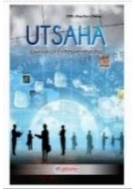

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Current Ratio and Debt to Equity Ratio to the Profitability of Food and Beverage Companies Listed on Indonesia Stock Exchange (IDX)

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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, Return on Assets*

INTRODUCTION

The food and beverage industry remains a key sector supporting manufacturing growth and the national economy. This sector's strategic importance is evident from its consistent and significant contributions to Gross Domestic Product (GDP), the non-oil and gas industry, and increasing investment realization. To enhance productivity and global competitiveness, the government must ensure the availability of raw materials critical to this industry.

In the fourth quarter of 2019, the food and beverage industry experienced an anomaly in growth. Typically, this sector sees growth in the year's final quarter, but in Q4 2019, growth stagnated and even slowed. Global economic conditions and weakened commodity export performance affected purchasing power, leading to declines in both the volume and price of various commodities. Initially, the government set a 9% growth target for the sector in 2019, but this was revised to 8% after the first half of the year, where growth realization only reached 7.4%. The slowdown was largely attributed to declining purchasing power among middle- and lower-class consumers.

The weakening of the rupiah also impacted the industry's performance due to its reliance on imported raw materials, increasing production costs and reducing profits. Companies in this sector must focus on maintaining sustainability and improving profitability to stay competitive. Profitability serves as a key indicator of business performance, reflecting a company's ability to generate profit and make sound investment decisions. A company's ability to consistently earn profits indicates promising future prospects and solid business performance.

Profitability in this research is proxied by Return on Assets (ROA) because ROA can show the company's performance based on the utilization of its assets. Every company needs to know the return on its assets to measure the efficiency of converting the money spent on purchasing assets into net income. A good understanding of ROA is also necessary to assess the company's ability to generate profit.

Current Ratio (CR) is used to measure the company's ability to pay short-term obligations that are due. A low current ratio indicates that the company lacks capital to pay its debts that are soon due. However, a high current ratio does not necessarily mean that the company is in a good financial condition.

The solvency ratio is used to measure the extent to which a company's assets are financed by debt. It shows the amount of debt used by the company to fund its operations in comparison to its own capital. The solvency ratio used in this research is the Debt to Equity Ratio (DER), which measures the company's ability to pay its long-term obligations. The lower the ratio, the better the company's ability to meet its long-term liabilities. However, this may also indicate that the company is not utilizing its cash as effectively as possible.

According to Marbun (2016) in the study titled "Case Study of PT. Bank

Mandiri (Persero) Tbk" for the period 2008–2015, the results of statistical tests show that the first hypothesis (H_1), which is Current Ratio, has a significant effect on Return on Assets (ROA). This is evident from the t-value for the liquidity variable (X_2) of 2.967 > 1.645, so the first hypothesis is accepted.

Furthermore, the first hypothesis (H_1) related to Debt to Equity Ratio (DER) also has a significant effect on Return on Assets (ROA), with a t-value for the leverage variable (X_2) of 1.745 > 1.645 and 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, the results show that the debt-to-equity ratio and current ratio variables each have no significant effect on return on assets (ROA) when tested individually. Additionally, previous research by Alifiana & Indah (2021) highlights that there are differences in the findings of various studies, as not all studies report a positive and significant impact on ROA. This research aims to re-examine and provide empirical evidence on the effect of the current ratio and debt-to-equity ratio on ROA in manufacturing companies within the food and beverage sub-sector, listed on the Indonesia Stock Exchange (IDX) for the 2017-2019 period.

Data on current assets for food and beverage companies listed on IDX between 2017 and 2019 show that PT. Indofood Sukses Makmur, Tbk had the highest increase in current assets (Puspaninggiri, 2021). Conversely, PT. Sentra Food Indonesia, Tbk experienced a decrease in current assets each year, recording the lowest assets. PT. Indofood Sukses Makmur, Tbk also had the highest total debt for each year.

In terms of net profit, PT. Indofood Sukses Makmur, Tbk led with the highest value, although its net profit decreased by 2.6% in 2018 due to slow purchasing power. However, the company saw a substantial net profit increase of 19.0% in 2019, driven by improved operational performance and supported by net profit from foreign exchange financing activities. On the other hand, PT. Sekar Bumi, Tbk (SKBM) consistently recorded low and declining profits in each year, particularly in 2018 and 2019.

Based on these observations, this research seeks to determine the effect of the current ratio and debt-to-equity ratio on return on assets for food and beverage companies in the Indonesia Stock Exchange food and beverage sub-sector.

RESEARCH METHODOLOGY

This research examines two variables: the independent variable (X) and the dependent variable (Y). The independent variables in this study are the Current Ratio (CR) and Debt to Equity Ratio (DER), while the dependent variable is Return on Assets (ROA).

The population consists of food and beverage sub-sector manufacturing companies listed on the Indonesia Stock Exchange between 2017 and 2019,

totaling 24 companies. A purposive sampling technique is used to select the sample, based on the criteria outlined in the table below:

Table 1. Criteria Analysis

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 data, then processed by researchers

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:

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

Description:
Y = Return On Assets
a = Constant
β1-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

Chow Test

The Chow test is used to determine whether the Fixed Effect (FE) or Common Effect (CE) model is more appropriate. According to Jaswadi et al. (2015), the Chow test in EViews can be conducted using the likelihood ratio. The decision is based on the probability value for Cross-section F: if the value is > 0.05, the CE model is chosen; if < 0.05, the FE model is selected.

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:

H_0 = Random Effect Model

H_1 = Fixed Effect Model

When the chi-square > chi-square table H_0 is rejected, it means that the model used is a fixed effect model. When the chi-square count < chi-square table means that H_1 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 sectors that supports the development of the industrial sector in Indonesia. This industry serves as a mainstay of the manufacturing sector, contributing significantly to national economic growth. Its performance has been consistently positive in terms of increasing productivity, investment, exports, and employment.

This study focuses on food and beverage industry companies listed on the Indonesia Stock Exchange (IDX). The results of the current ratio calculation show that the company with the highest average value is PT Campina Ice Cream, Tbk (CAMP) at 1,309.7%, while the company with the lowest average value is PT Multi Bintang Indonesia, Tbk (MLBI) at 77.9%. The results of the debt-to-equity ratio calculation indicate that the company with the highest average value is PT Sentra Food Indonesia, Tbk (FOOD) at 383.5%, while the lowest is PT Delta Djakarta, Tbk (DLTA) at 17.9%. The highest average profitability value is recorded by PT Multi Bintang Indonesia, Tbk (MLBI) at 45.6%, while the lowest is PT Sekar Bumi, Tbk (SKBM) at 0.8%.

Descriptive statistics is a statistical analysis that provides a general description of the characteristics of each research variable based on the average (mean), maximum, and minimum values. The description of each research

variable is presented 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 by Researchers (2021)

Based on descriptive statistical analysis, the research observation comprised 51 data points, representing the number of samples during the 2017–2019 research period. The average return on assets (ROA) during this period is 10.61373, with the highest value reaching 52.70000 and the lowest at 0.10000. The standard deviation of ROA is 10.43805. The average debt to equity ratio (DER) is 98.86078, with the highest value at 959.8000 and the lowest at 13.10000, while the standard deviation of DER is 151.6080. The average current ratio (CR) is 306.1843, with the highest value at 1582.200 and the lowest at 49.30000. The standard deviation of the current ratio is 316.6462.

Panel Regression Analysis

Panel Data Regression Model Selection

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 Processed by Researchers (2021)

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 by Researchers (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 by Researchers (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 by Researchers (2021)

Table 7. 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 by Researchers (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 8. Coefficient of Determination Test Results

R-square	Adjusted R-square
0.705292	0.636155

Source: Secondary Data Processed by Researchers (2021)

Based on Table 8 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 9. T-Test Results

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 by Researchers (2021)

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 tcount value for the Debt to Equity Ratio is 2.335922 and the ttable 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 10. Relationships of Independent Variables on Return on Assets

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

Source: Secondary Data Processed by Researchers (2021)

The Current Ratio is a liquidity ratio used to measure a company's ability to meet its short-term obligations. In the food and beverage sub-sector, companies generally have high current ratio values. A high current ratio reduces uncertainty for investors but may also signal idle funds, which could negatively impact profitability. This occurs when a company allocates a large portion of its assets to current assets. In general, food and beverage companies have a current asset value greater than their current liabilities. While this improves liquidity, it also means that funds that could be invested to generate profit are instead tied up, limiting growth opportunities.

The research findings indicate that the Current Ratio does not significantly affect Return on Assets (ROA) for food and beverage companies listed on the IDX during the 2017-2019 period. This conclusion is based on a t-value of 0.403187 (less than the t-table value of 2.00958) and a regression coefficient of 0.001740, with a significance level of 0.6886 (greater than 0.05). Therefore, the hypothesis Ha is rejected, and H_0 is accepted.

The research suggests that increasing the current ratio does not necessarily lead to an increase in ROA for food and beverage companies. A high current ratio may result from uncollectible accounts receivable or unsold inventory, which do not generate cash flow. These factors can hinder operations and do not guarantee increased profitability. Furthermore, excessive idle funds reduce the company's ability to earn additional profit. As such, it is crucial to maintain a stable current ratio to avoid negatively impacting profitability.

These findings align with Solihin (2019), who found no significant effect of the current ratio on ROA. However, they contradict Ilham (2020), who argued that the current ratio significantly affects ROA. The Debt to Equity Ratio (DER) reflects a company's ability to meet its obligations using its own capital. An increase in DER typically leads to a decrease in ROA, as higher debt results in higher interest expenses, which reduce profits. A higher DER indicates a greater reliance on liabilities for funding, increasing the risk if the company cannot meet its obligations. This may disrupt operations and lead to high-interest costs that reduce profitability.

The research indicates that the Debt to Equity Ratio has a significant impact on ROA for food and beverage companies in the 2017-2019 period. The t-value

for DER is 2.335922 (greater than the t-table value of 2.00958), with a regression coefficient of -0.001027 and a significance level of 0.0010 (less than 0.05). Thus, Ha is accepted, and H_0 is rejected. These results suggest that a higher DER leads to lower ROA, while a lower DER can increase ROA by reducing interest expenses and financial distress. A lower DER indicates more financial stability, as companies with less debt face fewer risks and higher potential for profitability.

These findings are consistent with Chabachib (2016), who found that DER negatively impacts ROA. However, they contradict Wahyuni (2018), who concluded that DER has no effect on ROA.

CONCLUSION

Based on the research findings, the Current Ratio (CR) variable has a regression coefficient of 0.001740 and a significance value of 0.6886, which is greater than 0.05. Therefore, the first hypothesis is rejected, indicating that the Current Ratio (CR) does not have a significant effect on Return on Assets (ROA).

In contrast, the Debt to Equity Ratio (DER) variable has a regression coefficient of -0.001027 and a significance value of 0.0010, which is less than 0.05. Thus, the second hypothesis is accepted, suggesting that the Debt to Equity Ratio (DER) has a negative and significant effect on Return on Assets (ROA).

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