



The Determinant Factors of Stock Prices of Manufacturing Companies Listed on the IDX

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ABSTRACT

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This study examines determinant factors of stock prices of manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2014 to 2020. The determinant factors are Economic Value Added (EVA), Market Value Added (MVA), and Earnings Per Share (EPS). The population of this study was 132 companies, and nine companies met the criteria as research samples. The sample selection method in this study used purposive sampling, using secondary data obtained from the official website of the Indonesia Stock Exchange. The data were analyzed using Multiple Linear Regression analysis, the Classical Assumption Test, and the Coefficient of Determination. The results showed: (1) EVA, MVA, and EPS simultaneously have a significant effect on the company's stock price; (2) EVA and EPS partially have a positive effect on the company's stock price; and (3) MVA does not partially affect the company's stock price. The results of this study provide recommendations for investors to consider the company's EVA and EPS values in making stock investment decisions.

Keywords:

Manufacturing Company; Economic Value Added; Market Value Added; Earnings Per Share; Stock price.

1. INTRODUCTION

In December 2020, data on the Indonesia Stock Exchange showed that the number of Single Investor Identification increased by 48.82% from the previous 1,212,930 SID (www.idx.co.id, 2020). The increase in the number of stock investors has impacted increasing state revenues and growing the domestic economy. Investors who invest in stocks should need to study issuers that can generate income in the future. Investors can use stock price data to assess a company's financial ability.

In investing, investors should predict the issuer's financial performance by using fundamental analysis, especially financial ratios (Subramanyam, 2017). Financial ratio analysis consists of five ratios (Fraser & Aileen, 2018), including liquidity, activity, debt, profitability, and market. Investors often use these five ratios to analyze a company's financial condition. However, these five ratios only consider financial aspects. Other fundamental analysis alternatives can be used to estimate a company's financial performance, namely Economic Value Added (EVA) and Market Value Added (MVA) analysis. Both analyzes consider market aspects and capital costs.

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This study examined the determinants of the stock prices of manufacturing sector companies listed on the IDX from 2014 to 2020. The determinants are EVA, MVA, and EPS. Manufacturing sector companies were chosen in this study because of several 731 companies that went public and were listed on the Indonesia Stock Exchange (IDX) in December 2019 (www.idx.co.id, 2021). It is the manufacturing sector industry that is attractive to investors. The attractiveness of this industry is supported by data from the Investment Coordinating Board which shows an increase in the percentage of investment realization in the manufacturing sector in 2020 compared to the previous year. In addition, the Central Statistics Agency (BPS) also displays data that the manufacturing sector is the sector that dominates the economy in Indonesia by 19.88% in 2020.

The researcher's motivation for conducting this study was, first, an increase in the number of SIDs and an increase in the total percentage of investment in the manufacturing sector, making it attractive for investigation. Second, only a few researchers use EVA and MVA analysis to determine the company's financial condition by considering market aspects and capital costs as investors' tools in making investment decisions on stocks. Third, research results on the determinants of stock prices in manufacturing sector companies are still controversial, especially EVA, MVA, and EPS.

II. LITERATURE REVIEW

Economic Value Added (EVA) is a company's economic profit for a certain period and considers all costs of capital originating from debt and equity (Brigham & Houston, 2018). A positive EVA value indicates that the net profit derived from the company's operations is greater than the cost of capital issued. This positive EVA value convinces investors that the company is capable of generating profits in the future. Subsequently, it can increase the demand for and price of the company's shares in the capital market. Previous research on the effect of EVA on stock prices showed that EVA has a significant effect on stock prices (Riska & Nurhayati, 2015). These findings contradict the results of research by Faitullah (2016) and Pernamasari (2020), who found that EVA has no significant effect on stock prices.

Market Value Added (MVA) is the difference between the market value of equity and the company's book value (Brigham & Houston, 2018). MVA is calculated by multiplying the share price in the capital market by the number of outstanding shares. In general, investors tend to trust companies with high MVA values. Investor confidence in the high MVA value is because the company can generate added value from the capital invested in the company and subsequently increase the demand for shares and share prices in the capital market. Previous research conducted by Puspita et al. (2015) showed that MVA positively affects stock prices. Meanwhile, research conducted by Faitullah (2016), Masyrufi et al. (2020), and Pernamasari (2020) obtained findings that MVA partially did not affect stock prices.

The profitability ratio is a ratio to measure a company's ability to generate profits (Prasetyo & Yuniati, 2020). This study uses the Earnings Per Share (EPS) ratio to evaluate a company's ability to generate profits. Tandelilin (2010) in (Khairani, 2016) explains that EPS is essential information for estimating profits to be obtained by investors in the future. Previous research on EPS conducted by Faitullah (2016) and Pernamasari (2020) shows that EPS significantly influences stock prices. This finding contradicts Khairani's (2016) research, which found that EPS does not affect stock prices.

Investment is defined as delaying current consumption activities for a certain period and placing financial resources into productive assets (Hartono, 2017). Bodie et al. (2010) argue that investment is a current commitment of money or other resources expected to generate future benefits. Investors can invest their wealth in the money market or the capital market. According to Bodie et al. (2010), the money market consists of short-term and low-risk securities, such as T-bills and deposits. While the capital market consists of long-term and high-risk instruments, one of which is stocks. According to Azis et al. (2015), shares are a form of individual or institutional ownership of the amount of capital invested in a company.

According to Fahmi (2015), stock prices are influenced by macro and microeconomic conditions, internal company conditions, company performance, systematic risk, and the psychological condition of the capital market. Alam and Oetomo (2017) emphasized that company Return on Equity (ROE), Economic Value Added (EVA), and Market Value Added (MVA) partially affect stock prices.

Economic Value Added, Market Value Added, Earnings Per Share, and Share Price

Economic profit or Economic Value Added (EVA) is the difference between Net Operating Profit After Tax (NOPAT) and the cost of capital (Brigham & Houston, 2018). Hanafi (2016) argues that EVA is a performance measurement that combines the acquisition of the company's added value and the costs incurred to obtain this added value. NOPAT is calculated by subtracting a company's operating income from taxes.

Meanwhile, the cost of capital is calculated by multiplying the invested capital by the Weighted Average Cost Of Capital (WACC) - a calculation used to determine the amount the company must return for funds or capital originating from debt and equity. The EVA calculation formula, according to Fatin (2017), is as follows:

$$EVA = NOPAT - \text{Cost of Capital}$$

Where:

$$NOPAT = \text{Operating Profit} - \text{Tax}$$

$$\text{Cost of Capital} = \text{Invested Capital} \times WACC$$

$$\text{Invested Capital} = (\text{Total of Debt and Equity} - \text{Total of Short-Term Debt})$$

$$WACC = \{ (D \times r_d) (1 - \text{Tax}) + (E \times r_e) \}$$

Where:

$$D = \frac{\text{Percentage of Debt in Capital Structure}}{\text{Structure}}$$

$$= \frac{\text{Total Debt}}{\text{Total of Debt and Equity}} \times 100\%$$

$$r_d = \text{Cost of Debt}$$

$$= \frac{\text{Total Interest Cost Incurred}}{\text{Total Long-Term Debt}} \times 100\%$$

$$E = \frac{\text{Percentage of Equity in Capital Structure}}{\text{Structure}}$$

$$= \frac{\text{Total Equity}}{\text{Total of Debt and Equity}} \times 100\%$$

$$r_e = \text{Cost of Equity}$$

$$= \frac{\text{Profit After Tax}}{\text{Total Equity}} \times 100\%$$

According to Reilly and Brown (2012), Market Value-Added (MVA) measures a company's external performance. Other sources argue that MVA is defined as the difference between the company's market value and the capital submitted by the company owner (Husnan & Pudjiastuti, 2012). The market value is calculated by multiplying the number of outstanding shares by the market price. If the market value exceeds the capital submitted by the

owner (positive MVA value), then the company can be said to be a business entity with good performance. MVA calculation, according to Husnan and Pudjiastuti (2012), is as follows:

$$\text{MVA} = \text{Market Value of Equity} - \text{Invested Capital}$$

Where:

$$\text{Market Value of Equity} = \text{Total Outstanding Shares} \times \text{Share Price}$$

$$\text{MVA} = (\text{Number of outstanding shares} \times \text{Share price}) - \text{Total Equity}$$

Measuring a company's ability to generate profits needs to be done by investors (Prasetyo & Yuniati, 2020). Investors can use profitability ratios to measure a company's ability to generate profits, and in this study, the profitability ratio used is the Earnings Per Share (EPS) ratio. Earnings Per Share (EPS) reflects the company's profit for each outstanding share (Gitman, 2012). Investors make investment decisions to obtain future profits, and the acquisition of net income is a factor for estimating the profits that investors will get. Therefore, most investors use EPS as a reference before buying shares (Mowen et al., 2014). EPS calculations, according to Mowen et al. (2014), are as follows:

$$\text{EPS} = \frac{\text{Net Incomes} - \text{Preferred Stock Dividends}}{\text{Average Common Shares}}$$

A positive EVA value indicates that the company's business activities are going well. The business of the company that is running well is due to operating profit that exceeds the cost of capital. Meanwhile, a positive MVA value indicates that the company can generate added value from the capital invested by the owner in the company. Therefore, investors tend to believe in companies with positive EVA and MVA values because the company is expected to be able to generate profits for investors in the future. In addition, companies with positive EPS also convince investors that the company can generate profits in the future. The results of research conducted by Puspita et al. (2015) found that EVA and MVA simultaneously affect stock prices.

H1: Economic Value Added, Market Value Added, and Earnings Per Share simultaneously affect stock prices.

Economic Value Added (EVA) measures a company's ability to generate added value by reducing capital costs incurred to carry out business activities. The higher the EVA value, the demand for shares will increase because investors tend to believe in companies that can generate added value from the cost of capital and will further increase share prices in the capital market. Previous research by Riska & Nurhayati (2015) found that EVA positively affects stock prices.

H2: Economic Value Added has a positive effect on stock prices.

Market Value Added (MVA) is the difference between the market value of equity and the capital submitted by the company owner. A high MVA value indicates that the company's business activities are going well to generate added value from the capital submitted by the company owner. The added value will increase demand for company shares, and share prices will also increase in the capital market. Previous research by Puspita et al. (2015) found that MVA positively affects stock prices.

H3: Market Value Added has a positive effect on stock prices.

Earnings Per Share (EPS) describes the profit earned on each share distributed. Positive EPS will increase investor confidence in the company's ability to generate profits. Therefore, high EPS will also increase share prices in the capital market. Previous research conducted by Faitullah (2016) showed that EPS positively affects stock prices.

H4: Earnings Per Share has a positive effect on stock prices.

III. METHOD

This study observes manufacturing companies that have met several predetermined criteria. These criteria include: (1) being a manufacturing company listed on the Indonesia Stock Exchange for the period 2014-2020, (2) consistently publishing financial reports for the period 2014 to 2020, and (3) having component data for calculating EVA, MVA, and EPS for the 2014-2020 period.

The independent variables in this study are EVA, MVA, and EPS. Economic Value Added is a measure of a company's performance in generating added value by reducing the cost of capital from Net Operating Profit After Tax (NOPAT). Market Value Added is the difference between the market value of equity and capital submitted by the owner (equity). The market value of equity is calculated by multiplying the market price of the shares by the number of shares outstanding. Earnings Per Share describes the profit generated from each outstanding Share. EPS is calculated by dividing net income by the total number of shares outstanding (Tandelilin, 2010).

The dependent variable in this study is the stock price, and the stock price data used is the closing price. Investors generally use closing prices before making investment decisions (Hillion & Suominen, 2004). The type of data used is secondary data obtained from the official website of the Indonesia Stock Exchange (www.idx.co.id, 2021).

The data were tested using the classical assumption test, which consisted of tests for normality, multicollinearity, autocorrelation, heteroscedasticity, and linearity. Furthermore, the data were analyzed using Multiple Linear Regression analysis with the following equation:

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$$Y = a + \beta_1 EVA + \beta_2 MVA + \beta_3 EPS + e$$

Y = Stock Price
e = Error term

IV. RESULTS AND DISCUSSION

Based on the classical assumption test results shown in Table 1, it can be known that the data are normally distributed, no multicollinearity, no autocorrelation, with no heteroscedasticity, but there is a linearity relationship. It can be concluded that these research data are qualified for multiple linear regression model-based analysis.

Based on the F test in Table 2, the calculated F value is greater than the F table value (81.003 > 2.76), meaning that EVA, MVA, and EPS simultaneously affect stock prices. Therefore, the coefficient of determination in Table 4 shows Adjusted R Square of 79.50%. Meanwhile the results of the t test in Table 3 show that the variables EVA and EPS each have a calculated t value that is greater than the t table value (2.001). This means that EVA and EPS partially have a positive effect on stock prices, while the MVA variable does not affect stock prices.

Table 1. Classical Assumption Test Results

No.	Classical Assumption Test	Remark
1.	Normality data test	Data is normally distributed
2.	Multicollinearity test	No multicollinearity
3.	Autocorrelation test	No autocorrelation
4.	Heteroscedasticity test	No heteroscedasticity
5.	Linearity test	There is a linear relationship

Source: Researcher’s calculation, 2021

Table 2. Results of the F-test

ANOVA ^a		
Model	F	Sig.
Regression	81.003	0.000 ^b

a. Dependent Variable: Stock Prices

b. Predictors: (Constant); EVA (X1); MVA (X2); EPS (X3)

Source: Researcher’s calculation, 2021

Table 3. Results of the t-test

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	-109.90	1208.20	-0.091	0.928
EVA	0.002	0.001	2.568	0.013
MVA	0.000009	0.000	0.906	0.369
EPS	23.83	2.454	9.713	0.000

Source: Researcher’s calculation, 2021

$$\text{Stock Price} = -109.9 + 0.002 X1 + 0.000009 X2 + 23.83 X3 + e$$

Table 4. Results of Coefficient of Determination

Model Summary ^b				
Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	0.897 ^a	0.805	0.795	5870.94

a. Predictors: (Constant); EVA (X1); MVA (X2); EPS (X3)

b. Dependent Variable: Stock Prices

Source: Researcher’s calculation, 2021

The Influence of EVA, MVA, and EPS on Stock Prices

Based on the results of the F-test in Table 2, the variables EVA, MVA, and EPS simultaneously affect stock

prices. In Table 4 the Adjusted R Square is 79.50%. It means that EVA, MVA, and EPS can explain 79.50% of changes in

variation in stock prices, and the remaining 20.50% explain these changes from other variables not included in this study.

The Effect of EVA on Stock Prices

Table 3 shows that the EVA variable positively influences stock prices. These findings align with the existing theory that a company with a high EVA value will increase investor confidence and increase the demand and price of the company's shares in the capital market. This study's results align with the research by Riska & Nurhayati (2015), who found that EVA partially has a significant effect on stock prices. However, this study's results contradict Faitullah (2016) and Pernamasari (2020), who found that EVA has no significant effect on stock prices.

The Effect of MVA on Stock Prices

The results of the t-test in Table 3 show that the MVA variable does not affect stock prices. The results of this study contradict the existing theory, meaning that whatever added value the company generates, the difference between the market value of the company's equity and the capital provided by the owner does not affect changes in share prices in the capital market. In other words, when the MVA value of a company increases, the stock price does not necessarily go up, the stock price can stay the same, or it can even go down. Such stock price conditions may be caused by: (1) the characteristics of manufacturing companies; most of the sample companies incurred some expenses to carry out their production activities, especially in 2015, there was an increase in expense items, including the average Regional Minimum Wage and Provincial Minimum Wage increased by 13%; (2) the benchmark interest rate in 2015 was still relatively high and was at the level of 7.5%, which could be the cause of the high-interest expense for most of the sample companies, even increasing compared to the previous year; (3) the Rupiah exchange rate, especially against the US Dollar weakened significantly in 2015, causing the company to record losses on exchange differences. These factors can cause costs to increase in manufacturing companies so that the company's net profit can decrease. A decrease in net profit will decrease investor interest in shares, and eventually, the share price will decrease. Therefore, if the company can increase the MVA value, investors are interested in something other than the company's performance.

The results of the research support the results of this study by Faitullah (2016), Masyrufi et al. (2020), and Pernamasari (2020) and contrary to the results of research by Puspita et al. (2015). They found that MVA had a partial positive effect on stock prices.

The Effect of EPS on Stock Prices

Table 3 shows that the results align with the existing theory that the EPS variable positively affects stock prices. EPS reflects the acquisition of net profit for each outstanding

share. The higher the company's EPS, the higher the investor's trust in the company, so the market share price will also increase. The results of this study are in line with the research of Faitullah (2016) and also Pernamasari (2020), who found that EPS has a significant effect on stock prices, and the results of this study contradict research conducted by Khairani (2016), who found that EPS does not affect stock prices partially.

V. CONCLUSION AND RECOMMENDATION

This study aims to examine the effect of Economic Value Added (EVA), Market Value Added (MVA), and Earnings Per Share (EPS) on the stock prices of manufacturing companies listed on the Indonesia Stock Exchange for the 2014-2020 period. The results of the Multiple Linear Regression analysis show that the variables EVA, MVA, and EPS simultaneously have a significant effect on stock prices. Meanwhile, based on the results of the t-test, the EVA and EPS variables partially have a positive effect on stock prices, and the MVA variable does not affect stock prices.

Companies should pay attention to the company's EVA and EPS values because, based on the results of this study, the EVA and EPS variables partially have a positive and significant effect on stock prices. In addition, investors can assess the company's ability by looking at the company's EVA and EPS values. However, investors should pay attention to other factors besides EVA and EPS before making an investment decision. It is based on the coefficient of determination, it shows that a 20.50 percent change in stock prices is due to other variables besides EVA, MVA, and EPS.

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