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Current Ratio and Debt to Equity Ratio to The Profitability of Food and Beverage Companies Listed on Indonesia Stock Exchange (IDX)

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Abstract

This study aims to determine the effect of current ratio and debt to equity ratio on return on assets in food and beverage sub-sector companies listed on the Indonesia Stock Exchange. The sampling technique used purposive sampling method, the population was 24 food and beverage companies listed on the IDX during the study period, and there were 17 companies that met the requirements to be sampled. The data were analyzed using Multiple Linear Regression and data analysis used data processing software, called eviews 8. The results of this study indicate that the two independent variables tested on the return on assets of companies in the food and beverage sub-sector, the current ratio variable has a regression coefficient of 0.001740 and the level of significant at 0.6886. This means that H1 is rejected, and it can be said that the Current Ratio (CR) has no significant effect on Return On Assets (ROA). The variable Debt to Equity Ratio (DER) has a regression coefficient of -0.001027 and the significant value of 0.0010. This means that H2 is accepted and it concluded that the Debt To Equity Ratio (DER) has a negative and significant effect on Return On Assets (ROA).

Keywords: *Current Ratio, Debt to Equiy Ratio and Return On Assets*

INTRODUCTION

The food and beverage industry is still one of the mainstay sectors that supporting manufacturing growth and national economy. The important role of this strategic sector can be seen from its consistent and significant contribution to Gross Domestic Product (GDP), non-oil and gas industry as well as increasing the investment realization. The government needs to maintain the availability of raw materials needed by the food and beverage industry in making this industry more productive and globally competitive.

In the fourth quarter of 2019, the food and beverage industry had an anomaly growth, usually the performance of this industrial sector grewin the last quarter of the year, but in the fourth quarter of 2019 the growthrealization was stagnant and even slowed down. The global economic conditions and depressed commodity export performance affected to people's purchasing power. Many commodities had a decline in sales, both in volume and price. At the beginning of 2019, the government set a growth target for food and beverage sector at 9%, but it was revised to 8% since the performancerealization in the first half of 2019 was only 7.4%, it is decreasing along with the declining purchasing power of middle and lower class consumers.

The weakening of rupiah exchange rate has an impact on food and beverage industry performance since this industry still relies on imported raw materials, and this affects production costs and company profits. A company aims to maintain the sustainability of its company and achieve optimal profit. The company must be able to improve its business performance. Every company aims to obtain maximum profit in order to have good profitability. The profit is used as a measure of company performance that can be achieved and used as a basis for making investment decisions. The level of profitability describes the company's performance as seen from the company's ability to generate the profits. The company's ability to earn the profit indicates that the company has good prospects in the future.

The profitability in this research is proxied by Return on Assets (ROA) because it can show how the company's performance as seen from the assets uses. Every company needs to know the assets return to measure the efficiency in converting the money used to buy assets into net income. The companies also need to understand ROA well in measuring the profit.

Current Ratio (CR) is used to measure the company's ability to pay due of short-term obligations. When the current ratio is low, it means that the company is lack of capital to pay its debts which are due soon; however, when the current ratio is high, it does not mean that the company's condition is in good condition.

Solvency ratio is a ratio used to measure the extent to which the company's assets are financed with debt. This means the amount of debt used by the company to finance its business activities when compared to using its own capital. The solvency ratio used by researchers in this research is the Debt to Equity Ratio that measures the company's ability to pay its long-term obligations, the lower the ratio, the better the company's ability to pay its long-term obligations. This can happen because the cash is not used as well as possible.

According to (Marbun, 2016)in a “case study of PT. Bank Mandiri (Persero) Tbk" for the period 2008-2015 states that the statisticaltests results show that the first hypothesis (H1), called Current Ratio has a significant effect on Return on

Assets that seen from the t-count value for the liquidity variable (X2) is 2.967 > 1.645. It concluded that the first hypothesis in this research is accepted. Based on the results of statistical tests, the results show that the first hypothesis (H1), called Debt to Equity Ratio has a significant effect on Return On Assets, which seen from the t-count value for the leverage variable (X2) is 1.745> 1.645 with a significance of 0.025 <0.05.

According to Cunengsih (2018) in a "case study of PT. Midi Utama Indonesia, Tbk" for the period 2010-2016 states that the results of this research show that the debt to equity ratio variable partially has no significant effect on return on assets variable, and the current ratio variable partially has no significant effect on return on assets variable.

From the tests that have been conducted by various previous researchers (Alifiana & Indah, 2021), there are still many differences for each of it since not all research results have a positive and significant impact on Return on assets variable. This research will re-examine and search for empirical evidence on the effect of Current Ratio and Debt to Equity on the Return On Assets of manufacturing companies of food and beverage sub-sector listed on the Indonesia Stock Exchange for the 2017-2019 period.

Current assets for food and beverage companies listed on the Indonesia Stock Exchange (IDX) for the 2017-2019 periods indicate that the company which had the highest increase in current assets is PT. Indofood Sukses Makmur, Tbk (Puspaninggiri, 2021). Meanwhile, the companies that had a decrease in current assets every year and the lowestassets is PT Sentra Food Indonesia, Tbk. Then, the company which has the highest total debt for each year is PT. Indofood Sukses Makmur, Tbk.

The highest value of net profit is owned by PT. Indofood Sukses Makmur, Tbk. Although INDF had a decrease in net profit in 2018 to 2.6% due to slow purchasing power, the company was able to increase the quite large net profit in 2019 which was 19.0% due to improved operational performance and also supported by net profit on foreign exchange from financing activities. The company which had low net income and decreased profit in every year is PT. SekarBumi, Tbk. SKBM recorded that its profit had decreased in 2018 and 2019. Based on the explanation above, this research have a purpose to determine the effect of current ratio and debt to equity ratio on return on assets in food and beverage sub-sector companies listed on the Indonesia Stock Exchange

RESEARCH METHODOLOGY

This research uses two variables, independent variable (free) and dependent variable (bound). The independent variable X (free) and the dependent variable Y (bound). The independent variables used in this research are Current Ratio (CR) and Debt to Equity Ratio (DER). The independent variable used in this research is Return On Assets (ROA) as Y variable.

The population in this research is food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange in 2017-2019 with total of 24 companies. The determination of the sample uses a purposive

sampling technique. The criteria used to determine the sample in this study stated in the following table below:

Table 1. Analysis Criteria

Criteria	Number of Companies
Food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange in 2017-2019	24
Companies that do not complete the financial statements during 2017-2019	(2)
Companies that suffered losses during 2017-2019	(5)
Companies in total	17

Source: Data taken from IDX and processed by the researcher.

Based on the criteria in the table above, the sample that will be used in this research is 17 samples.The data analysis technique used in this research is multiple linear regression analysis with Eviews 8 software.
The use of panel data regression test with the following equation below:

$$Y_{it} = a_{it} + \beta 1it\ X1_{it} + \beta 2it\ X2_{it} + e_{it}$$

Description:
Y = Return On Assets
a = Constant
β 1-β2 = Regression coefficient of each independent variable
X_1= Current Ratio
X_2= Debt to Equity Ratio
e = Error
i = Individual
t = Time/Year

In estimating the model parameters is usinng panel data, there are three techniques (models) used in this research, such as: Common Effect Model, Fixed Effect Model and Random Effect Model.

Data Panel Model Selection

In choosing the most appropriate regression model to use, there are two stages in the panel data model selection, including:

a) Chow Test.

The Chow test is used to compare the Fixed Effect or Common Effect models which are more appropriate to use. According to (Jaswadi et al., 2015) in conducting the Chow test using EViews, the likelihood ratio can be used. To determine a better model between CE and FE, it can be seen from the probability value for Cross-section F. When the value is > 0.05 then the selected model is CE, but when the value is < 0.05 then the selected model is FE.

b) Hausman Test

Hausman test was conducted to find out which Fixed Effect or Random Effect model is more appropriate in this research. The hypothesis used is as follows:

H0 = Random Effect Model
H1 = Fixed Effect Model

When the chi-square > chi-square table H0 is rejected, it means that the model used is a fixed effect model. When the chi-square count < chi-square table means that H1 is rejected, it means that the model used is a fixed effect model.The hypothesis test is using t test (Partial Testing). The t test is used to examine the independent variables individually with a dominant influence with a significance level of 5%.

RESULT AND DISCUSSION

The food and beverage industry is one of the industries that subsidy the Indonesian industrial world. The food and beverage industry is one of the mainstay manufacturing sectors in making major contribution to national economic growth. Its performance has been consistently positive, starting from its role in increasing productivity, investment, exports, until employment. In this research, the objects used are food and beverage industry companies listed on the Indonesia Stock Exchange (IDX).

The results of the current ratio calculation show that the average company that has the highest average value is PT. Campina Ice Cream, Tbk (CAMP) which is 1309.7%. While the company that has the lowest average value is PT. Multi Bintang Indonesia, Tbk (MLBI) which is equal to 77.9%. The calculation results of the debt euity to ratio show the company which has the highest average value is PT Sentra Food Indonesia, Tbk (FOOD) with 383.5%. While the company that has the lowest average value is PT. Delta Djakarta, Tbk (DLTA) with 17.9%. The highest average profitability value is PT. Multi Bintang Indonesia, Tbk (MLBI) that is equal to 45.6%. While the company that has the lowest average value is PT. SekarBumi, Tbk (SKBM) with 0.8%.

Descriptive statistics is a statistical analysis that provides a general characteristics description of each research variable as seen from the average

(mean), maximum, and minimum values. The description of each research variable can be seen in the table below.

Table 2. Descriptive Statistical Analysis Result

	ROA	DER	CR
Mean	10.61373	98.86078	306.1843
Median	8.300000	61.70000	184.8000
Maximum	52.70000	959.8000	1582.200
Minimum	0.100000	13.10000	49.30000
Std. Dev	10.43805	151.6080	316.6462
Observations	**51**	**51**	**51**

Source: Secondary Data processed, 2021

Descriptive statistical analysis, the research observation value is 51 data which is the number of samples during the 2017 to 2019 research period can be explained as follows: The average return on assets during the 2017 to 2019 observation period is 10,61373. The highest return on assets value is 52.70000 and the lowest return on assets is 0.100000, where the standard deviation value of the return on assets variable is 10,43805. The average debt to equity ratio during 2017 to 2019 observation period is 98,86078. The highest debt to equity ratio value is 959,8000 and the lowest debt to equity ratio value is 13.10000. The standard deviation value of the debt to equity ratio variable is 151.6080. The average current ratio during 2017 to 2019 observation period is 306.1843. The highest current ratio value is 1582.200 and the lowest current ratio is 49.30000 where the standard deviation value of the current ratio variable is 316,6462.

Panel Regression Analysis

1. Panel Data Regression Model Selection

Panel data regression can be conducted with three analytical models, such as common effect, fixed effect, and random effect. The following are the results of the three existing models:

1. Common Effect Model

The first test is conducting through common effect test; the following table is the results obtained from the common effect test:

Table 3. Common Effect Model Panel Data Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CR	0.000908	0.004976	0.182538	0.8559
DER	-0.009180	0.010392	-2.883354	0.0000
R-squared	0.616209			
Adjusted R-squared	0.574782			
Durbin-Watson stat	2.270613			

Source: Secondary Data, 2021

2. Fixed Effect Model

After being tested through common effects model, the further tested is conducted using fixed effects. The following are the results obtained from the fixed effect:

Table 4. Fixed Effect Model Panel Data Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.43238	1.613175	7.086884	0.0000
CR	0.002414	0.004952	0.487397	0.6293
DER	-0.000806	0.003074	-2.262069	0.0049
R-squared	0.964627			
Adjusted R-squared	0.944729			
F-statistic	48.48004			
Prob(F-statistic)	0.000000			
Durbin-Watson stat	2.381953			

Source: Secondary Data processed, 2021

After obtaining the regression result from common effect and fixed effect models, the next step is to conduct a test to determine which estimation model is more appropriate between common effect and fixed effect models. In determining the models, the chow test is used for selecting panel data regression models.

Chow test is a test to determine which model of common effect or fixed effect is more appropriate to use in estimating panel data. The hypothesis in chow test is that if the probability of chi-square <0.05 then the chosen one is a fixed effect. When the probability of chi-square is > 0.05, then the common effect will use to estimate the panel data.

When the common effect model is used based on the test result, then there is no need to conduct the Hausman test. However, when the results of Chow test determine the fixed effect model to be used, it is necessary to implement the further tests, called Hausman test to determine the fixed effect or random effect model used.

Table 5. Chow Test Result

Redundant Fixed Effects Tests			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	53.623568	(16,32)	0.0000
Cross-section Chi-square	169.598450	16	0.0000

Source: Secondary Data processed, 2021

The results in table below indicated how the probability of chi-square is 0.0000 and lower than 0.05. According to decision criteria, this model uses a fixed effect model. Since the Chow test was selected using a fixed effect model, it is necessary to conduct further testing with Hausman test to determine which fixed effect or random effect model is used.

Table 6. Random Effect Panel Data Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.24792	2.999448	3.749999	0.0005
CR	0.001740	0.004315	0.403187	0.6886
DER	-0.001027	0.003058	2.335922	0.0010
Weighted Statistics				
R-squared	0.705292			
Adjusted Rsquared	0.636155			
F-statistic	14.15673			
Prob(F-statistic)	0.000019			
Durbin-Watson stat	1.898128			
Unweighted Statistics				
R-squared	-0.000342			
Sum squared resid	5449.505			
Durbin-Watson stat	0.786992			

Source: Secondary Data processed, 2021

Hausman Test Result

Correlated Random Effects - Hausman Test			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.605449	2	0.7388

Source: Secondary Data processed, 2021

In determining the Hausman test result is to assess the probability of chi-square, when <0.05 then the model used is a fixed effect, but when the probability is > 0.05 then the model used is a random effect. In table 4.3.5 the results show the probability of chi-square value is 0.7388, it means that the Hausman test results chose to use the random effect model.

Coefficient of Determination (R^2)

The coefficient of determination is used to measure how far the model's ability to explain the variation of the dependent variable. The value of R^2 placed between 0 to 1 ($0 < R^2 < 1$). The R^2 value that is close to 1 means that the independent variables provide almost all the information needed to predict the variation of dependent variable. While the value of R^2 which is close to 0 means the ability of the independent variables to explain the variation of dependent variable is very limited.

Table 7. Coefficient of Determination Test Results

R-square	Adjusted R-square
0.705292	0.636155

Source: Secondary Data processed, 2021

Based on table 4.4 above, it can be seen that the effect of the coefficient of determination on the current ratio and debt to equity ratio on return on assets is 0.705292. This shows that the effect of the current ratio and debt to equity ratio on return on assets is 70%, while 30% is influenced by other factors outside this regression model.

Table 8. t Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.24792	2.999448	3.749999	0.0005
CR	0.001740	0.004315	0.403187	0.6886
DER	-0.001027	0.003058	2.335922	0.0010

Source: secondary data processed 2021

The results of the t-statistical test in the table above can be explained as follows:

The Effect of Current Ratio on Return On Assets

For the criteria, the t test is conducted at the level of $\alpha = 0.05$ with the t value for n = 51-2 = 49 is 2.00958. The t_{count} value for the Current Ratio is 0.403187 and the t_{table} is known to be 2.00958 (0.403187 <2.00958). The regression coefficient value of current ratio is positive with 0.001740 and the significance level of 0.6886 (sig. 0.6886> 0.05). Based on the decision-making criteria, it can be concluded that Ha in is rejected and H_0 is accepted. Then in this research, the Current Ratio partially does not have a significant effect on Return on Assets in food and beverage sub-sector companies.

The Influence of Debt to Equity Ratioto Return On Assets

For the criteria, the t test is conduct at the level of $\alpha = 0.05$ with the t value for n = 51-2 = 49 is 2.00958. The t_{count} value for the Debt to Equity Ratio is 2.335922 and the t_{table} is 2.00958 (2.335922 > 2.0958). While the regression coefficient value of the current ratio is negative -0.001027 with the significance level of 0.0010 (sig. 0.0010 < 0.05). Based on the decision-making criteria, it can be concluded that Ha is accepted and H_0 is rejected. Then in this research, the Debt to Equity Ratio partially has a significant negative effect on Return on Assets in food and beverage sub-sector companies.

Regression analysis that has been examined through panel data regression random effects model aims to determine the relationship between the current ratio and debt to equity ratio variables on the return on assets of food and beverage industry sub-sector companies listed on the BEI. The following is a table that summarizes the relationship that occurs in the independent variable to the dependent variable.

Table 9. Relationships of Independent Variables on Return on Assets

Variables	Influencethat Found	Significance
CR	No effect	Not significant
DER	Negative effect	Significant

Current Ratio is one of the liquidity ratios that aim to measure the company's ability to pay its short-term obligations. In the food and beverage sub-sector companies, on average, have a high current ratio value. A high current ratio of a company will reduce uncertainty for investors, but indicates that there are idle funds that will reduce the company profitability level. The idle funds are due to the company placing large funds on the current assets side. In general, companies in food and beverage sub-sector have a current asset value that bigger than the current debt value. The fund placement that are too large on the asset side means that the company's liquidity is getting better, but on the other hand, the company loses the opportunity to get additional profits since the funds that should be used for investments in adding benefit to the company are used for company liquidity.

Based on the results of this research, it shows that the current ratio has no significant effect on return on assets in the food and beverage sub-sector listed on the IDX for 2017-2019 periods. This is because the t_{count} value for the Current Ratio is 0.403187 and the t_{table} is 2.00958 (0.403187 <2.00958). The regression coefficient value of the current ratio is positive 0.001740 with the significance level of 0.6886 (sig. 0.6886 > 0.05). Based on the decision-making criteria, it can be concluded that Ha is rejected and H_0 is accepted.

From the results of this research, it can be concluded that any increase in the current ratio in food and beverage companies is not followed by an increase in ROA. The high current ratio can be caused by uncollectible accounts receivable or unsold inventory, which of course cannot generate any cash. The unsold inventories and uncollectible receivables will hamper the company's operating activities, and it is not certain in increasing profits by the company. The current ratio that is too high also not good for the company because it shows a lot of idle funds which can ultimately reduce the company's profit capability, thus the current ratio must be maintained as remains stable for not to reduce the company's profitability.

The results of this study are in line with the research of (Solihin, 2019) which states that the current ratio has no significant effect on return on assets, and this research is not in line with (Ilham, 2020) which states that the current ratio has a significant effect on return on assets.

Debt to Equity Ratio is the company's ability to fulfill its obligations through the company's own capital. When the Debt to Equity Ratio increases, the ROA will decrease or vice versa. This is presumably because when the debt ratio is high, the interest expense rate will also increase, and this will reduce the company's profits. The higher the Debt to Equity Ratio indicates the higher the use of liabilities as a source of corporate funding. This can cause the considerable risk to the company when the company is unable to pay these obligations in the due date. This will disrupt the continuity of the company's operations. In addition, the company will be faced with high interest costs and able to reduce company profits.

Based on the results of the research, the debt to equity ratio variable has an influence on the return on assets of food and beverage industry sub-sector companies in 2017-2019 periods. This is because the t_{count} value for the Debt to Equity Ratio is 2.335922 and the t_{table} is 2.00958 (2.335922 > 2.0958). The regression coefficient value of the current ratio is negative -0.001027 with the significance level of 0.0010 (sig. 0.6886 <0.0010). Based on decision making criteria, it can be concluded that Ha is accepted and H_0 is rejected.

The results of testing this hypothesis can be interpreted that the debt to equity ratio can be the basis for determining the profitability of companies in the food and beverage sub-sector. The negative DER coefficient on ROA shows that when DER increases, the ROA of food and beverage sub-sector companies will decrease, and vice versa when DER decreases, ROA will increase. The low debt to equity ratio in food and beverage sub-sector companies indicates more stable business conditions financially. Unlike equity financing, the debt must be repaid to the lender. The companies that take advantage of large amounts of debt may be at risk of not being able to pay off debt and interest on the loans made. This indicates that debt is inversely proportional to ROA. When the debt to equity ratio

is lo, the low debt can increase profits since the company does not have to bear interest expenses and reduces the risk of financial distress.

The results of this study are in line with research from (Chabachib, 2016) which states that the debt to equity ratio has a negative and significant influence on return on assets, and this research is not in line with research from (Wahyuni, 2018) which states that debt to equity equity ratio has no effect on return on assets.

CONCLUSION

Based on the results of the research, it was obtained that the Current Ratio (CR) variable had a regression coefficient of 0.001740 and a significance value of 0.6886 > 0.05. It can be concluded that the first hypothesis in this research was rejected, meaning that the results of this study indicate that the current ratio (CR) has no significant effect on return on assets (ROA).

The regression coefficient owned by Debt to Equity Ratio (DER) variable is -0.001027 and the significance value of 0.0010 < 0.05. Then, it can be concluded that the second hypothesis in this research is accepted, meaning that the results of this research indicate that the debt to equity ratio (DER) has a negative and significant effect on return on assets (ROA).

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