

## The Effect of Current Ratio, Debt to Equity Ratio and Working Capital Turnover on Profitability in Food and Beverage Companies Listed on the Indonesia Stock Exchange (Idx) Period 2019 – 2021



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**ABSTRACT:** This study aims to examine the factors that can affect profitability, which are liquidity (current ratio), solvency (debt to equity ratio) and working capital turnover. The population in this study was 28 food and beverage companies listed on the Indonesia Stock Exchange (IDX) period 2019-2021. The sample obtained was 19 companies using the sample selection method, which is purposive sampling. The tests carried out in this study were descriptive statistical tests, classical assumption tests, which are normality test, multicollinearity test and heteroscedasticity test and hypothesis tests, which are t test, f test and coefficient of determination test using Eviews 9. The results of the study state that partially (t-test) liquidity has no effect and insignificant on profitability, solvency has a negative and significant effect on profitability, working capital turnover has a positive and significant effect on profitability in food and beverage companies listed on the Indonesia Stock Exchange (IDX) period 2019 -2021. The simultaneous research results (f test) state that there is a significant effect of liquidity, solvency and working capital turnover on profitability in foods and beverage companies listed on the Indonesia Stock Exchange (IDX) period 2019-2021.

**KEYWORDS:** Current Ratio, Debt to Equity Ratio,, Working Capital Turnover, Profitability.

**A. INTRODUCTION:** The increasing level of competition between companies rapidly creates a demand for companies to continue to grow, innovate and be able to mobilize every element of the company to survive and generate profits. Food and beverage companies are industries that have great opportunities to develop accompanied by strong creativity and innovation. The profits obtained by the company can be used as a benchmark for the company's performance and the effectiveness of management is needed for efficient performance in order to generate optimal profits.

Profitability can be explained as the company's capability of making profit within a period of time which are related by sales, the number of productive assets and the company's own capital (Juventia, 2020). The more effective the company's performance, the higher the level of profitability because assets are able to spin faster in generating profits.

Liquidity can be explained as the ability of a company to use the company's current assets to pay its current liabilities on a specified maturity date. High level of liquidity means that the company has a lower risk of the probability of failure to fulfil its current liabilities. However, companies that are too liquid have not been able to give a very good meaning because it shows that a lot of funds are unused or not optimally managed so that it can minimize the company's profitability. In this study, liquidity will be proxied and measured using the current ratio.

Solvency is used to measure of how well a company's debts can fund the company's assets. If a company can manage its debt well, the company is able to increase its level of profitability. However, the high level of solvency in the company can have a negative impact on the company because the amount of funding with debt can have an impact on decreasing the company's profitability. (Supriyadi & Yuliani, 2015). In this study solvency will be proxied and measured using the debt to equity ratio.

Working capital is an important element of a business as working capital is the fund a company uses to finance its operating activities. A company's large working capital can raise the liquidity level to a good level. However, a very large amount of working capital can make the company suffer losses because there is idle working capital, especially working capital that comes from loans because the company has to pay interest on the loan. (Burhanudin, 2017). The effectiveness of working capital can be assessed by using the working capital turnover ratio.

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This study will discuss profitability, liquidity, solvency and working capital turnover. Researchers are interested in studying these variables with profitability as the dependent variable and liquidity, solvency and working capital turnover as independent variables.

The problems in this study are as follows:

1. Does liquidity (CR) affect profitability (ROA)?
2. Does solvency (DER) affect profitability (ROA)?
3. Does working capital turnover (WCT) affect profitability (ROA)?
4. Does liquidity (CR), solvency (DER) and working capital turnover (WCT) affect profitability (ROA) simultaneously?

## B. LITERATURE REVIEW AND HYPOTHESES

### 1. Pecking Order Theory

Pecking Order Theory argues that companies prefer funding from internal companies rather than external funding to finance their company's activities and explains that companies with high profit generally have lower debt because companies have high internal funds. However, the amount of internal funds in a company is often not able to finance all company activities. If there is an internal funding deficit, the company requires external funding by prioritizing funding by debt and then issuing equity securities if debt funding is not enough to finance its business activities (Dewi & Wirama, 2017).

### 2. Profitability

Profitability is an important part of a company because without profit, a company won't be able to maintain its business. If the company's profits are considered good (profitable) then the company can convince many investors to invest in the company. According to Kasmir (2021:198) profitability ratio is an indicator to assess the company's capability to seek profit.

### 3. Liquidity

According to Kasmir (2021:110) The liquidity ratio is an indicator used to show a company's capability to pay off its short-term maturing debt. This ratio is used to understand a company's liquidity by comparing all components of current assets with all components of current liabilities.

The more liquid a company is, the lower the risk of default on its current liabilities. The capability to fulfill its current liabilities will provide an overview and guarantee for parties outside the company that the company will pay its debts in accordance with the predetermined payment deadline.

### 4. Solvency

According to Kasmir (2021:153) the solvency ratio or leverage ratio is an indicator used to measure how far the company's debt can finance company's assets. This means how much debt burden is borne compared to company's assets.

### 5. Working Capital Turnover

According to Kasmir (2021: 184) Working capital turnover is a metric used to assess the effectiveness of a company's working capital over a given period of time. This means how much working capital rotates over a period. The formula of working capital turnover can be calculated by comparing sales and working capital.

### 6. Food and Beverage Company

Food and beverage companies are one of several sub-sectors of manufacturing companies, where these companies operate in the food industry, namely food and beverages whose main activities are in the form of operational production of raw food into semi-finished food or finished food.

## C. HYPOTHESIS

- H<sub>1</sub> = Liquidity affects profitability  
H<sub>2</sub> = Solvency affects profitability  
H<sub>3</sub> = Working Capital Turnover affects profitability  
H<sub>4</sub> = Liquidity, solvency and working capital turnover simultaneously affect profitability

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## D. METHOD

According to Sugiyono (2019), Research methods are scientific methods of obtaining data with a specific purpose and use. From the definition, it can be concluded that a research method is a scientific technique that a researcher can use to obtain data about a research object in order to solve a problem. This study is a quantitative study because the data are in numerical form and descriptive and associative approaches are used to determine the relationship between two or more variables.

The population in this study is food and beverage companies listed on the Indonesian Stock Exchange (IDX) for the period 2019-2021. The study used a sampling technique called purposive sampling. Purposive sampling according to Sugiyono (2019) is a sampling technique with criteria determined by the researchers. The sample criteria needed by researchers in this study are as follows:

- 1) Food and beverage companies listed on the Indonesia Stock Exchange (IDX) in the research period from 2019 - 2021.
- 2) Food and beverage companies that publish its annual financial statements on the Indonesia Stock Exchange in study period.
- 3) These companies have complete financial statements in accordance with the required data and are presented in IDR currency.
- 4) These companies did not suffer losses during the research period.

### Variable Operational Definition

No	Variable	Formula	Scale
<b>A. Dependent Variable</b>			
1.	<i>Return on Asset (Y)</i>	<b><i>Return On Asset = Net Income / Total Assets</i></b>	Ratio
<b>B. Independent Variable</b>			
2.	<i>Current Ratio (X<sub>1</sub>)</i>	<b><i>Current Ratio = Current Assets / Current Liabilities</i></b>	Ratio
3.	<i>Debt to Equity Ratio (X<sub>2</sub>)</i>	<b><i>Debt to Equity Ratio = Total Debt / Equity</i></b>	Ratio
4.	<i>Working Capital Turnover (X<sub>3</sub>)</i>	<b><i>Working Capital Turnover = Net Sales / Working Capital</i></b>	Ratio

### Data Analysis Technique

According to the test results of the panel data regression model, the analysis model used in this study is Fixed Effect Model (FEM). The regression equation is as follows:

$$Y = 0.161382 + (-0.006244)*X_1 + (-0.063735)*X_2 + 0.002485*X_3$$

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## E. RESULTS AND DISCUSSIONS

### 1. Descriptive Statistical Test

Date:06/14/22  
Time: 15:14  
Sample: 2019 2021

	ROA	CR	DER	WCT
Mean	0.114495	3.017169	0.614996	4.487186
Median	0.087222	2.244001	0.530518	3.771391
Maximum	0.607168	13.30906	1.658416	30.40787
Minimum	0.000526	0.411355	-2.127341	-13.30613
Std. Dev.	0.117713	2.852631	0.550977	6.325007
Skewness	2.785441	2.438629	-1.856023	0.733038
Kurtosis	11.73140	8.843368	11.94734	7.417162
Jarque-Bera	254.7712	137.5899	222.8561	51.44417
Probability	0.000000	0.000000	0.000000	0.000000
Sum.	6.526205	171.9786	35.05477	255.7696
Sum Sq. Dev.	0.775959	455.7001	17.00022	2240.320
Observations	57	57	57	57

Source : Data processed using EViews 9

### 2. Classic Assumption Test

#### a. Normality Test

Based on normality test result, probability value is 0.111751 > 0.05 and the Jarque Bera value is 4.382967, this value is smaller than the table  $\chi^2$  value. This means that the data in this study is distributed normally.

#### b. Multicollinearity Test

Multicollinearity test results in this study is the correlation coefficient between independent variables is smaller than 0.8, so the conclusion is no multicollinearity in this study.

#### c. Heteroscedasticity Test

According to the test indicates that the probability value of the variables CR, DER and WCT is more than 0.05, which means no heteroscedasticity in this study.

### 3. Hypothesis Test

#### a. T-Test

Dependent Variable: ROA  
Method: Panel EGLS (Cross-section weights)  
Date: 06/14/22 Time: 15:22  
Sample: 2019 2021  
Periods included: 3  
Cross-sections included: 19  
Total panel (balanced) observations: 57  
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.161382	0.027734	5.818878	0.0000
CR	-0.006244	0.006808	-0.917191	0.3653
DER	-0.063735	0.016211	-3.931612	0.0004
WCT	0.002485	0.001223	2.030912	0.0499

Source: Data processed using EViews 9

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The T-test results indicate the probability value of the independent variables that are DER is 0.0004 and WCT is 0.0499. The probability value of DER and WCT are smaller than 0.05 which means that DER and WCT affect and are significant on ROA. Meanwhile, CR probability value is greater ( $0.3653 > 0.05$ ), means that CR does not affect and is not significant on ROA.

### b. F-Test

Dependent Variable: ROA  
 Method: Panel EGLS (Cross-section weights)  
 Date: 06/14/22 Time: 15:22  
 Sample: 2019 2021  
 Periods included: 3  
 Cross-sections included: 19  
 Total panel (balanced) observations: 57  
 Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
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CR	-0.006244	0.006808	-0.917191	0.3653
DER	-0.063735	0.016211	-3.931612	0.0004
WCT	0.002485	0.001223	2.030912	0.0499

#### Effects Specification

Cross-section fixed (dummy variables)

Weighted Statistics			
R-squared	0.935561	Mean dependent var	0.333691
Adjusted R-squared	0.896897	S.D. dependent var	0.254316
S.E. of regression	0.085389	Sum squared resid	0.255195
F-statistic	24.19745	Durbin-Watson stat	2.407769
Prob(F-statistic)	0.000000		

Source: Data processed using EViews 9

The table above shows that the value of  $F_{\text{statistics}}$  is greater than  $F_{\text{table}}$  ( $24.19745 > 2.78$ ) and the probability value is  $0.000000 < 0.05$ . The conclusion is that liquidity (CR), solvency (DER), and working capital turnover (WCT) affect profitability (ROA) simultaneously.

### C. Coefficient of Determination ( $R^2$ )

The adjusted R-squared value in this study was 0.896897. Meaning that the independent variables in this study, i.e. Liquidity, Solvency and Working Capital Turnover can explain 89.68% of Profitability, while the remaining 10.32% is determined by other variables are not included in the study such as sales growth, company size, structure capital and others.

### Analysis and Discussion of Research Results<sub>1</sub>

#### 1. The Effect of Liquidity on Profitability ( $H_1$ )

According to the t test results, liquidity coefficient value was -0.006244, which means liquidity negatively affect profitability. The  $t_{\text{statistic}}$  value is -0.917191 which is smaller than the  $t_{\text{table}}$  value is 1.67412 and the probability value is  $0.3653 > 0.05$ . This means that liquidity has no effect and is not significant on profitability partially. The results of this study do not support the hypothesis in the study that liquidity affects profitability. So, the liquidity level of a company will not affect the level of profitability.

This research is supported by research by Anya Riana Anissa (2019) which states that liquidity has no effect on profitability. However, this research isn't supported by the results of research by Dwi Novitasari and Budiyanto (2019) which states that liquidity has a significant effect on profitability.

#### 2. The Effect of Solvency on Profitability ( $H_2$ )

According to the t test results, solvency coefficient value was -0.063735, which means that solvency negatively affect profitability. The  $t_{\text{statistic}}$  value is -3.931612 which is greater than the  $t_{\text{table}}$  value is 1.67412 and the probability value is  $0.0004 < 0.05$ . This means that solvency has an effect and is significant on profitability partially. The results of this study support the hypothesis in this study that solvency has an effect on profitability. Companies that have long-term obligations and manage them well can expand their business by expanding so that the level of profitability will also increase. However, a very high solvency level is also not good because the risk of loss will be higher as well.

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This research is supported by research by Dwi Novitasari and Budiyanto (2019) which states that solvency has an effect on profitability. However, this research result isn't supported by Suci Wahyuliza and Nola Dewita's research (2018) which states that solvency has no effect on profitability.

### **3. The Effect of Working Capital Turnover on Profitability<sub>1</sub> (H<sub>3</sub>)**

According to the t test results, working capital turnover coefficient was 0.002485, this means that the working capital turnover positively affect profitability. The  $t_{\text{statistic}}$  value is 2.030912 which is greater than the  $t_{\text{table}}$  value is 1.67412 and the probability value is  $0.0499 < 0.05$ . This means that working capital turnover has an effect and is significant on profitability partially. The results of this study support the hypothesis in the study that working capital turnover has an effect on profitability. The longer the working capital turnover period, then the slower the turnover. Conversely, the shorter the working capital turnover period, then the faster the turnover, so the company is more efficient which can lead to increase profitability.

This research is supported by the research of Suci Wahyuliza and Nola Dewita (2018) which states that working capital turnover has an effect on profitability. However, this research isn't supported by research by Deny Indra Firmansyah and Akhmad Riduwan (2021) which states that working capital turnover doesn't affect profitability.

### **4. The Effect of Liquidity, Solvency and Working Capital Turnover on Profitability (H<sub>4</sub>)**

According to the f test results, the value of  $F_{\text{statistics}}$  is greater than  $F_{\text{table}}$  ( $24.19745 > 2.78$ ) and the probability value is  $0.000000 < 0.05$ , this means that Liquidity, Solvency and Working Capital Turnover are contributing to Profitability simultaneously. The adjusted R-squared value in this study was 0.896897. Meaning that the independent variables in this study, i.e. Liquidity, Solvency and Working Capital Turnover, can explain 89.68% of Profitability, while the remaining 10.32% is explained by other variables aren't included in the study.

## **E. CONCLUSIONS AND SUGGESTIONS**

### **Conclusions**

This study's purpose is to test the effect of liquidity, solvency and working capital turnover on the profitability of food and beverage companies listed on the Indonesian Stock Exchange (IDX) period 2019-2021. Based on the research results and data analysis, the following conclusions are drawn:

1. Liquidity has no effect and isn't significant on profitability.
2. Solvency has an effect and is significant on profitability.
3. Working Capital Turnover has an effect and is significant on Profitability
4. F test results stated that liquidity, solvency and working capital turnover contribute simultaneously to profitability.

### **Suggestions**

1. For the next researcher

Next researchers are suggested to do the same research and develop research by adding more independent variables on profitability that are not included in this study. Next researchers are also advised to examine the same variables in different companies and time periods.

2. For the company

The authors suggest companies to pay more attention to liquidity by managing and maximizing the use of the company's current assets to make optimal profit.

3. For the investor

Investor who wants to invest their funds are advised to consider and seek information in advance about the variables that can affect the level of profitability in the company are in good condition or not.

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