

Effect of Current Ratio (CR) and Debt to Equity Ratio (DER) on Return on Assets (ROA) in Food Sub-Sector and Drinking Companies Listed in Indonesia Stock Exchange Period 2013-2016

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Abstract: *This study aims to determine the effect of the current ratio and the debt to equity ratio on return on assets, both partially and simultaneously in the food and beverage sub-sector companies listed on the IDX. The population in this study is the financial statements in the food and beverage sub-sector listed on the Indonesia Stock Exchange. The data collection techniques used are the documentation method and the library method. The method of data analysis uses descriptive and associative analysis, namely the correlation test, determination coefficient, hypothesis, and regression analysis. The results of the calculation of t count and t table for X1 against Y are $4.720 > 2.05552$ This means that the partially return on assets has an effect on and is significant to the current asset. The results of the calculation of t count and t table for X2 against Y are $-4,387 < 2,05552$ means that partially return on assets has a negative and significant effect on the debt to equity ratio. From the results of the hypothesis test, it is known that the calculation is 14,361 with sig. 0,000 with an error rate of 5% (0.05), because of the sig value. much smaller than 0.05 then H_0 is rejected and determines f table df: $n-k-1: 28-2-1 = 25$, then it can be obtained by the table of 2.05954. Because $f_{count} > f_{table}$, it can be concluded that H_0 is rejected and H_1 is accepted which means there is a simultaneous influence on the ROA variable*

Keywords: Current Ratio, Debt To Equity Ratio, Return On Asset.

1. Introduction

Factors influencing company profitability are company liquidity. Liquidity is a ratio that takes into account the company's cash relationship and other current assets against its current liabilities. Liquidity plays an important role in the price of an asset if the number of current assets is too small so that the company will not liquid, whereas if the amount of current assets is too large it will result in idle cash, all of this will affect the company's operations. The liquidity ratio used is the Current Ratio (current ratio). Current Ratio is a ratio that measures a company's ability to meet its short-term debt by using its current assets. The current ratio is calculated by dividing current assets and current liabilities. Current assets generally include cash, securities, accounts receivable, and inventories.

The solvability ratio measures the ability of a company to fulfill its long-term obligations. Companies that are not solvable are companies whose total debt is greater than the total assets. This ratio focuses on the right side or company obligations. The solvency ratio used is the Debt To Equity Ratio. Debt to Equity Ratio is a ratio that compares the amount of debt to equity, and DER can be reflected in the company's ability to fulfill all its obligations as indicated by some part of its capital used to pay off debt. This ratio is often used by analysts and investors to see how much the company's debt is compared to the equity held by the company or its shareholders. The higher the DER number, it is assumed that the company has a higher risk of the liquidity of the company. Debt to Equity Ratio measures the percentage of total funds provided by creditors with the

capital owned by the debt company which is meant here is current debt and long-term debt.

A profitability ratio is a ratio to assess a company's ability to make a profit. Ratios that can be used to assess profitability include the net profit margin, gross profit margin, operating profit margin, return on assets (ROA), and Return On Equity (ROE). But the ratio used in this study is Return On Assets (ROA). Return on assets is a ratio used to measure a company's ability to generate profits by using the company's total assets. The number of food and beverage companies listed on the Indonesia Stock Exchange is quite a lot compared to companies in other fields.

Based on the research problems above, the research objectives are as follows: a). To find out the Effect of Current Ratio (CR) on Return On Assets (ROA) in the Food and Beverage Sub-Sector Companies listed on the Indonesia Stock Exchange Period 2013-2016, b). To find out the Effect of Debt To Equity Ratio (DER) on Return On Assets (ROA) in the Food and Beverage Sub-Sector Companies listed on the Indonesia Stock Exchange for the 2013-2016 Period. c). To determine the Effect of Current Ratio (CR) and Debt To Equity Ratio (DER) on Return On Assets (ROA) in the Food and Beverage Sub-Sector Companies listed on the Indonesia Stock Exchange for the 2013-2016 Period.

2. Literature

Four categories of ratios used to measure various aspects of the relationship of risk and return: [1]

- (1) Liquidity analysis: measuring the adequacy of the company's cash resources to meet liabilities related to cash in the short term
- (2) Solvency analysis and long term debt (leverage): examine the company's capital structure, including long-term funding sources and the company's ability to fulfill long-term debt and investment obligations
- (3) Activity analysis: evaluates revenue and output produced by assets company.
- (4) Profitability analysis: measures the company's earnings (earnings) relative to revenue(sales) and invested capital

Current Ratio is a ratio to measure a company's ability to pay short-term liabilities or debts that are immediately due when billed as a whole. In other words, how many current assets are available to cover short-term liabilities that are immediately due. The current ratio can also be said as a form to measure the level of security of a company [2]

Current Ratio is a comparison between current assets and current liabilities. Current assets consist of cash, marketable securities, accounts receivable, and inventory. While current debt consists of trade payables, notes payable, tax payable, salary/wages payable, and another short-term deb [3]

Debt to equity ratio is an attempt to show the relative proportion of lenders to ownership rights and is used as a measure of the role of debt [4]

Debt Ratio is a debt ratio used to measure the ratio between total debt and total assets. While the Debt To Equity Ratio is the ratio used to assess debt with equity. This ratio is sought by comparing all debt, including current debt with all equity [2]

Return on assets is a measure of a company's ability to generate high profits at a certain level of sales [5]

3. Method

The concept of research is designed to provide boundaries of understanding of research variables, while operational concepts are intended to understand the meaning of each research variable before analysis, instruments, and sources of measurement are carried out.

The population in this study is the financial statements of the food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the period 2013-2016. Sampling technique is a sampling technique to determine the sample to be used in research, (Sujarweni, 2015: 85). The sampling technique in this study was using a purposive sampling technique, namely the technique of determining samples with certain considerations. Purposive sampling is suitable for quantitative research or studies that do not generalize, and certain considerations relating to confidential data in the food and beverage sub-sector, namely available financial statements per year, financial statements in the form of balance sheets, income statement, time and cost limitations and financial reports provided to researchers only in the last 4 (four) years

The benefits of descriptive analysis can provide convenience regarding information about the current ratio (CR), debt to equity ratio (DER), to return on assets (ROA) in food and beverage sub-sector companies, both on average, minimum, maximum, and standard deviation.

The calculation used is a calculation using the Pearson product-moment correlation and multiple correlations. The results of the coefficient of determination analysis can be seen in the output model summary of the results of multiple regression analysis. For the coefficient of simultaneous determination with regression more than two independent variables are used Adjusted R2 as the coefficient of determination. Adjusted R2 is the adjusted R Square value, generally used if there are three or more variables. The square of R shows the coefficient of determination. This number will be converted into percent form, which shows the percentage contribution of the independent variable to the dependent variable. while the remainder is influenced by other variables not included in the model

4. Result and Discussion

The total food and beverage sub-sector companies listed on the Indonesia Stock Exchange were 18 companies, the authors took 11 companies with sharia shares and there were 4 companies with incomplete data in the study year. So the number of companies sampled is 7 companies with 4-year consecutive observations so that the observation data is 28 data.

4.1 Correlation Coefficient Test

Correlation analysis is one of the analytical techniques in statistics used to find relationships between two quantitative variables.

- a) Correlation Coefficient between CR (X1) with ROA (Y)

Table 4.1: Correlation Coefficient between X1 with Y

Correlations			
		DER	ROA
DER	Pearson Correlation	1	-.679**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross products	176477.117	4699.987
	Covariance	6536.190	174.074
	N	28	28
ROA	Pearson Correlation	.679**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross products	4699.987	271.227
	Covariance	174.074	10.045
	N	28	28

** Correlation is significant at the 0.01 level (2-tailed)

Source: data processed in 2018

The calculation results between the CR variables (X1) on ROA (Y) obtained a correlation coefficient of 0.679 with a positive direction which means the level of the relationship between CR and ROA is strong. A positive correlation indicates if, Current Ratio (X1) increases then Return On Assets (ROA)

b) The Correlation Coefficient between DER (X1) with ROA (Y)

Table 4.2: Correlation Coefficient between DER (X1) with ROA (Y)

Correlations			
		DER	ROA
DER	Pearson Correlation	1	-.652**
	Sig. (2-tailed)		.000
	Sum of Squares and Cross products	3.508	-20.117
	Covariance	.130	-.745
	N	28	28
ROA	Pearson Correlation	-.652**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross products	-20.117	271.227
	Covariance	-.745	10.045
	N	28	28

** Correlation is significant at the 0.01 level (2-tailed)

Source: data processed in 2018

The calculation results between DER variables (X2) on ROA (Y) obtained a correlation coefficient of -0.652 with a negative direction which means the level of the relationship between DER and ROA is very low. A negative correlation indicates the opposite between variables X2 and Y if, Debt To Equity Ratio (X2) increases, Return on Assets (ROA) will decrease

c) The correlation coefficient between CR (X1), DER (X2), with ROA (Y)

Table 4.4: Correlation Coefficient between CR Variables, and DER with Variable ROA

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731 ^a	.535	.497	2.24693

a. Predictors: (Constant), DER, CR

Source: data processed in 2018

The calculation results between the variables CR (X1), and DER (X2) on ROA (Y) simultaneously obtained a correlation coefficient value of 0.731 with a positive direction which means the level of the relationship between CR, and DER to ROA simultaneously is strong. A positive correlation indicates if, Current Ratio (X1), and Debt to Equity Ratio (X2) increase, Return on Assets (ROA) will increase

5. Conclusion & Implication

This research was conducted to analyze the effect of Current Ratio (CR) and Debt To Equity Ratio (DER) on Return On Assets (ROA) in food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2013-2016 period. Based on the results of the research and analysis of the discussions that have been conducted, conclusions can be taken as follows:

- a) Partially, it shows that the Current Ratio (CR) has a positive and significant effect on Return on Assets (ROA) in the food and beverage sub-sectors listed on the Indonesia Stock Exchange for the period 2013-2016.
- b) Partially, it shows that Debt to Equity Ratio (DER) has a negative and significant effect on Return on Assets

(ROA) in the food and beverage sub-sector listed on the Indonesia Stock Exchange.

- c) Simultaneously shows that the Current Ratio and Debt To Equity Ratio have a significant influence on Return On Assets (ROA) in the food and beverage sub-sectors listed on the Indonesia Stock Exchange for the period 2013-2016.

5.1 Determination Coefficient Test

Shows the percentage effect of all independent variables on the dependent variable. The coefficient of determination is 0-1.

Table 4.5: The Determination Coefficient between CR Variables and Variable ROA

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.679 ^a	.462	.441	2.37013

a. Predictors: (Constant), CR

Source: data processed in 2018

It appears R Square of 0.462 means that the determination coefficient value of the CR variable on the ROA variable is 46.2% while the remaining 53.8% is influenced by other factors not examined in this study.

Table 4.6: Determination Coefficient between DER (X2) with ROA (Y)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.652 ^a	.425	.403	2.44838

a. Predictors: (Constant), DER

Source: data processed in 2018

R Square of 0.425 means that the coefficient of determination of the DER variable on the ROA variable is 42.5% while the remaining 57.5% is influenced by other factors not examined in this study.

Table 4.7: Determination Coefficient between CR Variables and DER Variables with Variable ROA

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731 ^a	.535	.497	2.24693

a. Predictors: (Constant), DER, CR

Source: data processed in 2018

R Square of 0.535 means that the coefficient of determination of the variable CR, and DER simultaneously on the variable ROA of 53.5% while the remaining 46.5% is influenced by other factors not examined in this study

6. Future Research

This study still has many limitations, therefore it is expected that the next research is as follow:

- a) The next researcher is expected to be able to examine other variables, apart from these variables to obtain more varied results that can identify what things can affect Return On Assets (ROA)

- b) This study only took a sample of 7 (seven) companies, further research could be better able to take more samples and populations or longer periods (over 4 years).

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