http://ejournal.seaninstitute.or.id/index.php/Ekonomi
**Jurnal Ekonomi, Volume 10, No 01 June 2021**
ISSN: 2301-6280 (print) ISSN: 2721-9879 (online)

# BETWEEN ROA, ROE, NPM, AND EBIT VARIABLES, WHICH CAN CHANGE THE STOCK PRICE

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## ARTICLEINFO

*Keywords*:
Financial accounting information
Stock Prices
IDX

## ABSTRACT

Financial accounting information is general purpose information presented in accordance with Generally Accepted Accounting Principles (GAAP). This information is used for internal and external parties. Accounting information related to company performance is the most basic requirement in the decision-making process for investors in the capital market. Stock prices in accounting information presented in the IDX's financial statements, also present the state of ROA, ROE, NPM and EBIT. The purpose of this study was to determine the effect of accounting information on stock prices of manufacturing companies in the food and beverage sub-sector on the Indonesia Stock Exchange. This research is located at the IDX (Indonesia Stock Exchange) office. The sample selection method in this research is purposive sampling method with a total sample of 5 companies. The data collection techniques collect data on the company's financial statements during the study period. The data analysis method used is multiple regression with the help of SPSS software. The results showed that 1) the coefficient value of ROA, ROE, NPM, and EBIT showed the effect on stock prices simultaneously. 2) ROA, ROE, NPM partially significant effect on stock prices, while EBIT has no influence on the stock prices of manufacturing companies in the food and beverage sub-sector on the IDX. 3) The most dominant variable influencing ROA, ROE, NPM and EBIT on the share prices of food and beverage sub-sector manufacturing companies on the IDX is the ROA variable.

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## 1. INTRODUCTION

Financial accounting information is general purpose information presented in accordance with Generally Accepted Accounting Principles (GAAP). This information is used for internal and external parties. Financial Accounting Information is presented with the assumption that the information needed by investors, creditors, potential investors and creditors, management, government, and so on can represent the information needs of parties other than investors and creditors. Thus, one uniform information is needed for all parties with an interest in the company's business (Bodnar, 2013). In general, Financial Accounting Information is compiled and reported periodically so that it cannot meet management's need for timely information. In addition, Financial Accounting Information is presented in a format that is too rigid so that it is not able to meet the information needed by management (Islahuzzaman, 2012).

Accounting information related to company performance is the most basic requirement in the decision-making process for investors in the capital market. One source of this information is financial reports. The financial report is a summary of a recording process, which is a summary of financial transactions that occurred during the relevant financial year. This financial report is prepared by management with the aim of being accountable for the tasks assigned to it by the owners of the company. Besides, financial reports can also be used to fulfill other purposes, namely as reports to parties outside the company (Baridwan, 2015).

The main purpose of financial statements is to provide useful information for making economic decisions, users of financial statements will use them to predict, compare and assess the financial effects arising from the economic decisions they make. Information about the financial effects that arise, is very useful for users to forecast, compare, and assess cash flows. If the value of money is unstable, then this must be explained in the financial statements. Financial statements will be more useful if the reports are not only quantitative aspects, but include other explanations that are deemed necessary. And this information must be factual and can be measured objectively (Sofyan, 2014). The accounting information system on the IDX acts as a forum for all transactions carried out in business processes. For this reason, accurate information is needed in managing data and systems that exist on the IDX as a company that goes public. From this, it will be known that the management of the organization has been implemented properly or not.

Stock prices in accounting information presented in the IDX's financial statements, also present the state of ROA, ROE, NPM and EBIT. As it is known that these four elements have an important role in determining stock prices. So it is important to know complete and clear information about ROA, ROE, NPM, and EBIT. Return On Assets (ROA) is a ratio that measures the 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 the company's ability to generate profits using the company's net sales. If the NPM value increases, the stock price will also increase. Earnings Before Interest and Taxes (EBIT) is a measurement of looking at the condition of the company's core business operations without having to worry about the consequences of payment or interest costs (Hanafi & Halim, 2014).

This research is supported by research conducted by Miharjo (2013) which suggests that partially it can be concluded that the variables that affect stock price changes are CR, DER, NPM, and ROE, while ROI has no effect on stock price changes. The five independent variables together have a significant effect on stock prices.

The rise and fall of stock prices in the capital market is an interesting phenomenon to talk about in relation to the issue of the rise and fall of the value of the company itself. The author wants to focus on researching Food and Beverage companies listed on the Indonesia Stock Exchange because this company has provided complete quarterly financial report data for one year and also this company is widely eyed by investors so that it is interested in researching with the title "Between ROA, ROE, and ROA Variables. NPM, and EBIT, Which Can Change Stock Prices?".

## REVIEW OF LITERATURE AND FORMULATION OF HYPOTHESES

### Signalling Theory

Signaling theory or signal theory explains why companies have the urge to provide financial statement information to external parties. The company urges to provide information because there is information asymmetry between the company and outside parties because the company knows more about the company and its future prospects than outside parties (investors, creditors). One way to reduce information asymmetry is to give signals to outsiders, one of which is in the form of reliable financial information and will reduce uncertainty about the company's future prospects.

A signal or signal is an action taken by the company's management that provides clues to investors about how management views the company's prospects. Furthermore, companies with profitable prospects will try to avoid selling shares and seek new capital in other ways such as using debt. Companies with less favorable prospects will tend to sell their shares. Signal theory explains why managers of an entity have voluntary incentives to report information to the capital market even though there are no stipulations that require it (Jogiyanto, 2014).

### Accounting Information

Accounting information is information that includes processes and procedures for organizational financial information with the aim 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 this financial report, investors can find out which variables are fundamentally expected to influence more rational decision making to invest in this case stocks (Widjayanto, 2013). Accounting information is a collection of resources, such as people and equipment designed to convert financial data and other data into information, the information is communicated to decision makers (Bodnar & Hopwood, 2013).

The financial statements contain information about the company's financial condition to the users. By understanding the financial statements of a company, various interested parties can see the financial health condition of a company. Financial Statements are reports that show the company's financial condition at this time or in a certain reporting period. Financial statements are the result of the accounting process or as the final product of a series of processes for recording and summarizing business transaction data that is used as a communication tool regarding financial data or activities within the company. Financial Statements (Financial Statements) are accounting information that describes the company's financial position and the company's results of operations for the period ending on a certain date, which consists of a balance sheet, profit and loss list, changes in equity, cash flows and other information. It can be said, financial statements are a summary of financial transactions that occurred during the financial year made by management as a means of accountability to company owners and reports to other interested parties.

Accounting information presented in the form of financial statements has uses for various parties. These uses include as a planning tool, controlling company activities, and the basis for making decisions for leaders and as reports that can be accounted for to parties outside the company. The parties that require accounting information include internal parties and external parties. External parties consist of investors, employees, lenders (banks), suppliers, customers, government, and the community.

**Financial Statement Analysis**

Financial statement analysis means a process of breaking down data (information) contained in financial statements into separate components, examining each component, and studying the relationship between these components using certain analytical techniques in order to obtain an accurate understanding and a comprehensive picture of the information. Financial statement analysis is one way to find out the company's performance in a period (Alfia, 2018).

Financial reports are prepared or made by management to provide an overview or progress report periodically. Therefore, financial statements have a historical and comprehensive nature. The financial report as a progress report consists of data which is a combination of recorded facts, accounting principles and habits, and personal judgment (Najmudin, 2011). Financial statements are the final result of the accounting process. Every transaction that can be measured by the value of money is recorded and processed in such a way. The final report is also presented in monetary terms.

The financial statements of a corporation generally include a balance sheet, income statement, and reports on sources and uses of funds. Financial analysis that produces information about the valuation and financial condition of the corporation, both past and present and its expectations in the future. The purpose of this analysis is to identify every weakness of the financial situation that can cause problems in the future and determine every strength that can become a corporate advantage.

The management of an organization, whether profit-oriented or not, will always be faced with making decisions for the future. Good and bad decisions taken will depend and are determined by the information used and management's ability to analyze and interpret it. One of the important sources of information used by management in making these decisions, especially financial decisions, is financial statements (Najmudin, 2011).

Return on Assets (ROA) is an analysis that measures the company's ability to generate profits by using the total assets owned by the company after adjusting for the costs to fund these assets. ROA is used to see the extent to which investments that have been invested are able to provide returns in the form of profits as expected. ROA is a ratio that shows the results of the total assets used in the company. ROA is also a measure of the effectiveness of management in managing its investments.

Return On Equity (ROE) is a ratio analysis that describes the profit that can be allocated to shareholders for a certain period, after all creditor rights and preferred shares have been paid off. ROE is very important for shareholders and potential investors, because high ROE means that shareholders will receive high dividends as well and an increase in ROE will cause an increase in shares. ROE is used to measure the return on investment of shareholders. This figure shows how well management is making use of shareholders' investments.

Net Profit Margin (NPM) is the ratio between net profit and sales. 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. This ratio shows how large the percentage of net profit earned from each sale. The larger this ratio indicates the greater the company's ability to earn profits. The relationship between net profit after tax and sales shows management's ability to manage the company so that it can leave a certain margin as compensation for capital owners. Capital market investors need to know the company's ability to generate profits.

Income before Interest and Tax (EBIT) is a profitability measurement that calculates the company's operating profit by subtracting the cost of selling goods and operating costs from the total revenue (total revenue). Investors and creditors use this EBIT calculation to see the condition of the company's core business operations without having to worry about the consequences of payment or interest costs. With this EBIT calculation, Investors and Creditors can assess whether the company's business activities can run effectively. This calculation can also help Creditors and Investors understand the health of the company and the company's ability to pay its obligations.

**Stock price**

Shares are proof of ownership of capital or funds in a company. There are two types of shares that are most commonly known by the public, namely common stock and preferred stock. Factors that affect stock prices are derived from macroeconomics and microeconomics. Microeconomic factors are factors that affect the stock price of a company originating from within the company itself. Microeconomic factors are earnings per share, operating income per share, book value per share, equity to debt ratio, net income to equity ratio, and cash flow per share. Meanwhile, macroeconomic factors are factors that are outside the company but have an influence on the increase or decrease in company performance or stock performance either directly or indirectly. Which includes macroeconomic factors, namely: general interest rates, inflation, taxation, government policies, foreign exchange rates, foreign interest, international economy, economic cycle, and money circulation.

## 2. METHOD

This type of research is a type of causality research or can be referred to as causal research. Causality research is a research design designed to examine the possibility of a causal relationship between variables (Sanusi, 2011). The purpose of causality research is to identify cause-and-effect relationships between various variables.

Population is a generalization area consisting of objects/subjects that have certain characteristic qualities that are determined by the researcher to be studied and researched and then drawn conclusions. The population of this study are 5 manufacturing companies in the food and beverage sub-sector which are listed on the Indonesia Stock Exchange. The sample is part or representative of the population. Purposive Sampling is a technique for determining research samples with certain considerations aimed at making the data obtained more representative. In determining the sample using the purposive sampling technique, a criterion test will be carried out with the aim that the data obtained later can be more representative. The data collection method used is documentation in the form of data collection by collecting secondary data in the form of financial statements of transportation companies obtained from website publications that can be accessed through www.idx.co.id.

Table 1. Definition of Operational Variables

| Variable | Definition | Parameter |
|---|---|---|
| Stock price (Y) | The share price is the amount of money used to acquire ownership of a company. | - |
| ROA (X1) | An analysis that measures the company's ability to generate profits by using the total assets owned by the company after adjustment. | $ROA = \frac{EAT}{Total\ Asset}$ |
| ROE (X2) | ratio analysis that describes the profit that can be allocated to shareholders for a certain period, after all creditor rights and preferred shares are paid off. | $ROE = \frac{EAT}{Total\ capital}$ |
| NPM (X3) | a ratio that measures the company's ability to generate net profit from sales made by the company. | $NPM = \frac{Net\ profit\ after\ tax}{sale}$ |
| EBIT (X4) | profitability measurement that calculates the company's operating profit by subtracting the cost of selling goods and operating costs from total revenue (total revenue). | $EBIT = Net\ profit + Tax + Bank\ interest$ |

Good types and sources of data are data that can be trusted, are timely and cover a wide scope or can provide an overview of a problem as a whole and are relevant data. The type of data used in this study is secondary data, namely data collected by data collection institutions and published to the public using data in the form of annual financial reports from food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange.

This research uses descriptive analysis techniques, classical assumptions, multiple linear regression and hypothesis testing. The data used is secondary data that is processed in such a way as to provide systematic, factual, and accurate data regarding the problems studied. Multiple linear regression is used to obtain a mathematical relationship in the form of an equation between a single dependent variable and a single independent variable. Simple linear regression has only one variable associated with one dependent variable. The general form of the linear regression equation for the population is:

$$Y = a + b1X1 + b2X2 + b3X3 + b4X4 + e$$

Keterangan:
$a$= stock price
$X1$=ROA
$X2$=ROE
$X3$=NPM
$X4$=EBIT

## 3. RESULTS AND DISCUSSION

**Results**

Table 2. Descriptive Analysis

| | ROA | ROE | NPM | EBIT | Harga Saham |
|---|---|---|---|---|---|
| **SUM** | 124,63 | 467,53 | 241 | 821,01 | 287,32 |
| **MIN** | 0,01 | 0,71 | 3 | 1,9 | 4,7 |
| **MAX** | 8,73 | 25,82 | 7 | 43,45 | 7,49 |
| **MEAN** | 2,769556 | 10,38956 | 5,355556 | 18,24467 | 6,385 |
| **STD. DEV** | 2,26932 | 7,09342 | 2,43667 | 0,90843 | 0,70886 |

Table 3. Classical Assumptions

| Normality | Mark | Criteria | Decision |
|---|---|---|---|
| **test** | 0,084 | α > 0,05 | Normal Distribution |
| **Multikolinieritas** | ROA: Tolerance 0,960 VIF 1,042 | Tolerance > 0,01 VIF< 10 | There is no multicollinearity between independent variables |
| | ROE: Tolerance 0,881 VIF 1,135 | Tolerance > 0,01 VIF< 10 | There is no multicollinearity between independent variables |
| | NPM: Tolerance 0,970 VIF 1,031 | Tolerance > 0,01 VIF< 10 | There is no multicollinearity between independent variables |
| | EBIT: Tolerance 0,894 VIF 1,119 | Tolerance > 0,01 VIF< 10 | There is no multicollinearity between independent variables |
| **Heterokedastisitas** | The point is spread and there is no certain pattern | The point is spread and there is no certain pattern | There is no heteroscedasticity |

The data analysis method used is multiple regression analysis with the help of SPSS. Multiple regression analysis is the relationship between two variables, namely the independent variable (independent variable) and the dependent variable (dependent variable). Based on the results of data analysis, the form of the linear regression equation for the population is obtained as follows:

$$Y = 6{,}619 + 0{,}165X1 + 0{,}044X2 + 0{,}249X3 + 0{,}01X4 + e$$

The coefficient of determination (R2) is intended to measure the ability of how big the percentage of variation of the independent variable (independent) linear multiple in explaining the variation of the dependent variable (dependent). In other words, testing the model using (R2), can show that the independent variables used in the multiple linear regression model are independent variables that are able to represent the whole of the other independent variables in influencing the dependent variable, then the magnitude of the effect is shown in the form percentage.

Table 4. Coefficient of Determination

| | Mark | Decision |
|---|---|---|
| R | 0,790 | The level of relationship between variables is quite high |
| R Square | 0,624 | 62.4% of the value of the share price has been explained by ROA, ROE, NPM, and EBIT. Meanwhile, the remaining 37.6% of the information regarding the share price cannot be explained by these independent variables. |

Simultaneous testing is carried out using the F test. In other words, whether the regression model can be used to predict the company's stock price or not. Here are the results of statistical tests:

Table 5. F . test

| | Mark | Criteria | Decision |
|---|---|---|---|
| F | 16,572 | Fcount > Ftable | ROA, ROE, NPM, and EBIT |
| Sig. | 0,000 | α < 0,05 | affect stock prices |

The t-statistical test basically shows how far the influence of one explanatory/independent variable individually in explaining the variation of the independent variable.

Table 6. t test

| | Mark t | Criteria | Mark Sig. | Criteria | Decision |
|---|---|---|---|---|---|
| ROA | 5,283 | tcount > ttable | 0,000 | α < 0,05 | ROA has a positive effect on stock prices |
| ROE | 3,705 | tcount > ttable | 0,001 | α < 0,05 | ROE has a positive effect on stock prices |
| NPM | 2,733 | tcount > ttable | 0,009 | α < 0,05 | NPM has a positive effect on stock prices |
| EBIT | 1,731 | tcount > ttable | 0,091 | α < 0,05 | EBIT has no positive effect on stock prices |

**Discussion**

Return on assets (ROA) is one of the ratios that measure the company's profitability. ROA is used to measure the company's ability to create profits from assets controlled by management. The higher the ROA value indicates that the company's performance is getting better. This is indicated by the results of data analysis which shows that the ROA coefficient is 0.165 with a partial value of 0.641, which indicates that the ROA variable affects 64.1% of stock prices. Stock prices and profitability ratios are important indicators for investors to assess the company's prospects in the future. In the Company, there are several companies that experience increases and decreases in share prices. A declining stock price can affect the value of the company in the eyes of investors. The cause of the increase or decrease in stock prices depends on the company's profitability ratios, such as Return On Assets (ROA).

ROE is a ratio used to assess a company's ability to seek profit and provides a measure of the effectiveness of a company's management. Included in this ratio are profit margin on sales, return on investment, return on equity, and earnings per share. The profitability ratio used in this study is return on equity. As an indicator of profitability performance, ROE is widely used to compare the profitability performance of companies in the same industry. This is indicated by the results of data analysis which shows that the ROE coefficient is 0.044 with a partial value of 0.505, which indicates that the ROE variable affects 50.5% of stock prices.

Net Profit Margin is the ratio between net profit and sales. The greater the NPM, the more productive the company's performance will be, so that it will increase investor confidence to invest in the company. This ratio shows how much net profit is obtained from each sale. The greater this ratio, the better the company's ability to earn high profits. This is indicated by the results of data analysis which shows that the NPM coefficient is 0.249 with a partial value of 0.397, which indicates that the NPM variable affects 39.7% of stock prices.

EBIT is earnings before interest and taxes, or as it is commonly called, operating income. NRE is profit before tax. Investors and creditors use this EBIT calculation to see the condition of the company's core business operations without having to worry about the consequences of payment or interest costs. With this EBIT calculation, Investors and Creditors can assess whether the company's business activities can run effectively. This calculation can also help Creditors and Investors understand the health of the company and the company's ability to pay its obligations. This is indicated by the results of data analysis which shows that the EBIT coefficient is 0.010 with a partial value of 0.264, which indicates that the EBIT variable does not affect stock prices with a significance of 0.091> 0.005.

The stock price is formed in the capital market and is determined by several factors such as earnings per share or earnings per share, the ratio of earnings to price per share or price earning ratio, the risk-free interest rate as measured by the interest rate on government deposits and the level of certainty of the company's operations. So that it can be concluded that the stock price will be formed from the transactions that occur in the capital market which are determined by the demand and supply of the shares in question, influenced by several factors. In research, the most dominant factor influencing is the ROA variable which has a regression coefficient of 0.165 stating that every 1% increase in Return On Assets (ROA) (assuming that the coefficients of other variables remain or do not change) will increase the stock price by Rp. 165 If the Return On Assets (ROA) decreases by 1% (assuming that the coefficients of other variables remain or do not change), the stock price is predicted to decrease by Rp. 165.

## 4. CONCLUSION

The conclusions that can be drawn from this research are:

1. The coefficient values of ROA, ROE, NPM, and EBIT show the effect on stock prices simultaneously.
2. ROA, ROE, NPM partially significant effect on stock prices, while EBIT has no effect on stock prices of manufacturing companies in the food and beverage sub-sector on the IDX.
3. The most dominant variable that influences ROA, ROE, NPM and EBIT on stock prices of manufacturing companies in the food and beverage sub-sector on the IDX is the ROA variable.

After reviewing the results of this study, the managerial implications that the authors can propose are as follows:

1. For investors who will invest in shares, in this case the shares of transportation companies on the Indonesia Stock Exchange, it is better to pay attention to other fundamental aspects and other technical factors.
2. For further writers or researchers to increase the sample of companies to be studied and the period of observation as well as technical factors and other fundamental variables that can affect stock prices.

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