

The Impact of Return on Assets, Debt Equity Ratio, and Return on Equity on Stock Prices of Food and Beverage Manufacturing Companies Listed on the Indonesia Stock Exchange from 2019 to 2021

Khomeiny Yunior*, Amelia Putri, Tasya Dasfitri Rapmian Hutasoit, Juanda Arjuna Sirait

Universitas Prima Indonesia Medan
e-mail: khomeinyyunior@gmail.com

Abstract

The purpose of this study is to examine and analyze the influence of Return on Assets (ROA), Debt to Equity Ratio (DER), and Return on Equity (ROE) on stock prices in food and beverage sector manufacturing companies listed on the Indonesia Stock Exchange. In conducting the analysis, there are various types of ratios with different functions that can be used. Of the numerous ratios, the financial ratios used in this study are ROA, DER, and ROE as independent variables, and the Stock Price as the dependent variable. The sample collection technique in this study used a purposive sampling technique with 30 companies selected as samples from a population of 54 food and beverage sector industries for the 2019-2021 period, which are listed on the Indonesia Stock Exchange (IDX). The method in this study uses a quantitative approach and the data source in this study uses secondary data sources that include documentation studies. This method is used to gather data from companies related to the variables under study. In testing the hypothesis, this study uses Multiple Linear Regression Analysis. From the hypothesis testing in the study, it was found that, simultaneously, ROA, DER, and ROE, which are the independent variables, influence the Stock Price of food and beverage manufacturing companies listed on IDX for the 2019-2021 period, which is the dependent variable. In addition, the results of partial hypothesis testing in this study found that, partially, ROA, DER, and ROE do not affect the Stock Price of manufacturing companies listed on the IDX for the 2019-2021 period.

Keywords: *ROA, DER, ROE, and Stock Price.*

1. Introduction

Food and beverage companies produce consumer food needs. Examples of food manufacturing include sugar production and biscuit products. Manufacturing companies contribute to the development of the Indonesian economy. Their consistent performance, increasing productivity, investment, exports, and job creation. The large number of consumers purchasing products leads to a rise in stock prices. For instance, the company PT. CISARUA MOUNTAIN DAIRY TBK [CMRY] experienced a stock increase of 2.00% in July 2022, where the previous stock price of IDR 4,370 rose to IDR 4,490 per lot. This was due to investors noticing the high consumption of products produced by this company.

The stock price is the price determined by the company for its shares. On the IDX, the stock price is due to the demand for the shares. The stock price has a significant impact on the company, as the increase in the stock price also increases the value of the company. Factors causing the effects of ROA, ROE, and DER on stock prices are reviewed from sales profits and total asset turnover in ROA, from company activity ratios, debts and liquidity in ROE, and DER reviewed from debt value and equity. ROA indicates the comparison of the net profit of the company with the capital that has been invested in an asset. A low ROA will result in the company being less productive and will impact the stock price. DER indicates the financial comparison between total debt and equity. The amount of debt and equity should be proportional. A high DER will lead to a decline in the fundamental condition of the company. ROE is a calculation that shows the comparison of the company's ability to obtain net profit with its own capital and to obtain net profit for investors (Ariesa et al., 2023). A low ROE means the company is not doing well, the company's position will be weak, which will impact the stock price.

2. Literature Review

Theory of Return on Asset on Stock Price

Ryan (2016:112) states that ROA is a measure of income compared to total assets. It signifies the increase in company assets without considering anything else. Hery (2015:228) states that ROA is a comprehensive financial analysis technique. ROA measures the effectiveness of a company with all assets in obtaining profit for the company's operations. Kasmir (2014:201) states that ROA is a profitability ratio analysis. It compares net income inconsistently with all assets to obtain profits. In conclusion, ROA is a comprehensive financial analysis technique in profitability ratio analysis if income is compared to total assets.

Theory of Debt Equity Ratio on Stock Price

Sukamulja (2017:50) states that DER is a measure of the percentage of liabilities on a company's capital. This is important to understand the company's business risk. Mudrajat Kuncoro (2016:288) states that DER is useful to know the comparison of total and a by creditors from shareholders. Samsul (2015:174), DER is a ratio between total debt and equity. The ratio position can change each month or year. DER is the percentage of liabilities on a company's capital, which contains a comparison of total debt to equity to measure the company's business risk.

Theory of Return on Equity on Stock Price

Fahmi (2016:82), ROE is known as the profit on equity/total asset turnover. Prihadi (2014:261) states that for capital owners this ratio is important to know the results obtained from the addition of capital. Wachowicz and Van Horne (2014:183), suggest that ROE is a comparison of net income after tax with the equity of shareholders. Based on the opinions above, it can be concluded that ROE is a ratio that compares net income after tax with equity or a ratio in measuring profit from the owner's own capital (Meiryani et al., 2023).

Conceptual Framework

Based on the background and literature review, the researcher can create the following conceptual framework:

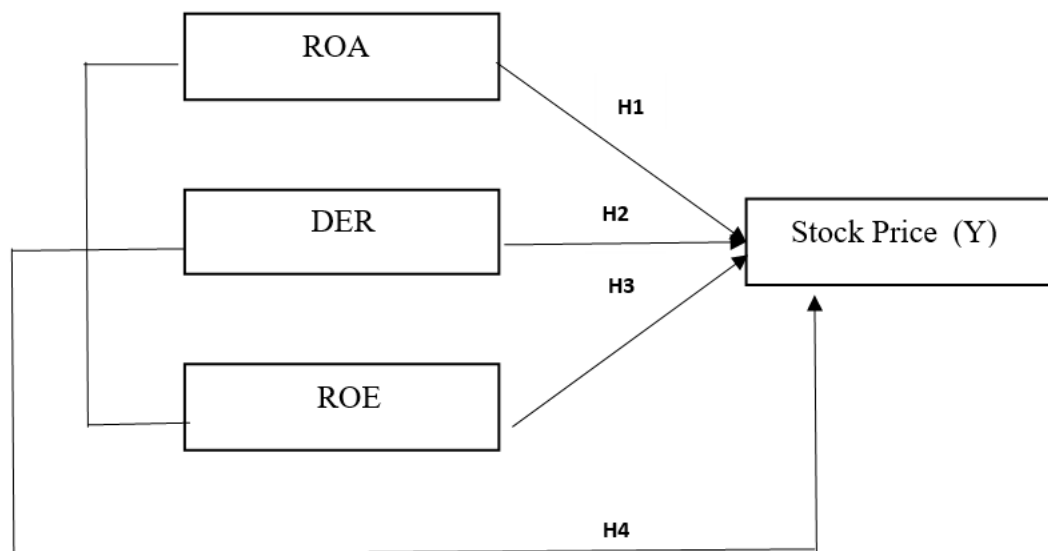


Figure 1. Conceptual Framework

Research Hypotheses

- H1: ROA impacts the Stock Price of food and beverage companies on the IDX.
- H2: DER impacts the Stock Price of food and beverage companies on the IDX.
- H3: ROE impacts the Stock Price of food and beverage companies on the IDX.
- H4: ROA, DER, and ROE collectively impact the Stock Price of food and beverage companies on the IDX.

3. Methodology

Research Location and Time

The research was conducted at food and beverage companies listed on the Indonesia Stock Exchange (IDX) from 2019-2022. The data was retrieved from the IDX's website (www.idx.co.id) and Google (www.google.com). The research was carried out from March 2023 to August 2023.

Research Method

The study utilized a quantitative approach, and the research type was causal, showcasing cause-and-effect relationships.

Research Population and Sample

The population for this study consisted of 30 food and beverage companies listed on the IDX from 2019 to 2021. A purposive sampling technique was used for sample selection (Maenuddin et al., 2023). According to Sugiyono (2013:81), purposive sampling involves determining samples based on certain considerations. The sampling criteria were as follows: companies must have been registered on the IDX from 2019 to 2021, they must have published their financial reports during this

period, and they must have consistently earned net profits during these years. Based on these criteria, 21 companies were selected as samples, with observations carried out over three years, making a total of 63 samples.

Data Collection Technique

Data collection was conducted via documentation, including related research journals on the variables under investigation, and theoretical books that could serve as references for this research. The data was quantitative, and its source was secondary, i.e., from document studies.

Research Analysis Model

The classical assumption test consisted of tests for normality, multicollinearity, and heteroskedasticity. The research analysis model was multiple linear regression. Hypothesis testing was performed simultaneously (F-test) and partially (t-test), with criteria for acceptance and rejection detailed.

4. Result and Discussion

Descriptive Analysis

The minimum value for the Return on Assets (ROA) variable is -1.37, and the maximum value is 8.30. The mean is 0.1509, with a standard deviation of 0.90067. For the Debt Equity Ratio (DER) variable, the minimum value is -2.1273, and the maximum is 13.5511. The mean is 0.982513, with a standard deviation of 1.6587903. For the Return on Equity (ROE) variable, the minimum value is -0.1452, and the maximum is 0.0977. The mean is -0.021337, with a standard deviation of 0.0291722. For the stock price (Y) variable, the minimum value is 0.00, and the maximum is 15500.00. The mean is 1957.9773, with a standard deviation of 3076.17595.

Normality Test

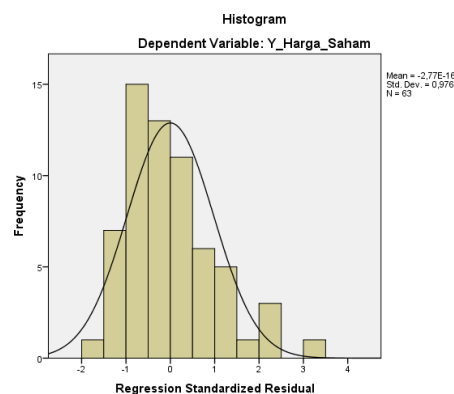


Figure 2. Histogram

From Figure 2, the real data shows a symmetric curve that does not skew to the left or right, indicating a normal distribution.

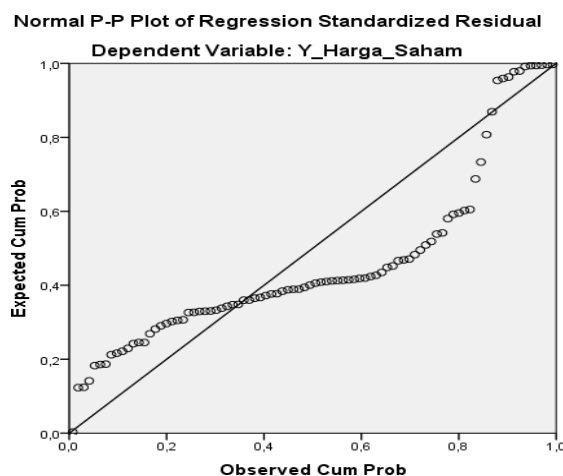


Figure 3. P-Plot

From Figure 3, the data in the Normality P-Plot graph forms a pattern that follows the diagonal line, indicating a normal distribution.

Multicollinearity Test

To identify multicollinearity symptoms, one can examine the Variance Inflation Factor (VIF) and tolerance values. If the VIF value is less than 10 and the tolerance is more than 0.1, there is no multicollinearity (because $VIF = 1/\text{tolerance}$). The results of the multicollinearity test are as follows:

Table 2. Multicollinearity

Model	Collinearity Statistics		
		Tolerance	VIF
1.	X1_ROA	,928	1,07
	X2_DER	,962	1,03
	X3_ROE	,927	1,07

The tolerance values of ROA is 0.928, greater than 0.1; DER is 0.962, greater than 0.1; and ROE is 0.927, greater than 0.1. The VIF values of ROA is 1.077, less than 10; DER is 1.039, less than 10; and ROE is 1.079, less than 10. These results indicate that there is no correlation, signifying the absence of multicollinearity.

Multiple Linier Regression

Based on Table 2, the following multiple linear regression equation for this study is obtained:

Table 2. Coefficients

Model	Unstandardized Coefficients	
	B	Std. Error
1 (Constant)	537,498	199,985
ROA	2277,128	1884,578
DER	-120,745	156,857
ROE	-17122,005	7849,277

$$Y = 537,49 + 2277,128 X1 - 120,745 X2 -17122,005 X3 + e$$

Based on the equation above, the constant is 537.498. This means that when Return on Assets (ROA), Debt to Equity Ratio (DER), and Return on Equity (ROE) are constant, the stock price stands at 537.498 units. The regression coefficient for ROA is 2277.128, and it has a positive value. This implies that for every single unit increase in ROA, the stock price increases by 2277.128 units, assuming all other variables remain constant. The regression coefficient for DER is -120.745, and despite it being negative, it is interpreted as a positive change in the context of this equation. This means that for every single unit increase in DER, the stock price increases by -120.745 units. The regression coefficient for ROE is -17122.005, which is negative. This suggests that for every single unit increase in ROE, the stock price decreases by 17122.005 units.

Discussion

Impact of ROA on Stock Price

Based on the partial hypothesis test results, the calculated value is less than the table value ($1.028 < 2.001$) and the significance level is greater than 0.05 ($0.232 > 0.05$). This implies that, in part, the Return on Assets (ROA) does not affect the stock price of food and beverage companies on the Indonesia Stock Exchange (IDX). This finding is inconsistent with Paramita's (2020) research, which found that ROA partially affects the stock price.

Impact of DER on Stock Price

From the partial hypothesis test results, the calculated value is less than the table value ($-0.770 < 2.001$) and the significance level is greater than 0.05 ($0.445 > 0.05$). This suggests that, in part, the Debt to Equity Ratio (DER) does not impact the stock price of food and beverage companies on the IDX. This finding aligns with Hardianti's (2019) study, which concluded that DER does not partially affect the stock price.

Impact of ROE on Stock Price

According to the partial hypothesis test results, the calculated value is less than the table value ($-2.181 < 2.001$) and the significance level is greater than 0.05 ($0.033 > 0.05$). This suggests that the Return on Equity (ROE) partially does not affect the stock price of food and beverage companies on the IDX. This finding contradicts the research of Yulianti and Khairunna (2020), who found that ROE has a significant partial impact on the stock price. In other words, ROE, which is a performance metric that compares net income after tax to equity, does not have an impact on changes in stock price.

5. Conclusions

The partial hypothesis test results, the calculated value is greater than the table value ($4.201 > 1.981$), and the significance level is less than 0.05 ($0.000 < 0.05$). The Return on Equity (ROE) partially impacts the stock price of food and beverage companies on the Indonesia Stock Exchange (IDX). From the partial hypothesis test results, the calculated value is less than the table value ($0.202 < 1.981$), and the significance level is greater than 0.05 ($0.841 > 0.05$). The Debt to Equity Ratio (DER) does not have a partial impact on the stock price of food and beverage companies on the IDX. From the partial hypothesis test results, the calculated value is less than the table value ($-0.858 < 1.981$), and the significance level is greater than 0.05 ($0.392 > 0.05$). The Net Profit Margin (NPM) does not have a partial impact on the stock price of food and beverage companies on the IDX. From the simultaneous hypothesis test results, the calculated F value (15.828) is greater than the table F value (2.68), and the significance probability is less than 0.05 ($0.000 < 0.05$). This indicates that ROE, DER, and NPM simultaneously affect the stock price of food and beverage companies on the IDX.

References

- Alipudin, Asep dan Resi Oktaviani. 2016. Pengaruh EPS, ROE, ROA, dan DER Terhadap Harga Saham Pada Perusahaan Sub Sektor Semen Yang Terdaftar di BEI. *Jurnal*.
- Ariesa, Y., Pricylia, C., Chen, F., & Fahlevi, M. (2023). Pengaruhi Rasioi Profitabilitas, Rasio Likuiditasi Dan Rasioi Leverage Terhadap Mandatory Disclosure Yangi Di Moderator Firm Size (Studi Perusahaan BUMN 2010–2020). *Journal of Economic, Bussines and Accounting (COSTING)*, 6(2), 2390-2401.
- Cahyani, Noerlita dan Herry Winarto. 2017. Pengaruh Return on Equity, Earning Per Share, dan Debt to Equity Ratio Terhadap Harga Saham Pada PT Medco Energi Internasional Tbk. *Jurnal*.
- Diana, Shinta Rahma. 2018. *Analisis Laporan Keuangan dan Aplikasinya*. Bogor : In Media. Egam, Gerald Edsel Yermia, Ventji Ilat dan Sonny Pangerapan. 2017. Pengaruh Return on Asset (ROA), Return on Equity (ROE), Net Profit Margin (NPM), dan Earning Per Share (EPS) Terhadap Harga Saham Perusahaan Yang Tergabung Dalam Indeks LQ45 Di Bursa Efek Indonesia Periode Tahun 2013-2015. *Jurnal*.
- Fahmi, Irham. 2017. *Analisis Laporan Keuangan*. Bandung : Alfabeta. Ghazali. 2017. *Uji normalitas*.
- Hani, Syafrida. 2015. *Teknik Analisa Laporan Keuangan*. Medan : UMSU Press.
- Heri. 2016. *Analisis Laporan Keuangan*. Jakarta : PT Gramedia Widiasarana Indonesia. Kasmir. 2012. *Analisis Laporan Keuangan*. Jakarta : PT Rajagrafindo Persada.
- Kurniawan dan Yuniarto. 2016. *Koefisien Determinasi dan Uji Parsial*
- Maeenuddin, Hamid, S. A., Fahlevi, M., Nassir, A. M., & Hashim, P. M. (2023). Predictors of microfinance sustainability: Empirical evidence from Bangladesh. *Cogent Economics & Finance*, 11(1), 2202964.
- Meiryani, Huang, S. M., Soepriyanto, G., Jessica, Fahlevi, M., Grabowska, S., & Aljuaid, M. (2023). The effect of voluntary disclosure on financial performance: Empirical study on manufacturing industry in Indonesia. *Plos one*, 18(6), e0285720.
- Priyastama. 2017. *Uji Multikolinieritas dan Uji Heteroskedastisitas*
- Putra, Andika Sutoro. 2018. *Anak Muda Miliarder Saham*. Jakarta : PT Elex Media Komputindo.
- Ramadhayanti, Ana. 2019. *Aplikasi SPSS untuk Penelitian dan Riset Pasar*. Jakarta : PT Elex Media Komputindo.

- Sujarweni, V. Wiratna. 2017. *Manajemen Keuangan Teori, Aplikasi dan Hasil Penelitian*. Yogyakarta : Pustaka Baru Press.
- Wardiyah, Mia Lasmi. 2017. *Analisis Laporan Keuangan*. Bandung : CV Pustaka Setia