

Determinants of Stock Prices in the Indonesian Stock Exchange

Oryza Tannar

Faculty of Economic and Business, Universitas Pembangunan Nasional Veteran Jawa Timur,
Indonesia

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ABSTRACT

The main objective of financial reports is to provide useful accounting information for making economic decisions. Users of financial reports will use them to predict, compare and assess the financial information impacts arising from the economic decisions they make. This study aims to determine the effect of return on assets, return on equity, and net profit margin. The type of research conducted in this study is research using quantitative techniques in multiple regression analysis. The results of this study show that return on assets has a significant effect on stock prices, while return on equity and net profit margin do not have a significant effect on stock prices. Then, Return on Assets received by the company is more dominant in influencing the Stock Price. In general, the higher the ROA, the greater the Stock Price, because investors tend to prefer or like healthy companies that can provide high profits.

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Corresponding Author

Oryza Tannar

Email: oryza.tannar.ak@upnjatim.ac.id

INTRODUCTION

Financial information is specific information for businesses whose presentation is adjusted to generally accepted accounting principles. Financial information is used by both internal and external parties. This information is needed by many parties, such as investors, creditors, potential investors, management, the government, or other parties. Parties such as investors or creditors really need actual financial accounting information, because this information can be an indication of something that is happening related to the company's finances. Investors or creditors will pay more serious attention to financial accounting information, especially since this information can affect stock prices. Uniformity of information in financial accounting information is ultimately not only needed by investors or creditors, but by all stakeholders in the company's business. This is because the delivery of information to investors or creditors also involves management. The qualitative characteristics of financial information according to Statement of Financial Accounting (SFAC) No. 2 are interpreted as follows: relevant, meaning the

capacity of information that can drive a decision if used by users to predict future results based on past and present events. There are three main characteristics, namely: timeliness, reliability, neutrality, comparability, and consistency. The relationship between accounting information and company performance is the most basic need in the decision-making process for investors in the capital market. One source of this information is financial reports (Taslim, S. A., & Manda, 2021). Financial reports are a summary of the recording process, a summary of financial transactions that occurred during the relevant fiscal year. This financial report is made by management with the aim of being accountable for the tasks assigned to it by the company owners (Adnyana, 2020). In addition, financial reports can also be used to meet other objectives, namely as reports to parties outside the company. Financial reports have the main objective of providing useful information for economic decision-making. Information on the financial impacts that arise is very useful for users to predict, compare, and assess cash flow. If the value of money is unstable, then this must be explained in the financial report. Financial reports will be more useful if what is reported is not only quantitative aspects, but also includes other explanations that are deemed necessary (Al umar, A. ulil albab, & Nur Savitri, 2020). And this information must be factual and can be measured objectively. In addition, stock prices in accounting information presented in the financial statements of BEI companies also present the state of ROA, ROE, and NPM. As is known, these four elements have an important role in determining stock prices. So, it is important to know complete and clear information about ROA, ROE, and NPM. Based on the above phenomena, the researcher is interested in conducting research entitled "Determinants of Stock Prices in the Indonesian Stock Exchange".

LITERATURE REVIEW

Signalling Theory

Signal theory was first put forward by Spence (1973), which explains that the sender (information owner) provides a signal in the form of information that reflects the condition of a company that is beneficial to the recipient (investor). The company's motivation to provide information is because there is information asymmetry between the company and external parties, because the company knows more about the company and its future prospects than external parties (investors, creditors). One way to reduce information asymmetry is to provide signals to external parties, one of which is in the form of reliable financial information, which will reduce uncertainty about the company's future prospects.

Financial Accounting Information

Financial accounting information is information that includes the process and procedures of an organization's financial information for the purpose of reporting to internal and external parties of the company. Accounting information is information generated from the accounting process presented in the form of financial statements. Through these financial statements, investors can find out variables that are fundamentally estimated to influence more rational decision-making to make investments, in this case, stocks (Arsita, 2021).

Financial Reports

Generally, financial reports consist of balance sheets, income statements, and capital change statements. The balance sheet describes the amount of assets, liabilities, and

capital of a company on a certain date. The income statement shows the results achieved by the company and the costs incurred during a certain period. Return On Assets (ROA) is a ratio that measures a company's ability to generate profits using total assets. This ratio is directly proportional to the stock price. Return On Equity (ROE) is used to measure the company's rate of return or the company's effectiveness in generating profits. Net Profit Margin (NPM) is a ratio that measures a company's ability to generate profits using the company's net sales (Yuliantin, A., & Aprianti, 2022).

The Influence of ROA on Stock Prices

ROA is generally an indicator to show how much income a company has compared to its total assets. Hanafi, M. M. & Halim (2019) stated that Return on Assets (ROA) is an analysis that measures a company's ability to generate profits using the total assets owned by the company after being adjusted for the costs to fund those assets.

H1: ROA has a significant effect on the share prices of transportation companies listed on the IDX.

The Influence of ROE on Stock Prices

ROE or better known as the Decision-Making Ratio is a profitability ratio that measures a company's ability to generate profits from shareholder investments in the company. Hanafi, M. M & Halim (2019) state that Return on Equity (ROE) is a ratio analysis that describes the profit that can be allocated to shareholders for a certain period, after all creditors' rights and preferred shares have been paid off. According to Salihi, S. S. et al. (2023) profitability measurement focuses on company profits. So, return on equity, which measures the profitability of all equity contributors, is defined as profit (after tax) divided by the book value of equity.

H2: ROE has a significant effect on the share prices of transportation companies listed on the IDX.

The Effect of NPM on Stock Prices

NPM is the level of profit of a company from sales or income obtained. As a profitability ratio, NPM is calculated by comparing net profit and income or sales. According to Bagaskara (2021), Net Profit Margin is the comparison between net profit and sales. Digdowiseso, K & Rianasar (2023) states that NPM is a ratio that measures the company's ability to generate net profit from sales made by the company. This ratio reflects the efficiency of all parts, namely production, personnel, marketing, and finance, in the company. Ferli, O. & William (2023) state that NPM is a comparison between net profit and sales.

H3: NPM has a significant effect on the share prices of transportation companies listed on the IDX.

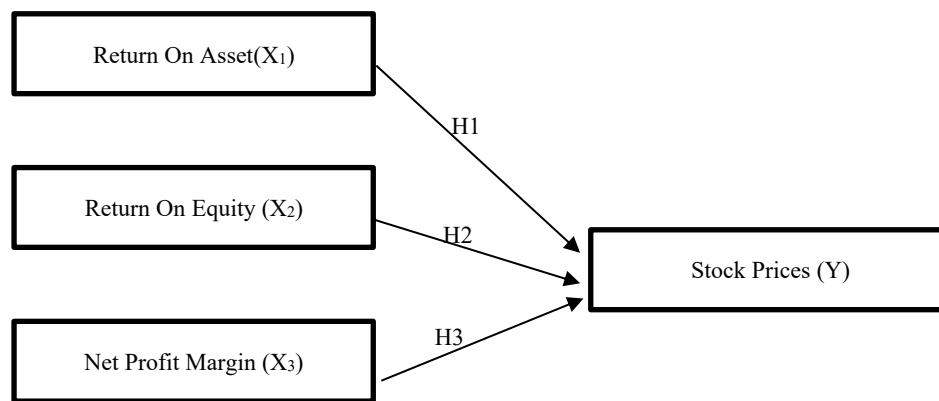


Figure 1. Research Framework

RESEARCH METHODS

The type of study used in this study is quantitative. As stated by Sugiyono (2021), quantitative research is research that is based on positivism. Data analysis in quantitative research is based on statistical or quantitative methods. Its purpose is to test previously established hypotheses. In other words, this research uses a quantitative approach that aims to quantitatively and statistically analyze the population or number in question based on the research hypothesis that was established previously using research instruments (Ghozali, I., & Ratmono, 2020).

The population in this study is 40 transportation companies listed on the Indonesia Stock Exchange. Purposive Sampling is a technique for determining research samples with certain considerations that aim to make the data obtained later more representative. In determining samples using the Purposive Sampling technique, a criterion test will be carried out with the aim that the data obtained later can be more representative, and the sample size is 30 transportations. The criteria set for selecting the sample are as follows:

1. Transportation companies listed on the Indonesia Stock Exchange during the period 2021-2023, with a total of 30 companies.
2. Transportation companies that publish annual financial reports for the period December 31, 2021-2023 stated in Rupiah (Rp).

The data used in this study are secondary data. The data source of this study was obtained from the financial statements of companies that have reported their finances on the Indonesia Stock Exchange.

RESULTS AND DISCUSSION

Results

Descriptive Analysis

The values in descriptive statistics include minimum, maximum, average, and standard deviation. Inferential statistical values are not displayed, because there are no predicted values.

Table 1. Descriptive Statistics of ROA, ROE, NPM, and Stock Price

| | ROA | ROE | NPM | Stock Price |
|----------------|----------|-----------|-----------|-------------|
| Mean | -1,516% | 3,831% | -24,815% | 524,76 |
| Std. Deviation | 10,435% | 102,987% | 63,752% | 683,079 |
| Minimum | -34,251% | -536,230% | -320,215% | 40 |
| Maximum | 23,181% | 705,436% | 345,030% | 3.800 |

The value in the dependent variable is the stock price, this value has a minimum of 50 (in rupiah per share) and a maximum of 3,800 (in rupiah per share). The value of 50 (rupiah per share) is the lower limit of the stock that can be reduced to the actual stock value.

The minimum value of ROA is -34.251% and the maximum value of ROA is 23.181%. A negative ROA value means that the company is experiencing a loss. The greater the negative value, the greater the loss experienced by the company.

The second independent variable is ROE; the minimum value of ROE is -536.230% and the maximum value is 705.436%. Companies with negative ROE values will be classified as companies that are not good at generating income. The greater the negative value, the more worrying or vulnerable the company is to bankruptcy. Conversely, a positive ROE value means the company is classified as good at generating income.

The third variable, NPM, has a minimum value of -320.215% and a maximum value of 345.030%. On average, the NPM value is negative, or -24.815%, so more people experience losses than those who experience profits.

Table 2. Normality Test

| | |
|--|----------------------------|
| N | 90 |
| Normal Parameters ^{a,b} | Mean .0000000 |
| | Std. Deviation 560.2047593 |
| Most Extreme Differences | Absolute .207 |
| | Positive .207 |
| | Negative -.207 |
| Kolmogorov-Smirnov Z | .504 |
| Asymp. Sig. (2-tailed) | .060 ^c |
| a. Test distribution is Normal. | |
| b. Calculated from data. | |
| c. Lilliefors Significance Correction. | |

Normality test, how to analyze it can be through Table 2, the results shown in the table are the "Asymp.Sig (2-tailed)" value of 0.060 which is greater than 0.05, so the data is normally distributed, meaning that the normality requirements in the regression model have been met.

Table 3. Multicollinearity Test

| | | Coefficients ^a | | t | Sig. | Collinearity Statistics | |
|-------------------------------------|-------------------|-----------------------------|---------------------------|-------|-------|-------------------------|-------|
| Model | | Unstandardized Coefficients | Standardized Coefficients | | | Tolerance | VIF |
| | B | Std. Error | Beta | | | | |
| 1 | (Constant) | 532.143 | 75.386 | 7.269 | .000 | | |
| | Return on Asset | 1735.629 | 1142.527 | .272 | 1.635 | .372 | 2.563 |
| | Return on Equity | -25.317 | 63.558 | -.051 | .364 | .708 | 1.045 |
| | Net Profit Margin | 32.482 | 164.673 | .041 | .183 | .895 | 2.253 |
| a. Dependent Variable: Stock Prices | | | | | | | |

Multicollinearity test, how to analyze it can be through Table 3 see the "Collinearity Statistics" column (far right), in the "Tolerance" value, namely the value of 0.372; 0.934 etc. is greater than 0.1, and in the "VIF" value, namely the value of 2.563; 1.045 etc. is less than 10, meaning that the data meets the requirements.

Table 4. Heteroscedasticity Test

| Coefficients ^a | | | | | |
|---------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| 1 (Constant) | 426.542 | 58.936 | | 7.653 | .000 |
| Return on Asset | 158.430 | 841.705 | .033 | .175 | .834 |
| Return on Equity | .365 | 50.976 | .001 | .006 | .984 |
| Net Profit Margin | 110.763 | 126.050 | .131 | .844 | .375 |

a. Dependent Variable: Abs RES

Heteroscedasticity test, how to analyze it can be through Table 4 see the "Sig" column (far right), at the Sig value ROA: 0.834, ROE: 0.984, etc. greater than 0.05, so there are no symptoms of heteroscedasticity, meaning that the data meets the requirements.

Multiple Linear Regression Analysis Method

This analysis is used to measure the strength of two or more variables and also shows the direction of the relationship between the dependent variable and the independent variable.

Table 5. Multiple Linear Regression Analysis Results on Stock Prices

| Coefficients ^a | | | | | |
|---------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| 1 (Constant) | 532.143 | 75.386 | | 7.269 | .000 |
| Return on Asset | 1735.629 | 1142.527 | .272 | 1.635 | .103 |
| Return on Equity | -25.317 | 63.558 | -.051 | -.364 | .708 |
| Net Profit Margin | 32.482 | 164.673 | .041 | .183 | .895 |

b. Dependent Variable: Stock Prices

The results of this multiple linear regression analysis can be displayed in Table 5. Based on these results using the predetermined formula, the results are in column B, so:

$$Y = 532.143 + 1735.629X_1 + -25.317X_2 + 32.482X_3$$

The equation model has the following meaning:

- If Return on Asset or ROA (X_1), Return on Equity or ROI (X_2), and Net Profit Margin or NPM (X_3) are equal to zero (0) then the Stock Price variable (Y) is worth 537.143.
- If Return on Asset or ROA (X_1) is considered or has a value of 1, then the result of the Y value from the equation is $Y = 532.143 + 1735.629$ and Y has a value of 2267.772. This means that if Return on Asset or ROA (X_1) increases or has a value of 1 then the Stock Price (Y) will increase by 2267.772, if Return on Asset or ROA (X_1) has a constant value of zero then the Stock Price value (Y) is worth 532.143.
- If Return on Equity or ROI (X_2) is considered or has a value of 1, then the result of the Y value from the equation is $Y = 532.143 - 25.317$ and Y has a value of 506.826. This means that if Return on Equity or ROI (X_2) increases or has a value of 1 then

the Stock Price (Y) will increase by 506.826, if Return on Equity (X_2) has a constant value of zero then the Stock Price (Y) has a value of 532.143.

- d. If Net Profit Margin (X_3) is considered or has a value of 1, then the result of the Y value from the equation is $Y = 532.143 + 32.482$ and Y has a value of 564.625. This means that if Net Profit Margin (X_3) increases or has a value of 1 then the Stock Price (Y) will increase by 564.625, if Net Profit Margin (X_3) has a constant value of zero then the Stock Price (Y) has a value of 532.143.

Table 6. Determination Coefficient Test (R^2)

| Model Summary ^b | | | | |
|----------------------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .257 ^a | .061 | .027 | 673.542 |

a. Predictors: (Constant), Return on Equity, Net Profit Margin, Return on Asset
b. Dependent Variable: Stock Prices

The results of the determination coefficient test can be displayed in Table 6. Based on these results, $R^2 = 0.061$ or 6.1% means that all independent variables are only 6.1% in influencing the Stock Price Variable (Y).

Table 7. F-Test

| ANOVA ^a | | | | | | |
|--|------------|----------------|----|-------------|-------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 2870132.510 | 3 | 735043.127 | 1.542 | .018 ^b |
| | Residual | 3782439.132 | 84 | 436470.428 | | |
| | Total | 41772580.652 | 87 | | | |
| a. Dependent Variable: Stock Price | | | | | | |
| b. Predictors: (Constant), Expense Before Interest and Taxes, Return on Equity, Net Profit Margin, Return on Asset | | | | | | |

The results of the F test (Simultaneous Testing) can be displayed in Table 7. Based on these results, see the "Sig" column, the Sig value = 0.018 is smaller than 0.05, so the Hypothesis is accepted, or all independent variables simultaneously affect the Stock Price Variable (Y).

Table 8. T-Test

| Coefficients ^a | | | | | |
|---------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| 1 (Constant) | 532.143 | 75.386 | | 7.269 | .000 |
| | Return on Asset | 1735.629 | .272 | 1.635 | .010 |
| | Return on Equity | -25.317 | -.051 | -.364 | .070 |
| | Net Profit Margin | 32.482 | .041 | .183 | .089 |

c. Dependent Variable: Stock Prices

The results of this t-test (Partial Testing) can be displayed in Table 8. Based on these results, see the "Sig" column, the Sig ROA value = 0.010 is smaller than 0.05, so the Hypothesis is accepted or the ROA Variable partially affects the Stock Price Variable (Y).

The Sig value of ROE and NPM = 0.070; 0.089 is greater than 0.05, so the Hypothesis is not accepted or the ROE and NPM variables do not partially affect the Stock Price Variable (Y).

Discussion

Based on the description results, the lowest stock price is 40 and the highest is 3,800, so the difference between the lowest and highest is 3,760. The highest stock price is 95 times the lowest stock price. The large difference between the highest and lowest stock prices means that there is a large gap between companies with high (highest) and low (lowest) stock prices. Companies with high stock prices have the power to attract investors compared to companies with low stock prices. Companies with low stock prices still need investor trust to invest.

There are negative ROA values or companies that experience losses, and there are positive ones or companies that make a profit from their business. Losses or profits experienced by a company are common in a business. However, of course, all companies want their business to always make a profit. For companies that are still experiencing losses, which can be seen from the negative ROA value, they can improve themselves. Many factors can cause losses. Generally, because the market is sluggish and operational costs continue to exceed income. Thus, there needs to be an evaluation in management, so that losses can turn into profits.

Continuous losses further reduce the company's resilience, and the company will be vulnerable, so it can go bankrupt. The low ROE value of -536.230%, then the company must be handled with the best management. Handling with the best management aims for the company to recover and the ROE value to be positive again like a company with an ROE value of 705.436%. A positive ROE value will also have an impact on saving the workforce because they can work happily, as the company is in a healthy condition. In order for the company to make a profit again, it is necessary to pay attention to the difference between sales and income. Profit is obtained if the NPM value is positive. The NPM ratio is positive, so the company is making a profit. If the NPM value is up to -320.215%, then the company must change its sales strategy. The sales strategy will later change its income, so that it is no longer smaller than its operating costs.

CONCLUSION

Based on the results of data analysis and discussion conducted in the previous section, this study produces the conclusion that the influence of four variables (ROA, ROE and NPM) on Stock Price tends to be low (less than ten percent) because ROA, ROE, and NPM information is considered not so important in influencing Stock Price, or the company's income problems are not that big in influencing the Same Price. Thus, there are still many other stronger factors that can influence the Stock Price.

Net profit (ROA) received by the company is more dominant in influencing the Stock Price. In general, the higher the ROA, the greater the Stock Price, because investors tend to dare / like companies that are healthy or can provide high profits.

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