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Manufacturing Firm Value Drivers through Return on Assets, Return on Equity and Earning per Shares

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Abstract

The company's goal is to create value. Therefore, it is important for companies to know the source of the company's value creation. This study connects the independent factors that affect firm value, namely Return On Equity, Return On Assets, and Earning Per Shares. This research used a sample of 30 companies. The samples used in this research are manufacturing companies listed on the Indonesia Stock Exchange for the period 2017-2019 with the sampling technique using purposive sampling. The results indicated that the return on assets has no significant effect on share prices, return on equity has no significant effect on share prices, EPS has an significant effect on share prices and simultaneously return on assets, return on equity and earnings per share has an significant effect on share prices.

Keywords: *return on asset (ROA); return on equity (ROE); earnings per share (EPS); and stock price.*

Abstrak

Tujuan perusahaan adalah untuk menciptakan nilai. Oleh karena itu, penting bagi perusahaan untuk mengetahui sumber penciptaan nilai perusahaan. Penelitian ini menghubungkan faktor-faktor independen yang mempengaruhi nilai perusahaan, yaitu *return on equity, return on assets,* dan *earning per shares*. Penelitian ini menggunakan sampel sebanyak 30 perusahaan. Sampel yang digunakan dalam penelitian ini adalah perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia periode 2017-2019. Teknik pengambilan sampel *purposive sampling* telah digunakan. Hasil penelitian menunjukkan bahwa *return on assets* tidak berpengaruh signifikan terhadap harga saham, *return on equity* tidak berpengaruh signifikan terhadap harga saham, EPS berpengaruh signifikan terhadap harga saham dan secara simultan *return on assets, return on equity* dan *earning per share* memiliki pengaruh yang signifikan terhadap harga saham.

Kata kunci: *return on asset (ROA); return on equity (ROE); earning per share (EPS); dan harga saham.*

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INTRODUCTION

The Indonesian capital market is a means for companies to be able to obtain alternative funding. The existence of this capital market provides alternatives, among others, in terms of funding liquidity and the amount of cost of capital. By seeking funding in the capital market, companies can share their equity and thereby reduce dependence on debt financing. Another positive side is that funding from the capital market can provide a cheaper cost of capital because banks will immediately provide returns to investors who own the funds.

To be able to successfully raise funds in the capital market, companies need to demonstrate their potential to create value. From the investor side, one of the popular methods that can be used to measure value is to use the Du Pont ratio or what is also often referred to as Du Pont Return On Equity. The Du Pont ratio was developed by an employee at the Du Pont Chemical company in America to measure how the company can create value. The logic of this equation is that the more the returns obtained by the equity owners, the better the condition of the equity owners.

To be able to assess value creation, this study uses not only one value creation indicator but also several alternative company value driver indicators, namely Return On Assets and Earning Per Shares. These three value drivers are the same as linking the company's performance with the value created by the company and subsequently received by equity owners.

Company valuation cannot be separated from the company's fundamentals. The market in certain conditions can be over-optimistic and in other conditions it can be over-pessimistic. However, in the long term, the value of the company will be corrected to its fundamental value. This means that the undervalued company will increase in value and the overvalued company will decrease to its fair value (Miciula et al, 2020).

The phenomenon to be investigated in this research is how value creation in manufacturing companies in 2017-2019. This period was chosen to describe the latest trends that occur in manufacturing companies. Because the progress of the manufacturing industry cannot be separated from the development of infrastructure that supports manufacturing companies. In 2017 to 2019 many strategic infrastructures have been completed by the government such as toll roads, expansion of industrial estates to expansion of ports. In addition, the limitation until 2019 is because in 2020 there has been a Covid 19 disaster that has caused disruption to the economy so that if the data is included it will cause distortion in the analysis.

The formulation of the problem in this study is whether the value of the company can be seen from the indicators of value creation such as Return On Equity, Return On Assets and Earning Per Shares. Meanwhile, the hypothesis of this research is that each value driver indicator in the form of financial ratios affects firm value. Another hypothesis is that the model built in this study can explain value creation in manufacturing companies.

The benefit of this research for investors is to determine what fundamental ratios can be used quickly to determine which manufacturing companies are worthy of investment. By providing a rule of thumb for investors, investors can do a quick screening to determine a group of companies that have the potential for investment. Thus, investors will save time and can focus on deeper analysis of companies that have potential. Meanwhile, in terms of management, management knows the expectations of investors. Thus, management can take actions in accordance with investor expectations which will further increase the value of the company.

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LITERATURE REVIEW

Stakeholders

Companies do not operate in a vacuum. This means that the company has various parties who have different interests in the company. However, there is agreement that increasing the value of the company is good for all parties, both for management, for lenders and for investors. Therefore, value creation is something that companies need to pursue in order to create prosperity for all stakeholders (Onaka & Wickrama, 2020).

Capital market

The capital market is an alternative for companies to seek funding. The capital market has a privilege because the capital market acts as an intermediary between companies as parties that need capital and investors who have capital. The existence of the capital market has a role in improving the economy. The banking economic system has limitations because banks act as intermediaries in allocating funding. Banks will have a preference in channeling funds. These preferences include what level of risk the bank can tolerate and how big the company's ability to absorb funding. This is different from the capital market where investors can choose their own level of risk preference that they are willing to bear. In addition, investors will determine how much funding can be given to a company (Bustamante et al, 2021).

Another function of the capital market is the valuation function. This means that with the number of investors who analyze the company and there is a dynamic buying and selling of company equity, it will affect the company's valuation. Every decision taken by management will be reflected in the value of the company in the capital market. This is because investors react to changes in the company's future performance due to management decisions. The existence of this reaction makes the value of the company in the capital market should reflect the intrinsic value of the company.

Stock price

The share price represents the value of the equity. When the company listed its initial shares, the company sold part of the equity. This price determination is carried out by the underwriter in collaboration with public accounting firms, appraisals and various other financial professionals. After being listed, then the value of the company is determined by investors in the market. Therefore, after the initial listing of shares, there are company shares that go down and there are company shares that go up even more. When investors see an increase in the company, investors will buy company shares in the market. However, investors who buy initial shares will not be willing to release the existing stock prices. As a result, investors in the secondary market will bid at a higher price so that the price in the market becomes higher. The opposite can happen, namely when investors who hold the company's initial shares feel that the company's prospects will decline in the future, the investors who own the initial shares will sell their shares. However, investors in the secondary market do not want to buy at the initial share price, forcing investors who have initial shares to sell at a lower price. Consequently, when the company's prospects decline, the stock price in the secondary market will also fall.

Financial statements

Financial statements are reports that contain information on company activities in monetary units. Along with the development of the company, the company began to involve outside

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parties, including banks, lenders and investors. When there are external parties who are interested and not involved in the day-to-day operations of the company, these parties need a report to monitor management performance. Herein lies the importance of financial statements. To ensure that financial statements are prepared in accordance with applicable reporting standards, there is a third party that provides assurance, namely a public accountant. The hope is that these financial statements can reflect how the company operates (Robinson, 2020).

From the data in the financial statements, it can be processed into financial ratios. Financial ratios are a comparison between the accounts in the financial statements to produce a comparison that can be compared either with the company's past performance or the performance of other companies. Financial ratios relate at least two data in financial statements. Thus financial ratios can provide more useful information than financial statement data because they are able to connect financial data.

This study uses three types of ratios, namely Return On Assets, Return On Equity and Earning Per Share. Below is a formula for each of these ratios:

Return on assets (ROA)

Return on asset is the ratio that connects the assets owned by the company and the company's profits. The ratio shows the management's ability to manage assets owned by the company. The higher the ROA number indicates that management can maximize the utility of the company's assets. This ratio is the ability to manage asset management. Good management will maximize all the resources owned by the company so that there are no idle assets. The better the managerial ability of the company, the higher the value of the company.

$$\text{Return on Assets} = \frac{\text{Net profit after tax}}{\text{Total Assets}}$$

Return on equity (ROE)

Return on equity relates the profit that the company can generate and the value of equity. The higher the ROE, the more returns will be owned by investors. The higher the returns owned by investors, the more investors will enjoy the added value generated by the company. The difference between this ratio and the Return On Assets ratio is that this ratio directly links management's ability to generate profits with the returns enjoyed by investors. It could be that management is able to maximize the company from an operational perspective, but when the company cannot manage the company's funding side, investors will not get optimal returns.

$$\text{Return on Equity} = \frac{\text{Net profit after tax}}{\text{Total Equity}}$$

Earnings per share (EPS)

The earning per share ratio relates the company's earning ability to the number of shares outstanding. This measurement serves to quickly see how management's ability to generate income from period to period. This ratio does not show the company's profits directly but can provide an indicator for investors to see the company's trends over time. Another benefit of this ratio is that it can be quickly used to compare the profitability of one company to another.

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$$\text{Earnings per Share} = \frac{\text{Net profit after tax}}{\text{Number of Share Outstanding}}$$

Hypothesis

This research departs from previous research conducted by Simorangkir (2019), which shows that firm value in manufacturing companies is influenced by certain unique factors. Meanwhile research from Acikgoz and Kilic (2021) found that even Return On Equity can be used for various companies ranging from companies that have large amounts of fixed assets to companies with intangible assets. The research shows that it can also be used in technology companies where most of the assets are intangible assets.

H_1: Return on Assets (ROA) impacts on the stock price
H_2: Return on Equity (ROE) positively impacts on the stock price
H_3: Earnings per Share (EPS) positively impacts on the stock price

Research Framework

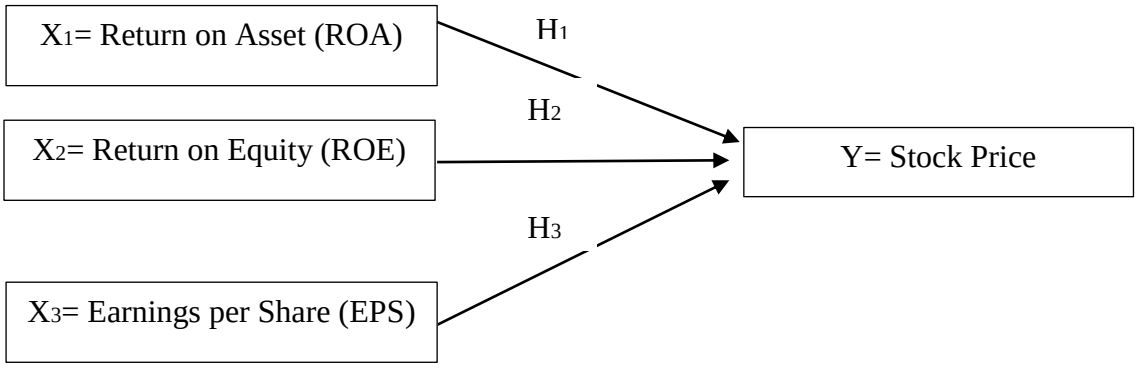

Figure 1. Research Framework

RESEARCH METHOD

This research is a quantitative research. Quantitative methods used are financial statement analysis methods and statistical methods. To be able to use the method of analyzing financial statements, it is necessary to collect financial report data first. Financial report data comes from the company's financial statements published on the company's official website and can also be downloaded through the Indonesia Stock Exchange page. Thus the data used is secondary data because the researcher assumes that the existing data already has the reliability and validity to be used as research raw materials. This reliability and validity is based on the opinion of the public accountant on the financial statements. When the public accountant auditing the company gives an unqualified opinion, the researcher will assume that the data used is reliable and valid.

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Descriptive Statistics

The data is then processed into financial ratios which are then processed using statistical methods. The statistical method used is the multiple linear regression method. The first step of statistical processing is to see the normality of the data by using descriptive statistics. After that, the data was processed using multiple linear regression. The model that was built was then checked whether it was appropriate and there was no heteroscedasticity, autocorrelation and multicollinearity. When the model is appropriate, the regression results are interpreted economically.

RESULTS AND DISCUSSION

Statistic Descriptive Analysis

Table 1. Descriptive statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Stock price	90	1.31	2.21	1.7700	.18592
EPS	90	.00	13.05	1.4718	2.44270
ROA	90	.00	.73	.1881	.12520
ROE	90	.03	1.16	.2516	.19488
Valid N (listwise)	90				

Source : The researcher data processing with SPSS 25

Based on the descriptive table above, for the Stock price the highest value of 2.21 and the lowest value 1.31 with an average value is 1.7700 and the standard deviation value is 0.18592. Meanwhile, for Earnings per share has the highest value is 13.05 and the lowest value is -00 with a mean of 1.4718 and a standard deviation of 2.44270. For Return on assets the minimum value is -00, the maximum value 0.73, mean value is -1881 and standard deviation value is 0.12520. Therefore, Return on Equity a total maximum value 1.16 and a lowest value of -0.3 with a mean value is 0.2516 and a standard deviation of 0.19488.

Normality Test

Based on the Kolmogrov-Smirnov test shown in the table above, where the value of profitability or Asymp.Sig (2-tailed) is 0.200 which means it is greater than 0.05. So it can be concluded that the research data is normally distributed.

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Multicollinearity Test

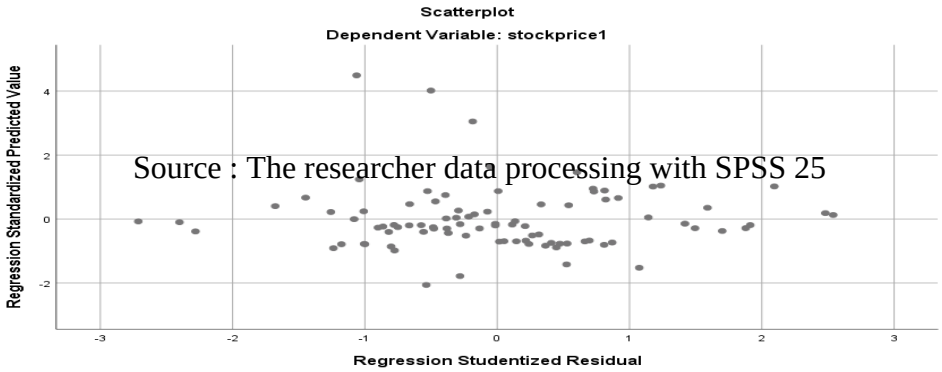
Table 2. Multicollinearity test

Variable	Tolerance	VIF	Result Assumption
EPS	.999	1.001	Multicollinearity does not occur
ROA	.128	7.829	Multicollinearity does not occur
ROE	.128	7.832	Multicollinearity does not occur

Source: The results of SPSS data processing

The data in this analysis does not have multicollinearity, and there is no relationship between the independent variables, as seen in the table above. The Variance Inflation Factor (VIF) value for all variables in the range of 1 to 10. Return on Assets (ROA) in the amount 7,829, Earnings per Share (EPS) in the amount 1,001, and Return on Equity (ROE) in the amount 7,832. Thus, can be concluded in this research there is no symptoms or multicollinearity problems.

Heteroscedasticity test



Source : The researcher data processing with SPSS 25

Figure 2. Heteroscedasticity test

Based on the results of the Scatterplot graph above, it shows that the data in this study does not have a Heteroscedasticity problem, because the data is spread both below the number 0 and above the number 0 and there is no certain pattern in its distribution.

Autocorrelation Test

Table 3. Autocorrelation test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.442[a]	.195	.167	.16985	.700

Source : The researcher data processing with SPSS 25

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Based on the results of Durbin Watson test in the table above, it can be seen that the Durbin Watson test value is 0.700, where the number is between -2 to +2 so it can be concluded that the data in this study are free from autocorrelation.

T-Test

Table 4. t-test

Variable	T	Std. Error	Sig.
(Constant)	49.598	.035	.000
ROA	-.363	.402	.717
ROE	1.710	.258	.091
EPS	2.565	.007	.012

Source: The results of SPSS data processing

The t test of the ROA variable shows that the ROA variable has a t test value greater than 0.05. This means that statistically there is no significant relationship between ROA and firm value. Hypothesis testing the effect of Return on Equity (ROE) on stock prices. The t test of the ROE variable shows that the ROE variable has a significantly weak relationship with firm value. This study uses a significance level of five percent so that the results of the t test are considered insignificant. But if the significance level is lowered to the ten percent level, ROE actually still has an influence on firm value. Hypothesis testing the effect of Earnings per Share (EPS) on stock prices. The t test for the EPS variable shows that the EPS variable has a significant positive relationship with firm value. The significance level used in this study was five percent, but the results of the t test showed that the significance value was at a level above two percent. This means that the EPS variable has a high significant effect on firm value.

F-Test

Table 5. F-test

Model	Sum of Square	Df	Mean Square	F	Sig.
Regression	.601	3	.200	6.962	.000
Residual	2.475	86	.029		
Total	3.076	89			

Source: The results of SPSS data processing

To test the suitability of the model used Anova test or Analysis of Variance. The ANOVA test results show the probability value of the model suitability is above one percent or very suitable. Thus the model built in this study is very appropriate. So it can be said that the independent variable can explain the dependent variable. However, this figure does not indicate how much of the dependent variable can be explained by the independent variable. Therefore, another analysis is needed, namely by using the Coefficient of Determination analysis.

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Coefficient of Determination (R2)

Table 6. Coefficient of determination

Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.402	.16985	.1700

Source: The results of SPSS data processing

The coefficient of determination shows that the R Square value shows the number 0.442, which means that the independent variable can only explain less than half of the factors that affect the dependent variable. Or in other words, more than half of the factors that affect the value of the dependent variable cannot be explained by the model.

Multiple linear regression

Table 7. Multiple linear

Model	B	Std. Error	T	Sig.
Constant	1.174	.035	49.598	.000
EPS	-.019	.007	-2.565	.012
ROA	-.146	.402	-.363	.717
ROE	-442	.258	1.710	.091

Source: The results of SPSS data processing

Then the regression equation formula that can be arranged as follows:

$$Y = 1.714 – 0.146X1 + 0.442X2 – 0.019X3$$

The dependent variable is the stock price obtained for 1.714, and the independent variable is considered to be constant (fixed). The regression coefficient value of the ROA variable (X1) is -0.146, this suggests that the ROA has no significant influence on the variable stock price. The ROE variable (X2) has a regression coefficient of 0.442, indicating that the variable ROE has a weak positive impact on the stock price variable. The EPS variable regression coefficient (X3) is 0.019, indicating that the EPS variable has a significant positive effect on the stock price variable.

Discussions

The results of the statistical test show that the model can explain moderately that the firm value can be explained by the profitability variable. There are several ways to look at this. The first is that the model has not been able to explain the factors that affect firm value. The two values of the company are not solely derived from the company's ability to create profits. Third, there are two variables in this study that have a significant relationship, both significant and strong. Thus, the variables in this study can be used by investors to conduct an initial screening of companies selected by investors in the manufacturing industry. Fourth is that profitability remains the main factor driving firm value.

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The results of this study are consistent with the research conducted by Sudiyatno et al (2020) which found that profitability has a significant influence on firm value. The difference is that this study focuses on three main factors of profitability indicators and finds that two independent variables, namely Return On Equity and Earning Per Share, are the main factors driving firm value.

The contribution of this research is to provide a ratio that can be used by investors to conduct initial screening when investing in the capital market, especially for the manufacturing industry, namely the Return On Equity and Earning Per Shares variables. Although these two variables are variables that have existed and have been used for a long time, these variables have not lost their relevance. This is evidenced by this study, namely the high level of significance of the profitability variable and the ability of the model to use profitability ratios to explain firm value

CONCLUSION AND RECOMMENDATION

Conclusion

The results of this study indicate that the model has a moderate ability to explain how the profitability ratio affects firm value. This means that there are still other ratios that can be added to analyze the company's performance. But on the other hand, the ratios in this study are proven to be significantly used to measure firm value. Of the three ratios, there are two ratios that have a significant effect, namely Return On Equity and Earning Per Share. This means that only by using these two ratios an investor can see most of the factors that affect the value of the company. The findings of this study are limited by the manufacturing industry and cannot be applied to other industries. In addition, the selection of the time which is relatively close to the present is expected to provide relevant information. But on the other hand, to increase the reliability, it is necessary to add a data set with a longer period.

Recommendation

This study found that two profitability variables, namely Return On Equity and Earning Per Share, can explain firm value. In the future, other financial ratios can be added to improve the predictive ability of the model. In addition, the use of ratios in terms of funding and operations can provide a more complete dimension to view the company from various sides and not only its ability to generate profits. However, there are other factors besides profit that determine the value of the company as reflected in this study.

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