (1994), the activity ratio (productivity) consists of 11 ratios, namely: *Inventory to working capital, cost of goods sold to inventory, sales to quick asset, sales to cash, sales to accounts receivable, cash flow to total asset, current asset to total asset, quick asset to inventory, inventory to sales, sales to total asset and working capital to total asset.* 

Of the 11 ratios, it is proven that only one variable is significant to predict changes in profit one year ahead, namely the Quick Asset to Inventory (QAI) variable.

According to Syahib Natarsyah (2000), DER has a significant negative influence on stock returns. This result is contrary to the results of research by Sparta (2000) and Indradewi (2004) which show that DER does not have a significant effect on stock returns, so further research is needed.

NPM is the ratio of net profit to sales. For investors or financiers, it is how much net profit the company earns, so investors can expect what level of return will be received.

EPS describes the level of profit earned by shareholders, where the profit level (per share) shows the company's performance, especially from other capabilities associated with the market. The results of the study from Dodd and Chen (1996) show that EPS has a positive effect on stock returns.

Based on the differences in the results of the above research, the formulation of the problem in this study is that there are still differences in research regarding factors that affect stock returns. Therefore, it is necessary to conduct research that connects the performance of companies measured from financial ratios (ROA, PER QAI, DER, NPM, EPS and EVA) to the return of shares in companies on the Indonesia Stock Exchange. In this thesis, the author took a sample of shares of telecommunications sector companies on the Indonesia Stock Exchange in the period 2017-2021.

## **RESEARCH METHOD**

The data collected for this study is secondary data obtained from the Jakarta Exchange Statistical Report and the Indonesia Capital Market Directory for the period 2017-2021 published by the Indonesia Stock Exchange. The number of companies selected as a sample is 14 companies. The data obtained in this study include stock prices at the year-end closing price and annual company financial statements. In this study, the data needed as research material is collected through the financial statements and annual closing prices of each company listed in the period 2017-2021.

# **RESULT AND DISCUSSION**

## **Regression Analysis**

The use of quantitative secondary data in this study leads to a quantitative method using multiple regression analysis tools because there is more than one independent variable. The dependent variable estimation technique that underlies the regression analysis is Ordinary Least Squares. The essence of the OLS method

is to estimate a regression line by minimizing the number of errors squared of each observation of the line (Imam Ghozali, 2005).

In the regression line equation, the one that acts as the dependent variable is the return of the stock, while the independent variable is represented by ROA, PER, QAI, DER, DTA, NPM, EPS and EVA. Multiple regression analysis tools were used to measure the influence of the combination of variables ROA, PER, QAI, DER, NPM, EPS and EVA.

Y=a+b1ROA+b2PER+b3QAI+b4DER+b5NPM+b6EPS+b7EVA+e Where:

Y	= Return on Shares
ROA	= Return On Asset
PER	= Per Earning Ratio
QAI	= Quick Asset to Inventory
DER	= Debt to Equity Ratio
NPM	= Net Profit Margin
EPS	= Earning Per Share
EVA	= Economic Value Added
B1 - B5	= Regression coefficient
e =error	

This research was conducted using a statistical analysis tool: Statistical Product and Service Sollution (SPSS) ver 11.0. The confidence level used in this regression is 90% in the partial correlation regression between the independent variable and the stock return.

# **Classical Assumption Test and Normality Test**

The sample will be processed to be used as a multi-regression equation using the SPSS ver 11.00 statistical program. To obtain the best variable model that affects the dependent variable, the classical assumption test is carried out as follows:

a. Multicollinearity Test

This test was carried out to find out if there was a high correlation between independent variables. To find out the high correlation between variables (*Multicollinearity*), the author uses VIF (*Variance Inflation Factors*) as the indicator. The formula of VIF is as follows:

$$VIF = \frac{1}{(1 - R\frac{2}{k})}$$
  
Dimana R  $\frac{2}{k}$  = Koefisien dari determinasi berganda ketika X<sub>k</sub>

regressed with other X variables in the model. The occurrence of this multicollinearity can be known by paying attention to the VIF resulting from the regression equation estimation activity. If the value is more than 5 (VIF>5), then the resulting model contains multicollinearity disorders. There are several ways to overcome this disorder, namely:

- 1) By reducing the independent variable that has a linear relationship with other variables;
- 2) By changing the shape of the model;
- 3) By selecting a new sample, since this disturbance is essentially a sample phenomenon;
- 4) By transforming the variables in each variable.

# b. Heteroscedasticity Test

This disorder results in inefficient estimation, because this estimation does not give the smallest variant even though this estimation is unbiased. To find out whether there is this disturbance, it can be seen from the output of the statistical analysis plot. If there is a certain pattern, such as existing dots forming a certain pattern that is regular (wavy, widening and then narrowing, then heteroscedasticity has occurred). If there is no clear pattern and the point spreads above and below the number 0, on the Y axis, then there is no heteroscedasticity.

To overcome this disorder, various ways can be done, namely by transforming the model, and by transforming logarithms. The selection of sample data by excluding outlier data can also be used to overcome this heteroscedasticity disorder (Santoso, 2002).

## c. Autocorrelation Test

The autocorrelation test aims to test whether in the linear regression model there is a correlation between the perturbrillator error in the t-period and the perturbation error in the t-1 period (previously). Autocorrelation of the state in which the disturbance variable in the previous period. Autocorrelation arises due to sequential obscenity over time related to each other, this is often found in time series data due to interference in the same individual or group in the following period. The method used to diagnose the existence of autocorrelation is the Durbin-Watson test (DW test). Decision-making on the existence or absence of autocorrelation (Imam Ghozali, 2005) is:

- 1) If the DW is located between the upper bound (du) and 4-du, then there is no autocorrelation.
- 2) When the DW is lower than the lower bound (Lower bound / dl) then there is a positive autocorrelation.
- 3) If the DW value is greater than 4-dl) then there is a negative autocorrelation.
- 4) If the value of DW is between (4-du) and between (dl-du) then the result cannot be concluded.

# d. Normality Test

This test is carried out to see whether the distribution of existing data is distributed normally or not. This test was carried out using histogram chart analysis and plot normal.

In the histogram analysis, if the normal graph of the plot shows that the data spreads around the diagonal line and follows the direction of the diagonal line, it can be concluded that the multiple linear regression model meets the assumption of normality. And it is said to have a normal distribution if the significance for the analyzed variable has a significance value (P-Value) greater than 0.05 (5%).

e. Hypothesis Testing

To test the proposed hypotheses, it is necessary to use regression analysis through the t-test and the F test

Regression is to determine the influence of independent variables on dependent variables, either partially or simultaneously, as well as to determine the magnitude of dominance of independent variables on dependent variables. The testing method for the proposed hypothesis is carried out by partial testing and simultaneous testing. The steps to test the hypothesis proposed in this study are as follows:

1) Statistical Test F

The F test is used to test the significance of the influence of the variables Return On Asset (ROA), Per Earning Ratio (PER), Quick Asset to Inventory (QAI), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Earning Per Share, and Economic Value Added (EVA) on the stock returns of telecommunication companies listed on the Indonesia Stock Exchange in the period 2017-2021 simultaneously. The steps taken are (Gujarati, 1999):

a) Formulating a hypothesis (Ha);

Ha accepted: means that there is a significant influence between independent variables on dependent variables simultaneously.

b) Determine the significance level of 0.05 (= 0.05).

c) Comparing Fcal with Ftable.

Nilai F<sub>hitung</sub> dapat dicari dengan rumus (Gujarati, 1999):

$$F_{-Hitung} = \underline{R^2 / k-1}$$

 $(1-R^2) / N - k)$ 

Where:

R2 = coefficient of Determination

k = the number of regression coefficients

N = many observations

- If Fcal < Ftable, the independent variables together have no effect on the dependent variable.
- When Fcal >Ftable, the independent variables together affect the dependent variable.

d) Based on Probability.

Using the probability value, Ha will be accepted if the probability is less than 0.05.

e) Determine the value of the determination coefficient, where this coefficient shows how much independent variables in the model used are able to explain the dependent variables.

2) Statistical Test t

The t-test is used to test the significance of the influence of the variables Return On Asset (ROA), Per Earning Ratio (PER), Quick Asset to Inventory (QAI), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Earning Per Share, and Economic Value Added (EVA) on the stock returns of telecommunication companies listed on the Indonesia Stock Exchange for the period 2017-2021 partially. Therefore, this t-test is used to test the hypothesis of Ha1, Ha2, Ha3, Ha4, Ha5, Ha6, Ha7. The testing steps carried out are as follows (Gujarati, 1999):

a) Formulating a hypothesis (Ha);

Ha accepted: means that there is a significant influence between independent variables on partial dependent variables.

- b) Determine the significance level ( $\alpha$ ) of 0.05.
- c) Comparing the tcount with the table, if the tcount is greater than the table, then Ha is accepted. The value of the calculation can be found with the formula (Gujarati, 1999):

t<sub>hitung</sub> = <u>Koefisien regresi</u> <u>Standar deviasi</u>

d) By probability

Ha will be accepted if the probability value is less than 0.05 ( $\alpha$ ).

e) Determine which independent variable has the most dominant influence on the dependent variable

## CONCLUSION

This study uses a quantitative approach with multiple regression analysis tools to test the relationship between several independent variables to the dependent variable, namely stock returns. This multiple regression method is based on the Ordinary Least Squares (OLS) approach, where the main goal is to minimize the number of squares of error in the regression line estimation. The independent variables used in this study include Return On Asset (ROA), Per Earning Ratio (PER), Quick Asset to Inventory (QAI), Debt to Equity Ratio (DER), Net Profit Margin (NPM), Earning Per Share (EPS), and Economic Value Added (EVA). These variables were selected to measure their simultaneous and partial influence on the stock returns of telecommunications companies listed on the Indonesia Stock Exchange during the period 2017 to 2021.

To ensure the validity of the regression model used, a series of classical assumption tests were carried out, including multicollinearity, heteroscedasticity, autocorrelation, and normality tests. The multicollinearity test was carried out to find out if there was a high correlation between independent variables that could interfere with the results of regression estimation. This test uses the Variance Inflation Factor (VIF) value as an indicator, with a tolerance limit of the VIF value  $\leq 5$ . If there is multicollinearity, steps such as the reduction of free variables or model transformation can be performed. Furthermore, the heteroscedasticity test aims to detect whether the disorder variable has an inconstant variant. The results of the heteroscedasticity test can be observed through the residual plot pattern; If

the pattern is irregular, the model is considered free of heteroscedasticity disorders. Autocorrelation tests are carried out to detect correlations between residuals in different periods. Autocorrelation diagnosis uses the Durbin-Watson (DW) test, where the results determine whether there is a positive, negative, or no autocorrelation. Finally, normality tests are performed to ensure that the residuals are normally distributed, using histogram graph analysis and plot normals as indicators.

Hypothesis testing is carried out through the F test and the t test to identify the simultaneous and partial influence of independent variables on stock returns. The F test is used to test the influence as a whole or simultaneously, with an alternative hypothesis (Ha) accepted if the probability value is less than 0.05. If Fcal is greater than Ftable, then the independent variables together have a significant effect on the dependent variable. In addition, the t-test was used to test the influence of each independent variable partially on the dependent variable. The alternative hypothesis (Ha) is accepted if the calculation is greater than the table or the probability < 0.05. Through this test, it can be known which independent variable has the most dominant influence on stock returns.

The determination coefficient  $(R^2)$  is used to measure how much an independent variable can explain the variation in the dependent variable. A high  $R^2$  value indicates that the model used is able to explain the relationship well. This study also uses SPSS software version 11.0 as a data analysis tool, with a confidence level of 90%. Thus, the results of this analysis can provide a clear picture of the influence of financial variables on the stock performance of telecommunication companies in Indonesia, as well as provide significant implications for investors in making investment decisions

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