

The Effect of Working Capital Turnover and Inventory Turnover on Profitability in Food and Beverage Companies Listed on the Indonesia Stock Exchange (IDX)

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Abstract

This study aims to determine the effect of working capital turnover and inventory turnover on profitability in food and beverage companies listed on the Indonesia Stock Exchange (IDX). This study uses a purposive sampling method, data obtained from 20 food and beverage companies on the Indonesia Stock Exchange that meet the criteria with a 5-year research (2020-2024). The type of data used is quantitative data and the data source used is the company's financial statements. This study uses an analysis tool, namely SPSS Software Version 26. The results of this study show that the turnover of working capital has an influence on profitability in food and beverage companies listed on the IDX. Meanwhile, inventory turnover does not have a significant effect on profitability in food and beverage companies listed on the IDX.

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INTRODUCTION

In general, companies certainly have an end goal that they want to achieve, which is to obtain the maximum profit. In terms of supporting the final goals that the company wants to achieve, of course, the company needs funds, these funds can be used to finance the company's operational activities or to finance the company's long-term investments, in this case, the company is expected to manage finances professionally, namely by paying attention to working capital and inventory in order to achieve the company's profit or profitability.

Profitability is the ability of a company to earn profits in relation to sales, total assets, and its own capital. Measuring the level of profitability can be done by comparing the rate of return on assets (ROA). In general, for a company, the issue of profitability is more important than the issue of profit, because a large profit is not necessarily a measure that the company has worked efficiently. Efficiency can be measured by profitability, which is the ability of a company to generate profits from the wealth or capital it owns (Nirawati et al., 2022).

High profitability can support operational activities optimally, measuring a company's profit can use the profitability ratio or commonly known as the profitability ratio. The profitability of a company is influenced by financial factors. These financial factors are usually measured using financial ratios such as Return On Assets, Return On Investment, Return On Equity, Gross Profit Margin and Net Profit Margin (Putri & Muslichah, 2023).

One of the factors that affect the high and low profitability is working capital. According to Kasmir (2019) working capital is capital used in order to carry out the company's operational activities and also as an investment invested in current assets or short-term assets, in this study it is such as cash, receivables, and inventory.

The importance of working capital for companies requires that company management have the ability to be able to manage working capital well for the development and survival of the company. Proper working capital management effectively and efficiently can increase the company's profits. Proper working capital management effectively and efficiently can increase the company's profits, because the larger the amount of working capital and the higher the working capital turnover, the higher the income that will be obtained by the company, with the availability of sufficient working capital the company will be able to manage operational activities well so that the company's goals can be achieved and continue to increase. The supply of working capital must be sufficient or in the sense that it must be able to finance the company's daily expenses or operations. To find out the level of efficiency of the company, it can be measured from the level of working capital turnover.

In addition to working capital turnover, inventory turnover is also one of the components that affects the company's profitability. Minimal inventory sales will affect the decline in sales rate. Therefore, goods must be balanced with the level of sales. With the turnover of inventory, it will be easier for companies to produce and distribute goods to their consumers.

The higher the inventory turnover, the better it will be because it means showing high sales and high revenue, on the other hand, if the inventory turnover is low, it indicates weak sales resulting in the risk of inventory damage which will reduce the selling price of an item so that it can decrease profit or income which will have an impact on decreasing the company's profitability.

In the food and beverage industry, where products often have a limited shelf life, efficient management of working capital and inventory is crucial. Previous research has shown that companies that are able to manage working capital and inventory turnover well tend to have high profitability (Sari, 2022).

METHOD

The population in this study is food and beverage companies listed on the IDX in 2020-2024. Sample selection was carried out through *purposive sampling techniques* with criteria such as food and beverage companies that publish annual *reports*, so that a final

sample of 20 companies and the number of observation data was 100 for 5 years of observation.

This study uses secondary data with a quantitative approach method. The data source is obtained from annual report data and financial statements taken through the www.idx.co.id website and the website of each company. The data analysis used in this study is descriptive statistical analysis, classical assumption test, and hypothesis test. The analysis tool used in this study is SPSS software version 26.

RESULTS AND DISCUSSION

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Hours of deviation
Capital Turnover	100	0,3634	10,7033	2,424261	1,8904887
Inventory Turnover	100	0,0430	7,9242	1,127001	2,0739802
Profitability	100	0,0046	0,3431	0,092238	0,0712049

Table 1 gives an idea that the sample used in this study amounted to 100 data samples. The independent variable (X1) of capital turnover has a minimum value of 0.3634 and a maximum value of 10.7033. The *mean* value of 2.4242 and the standard deviation of 1.8904 indicate that the standard deviation value is smaller than the mean value, which means that the potential of the company's capital to generate income fluctuates over five years.

The independent variable (X2) of inventory turnover has a minimum value of 0.430 and a maximum value of 7.9242. The *mean value* of 1.127001 and the standard deviation of 2.07398 indicate that the standard deviation value is greater than the *mean value* which means that the data distribution is evenly and normally over the past five years, the turnover of the company's inventory in generating revenue tends to decrease.

The dependent variable (Y) profitability measured by *Return On Assets* (ROA) has a minimum value of 0.0046 owned by Malindo Feedmill Tbk (MAIN) in 2022. The maximum value is 0.3431 owned by the company Central Proteina Prima Tbk (CPRO) in 2021. The *mean value* was 0.092238 and the standard deviation was 0.0712049.

Table 2. Normality Test

		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	.0000000
	Hours of deviation	.81962880
Most Extreme Differences	Absolute	.075
	Positive	.040
	Negative	-.075
Test Statistic		.075
Asymp. Sig. (2-tailed)		.187c

Table 2 shows an *Asymp.Sig* value (2-tailed) of 0.187 whose significance value is higher than 0.05 indicating that the data used in the study has been distributed normally.

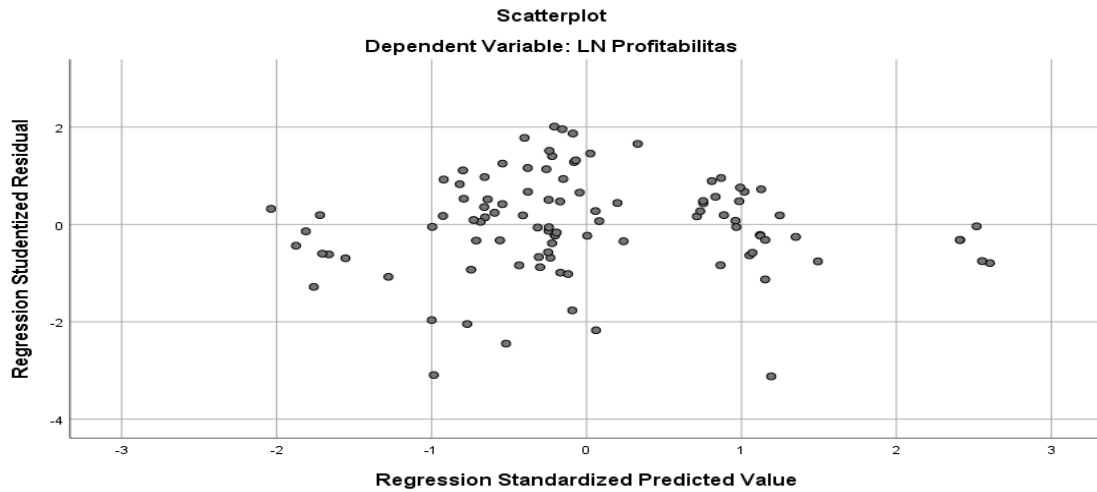


Figure 1. Heteroscedasticity Test

Figure 1 can be seen that the dots are scattered randomly and do not form a specific pattern and are scattered both above and below the number 0 (zero) on the Y axis.

Table 3. Autocorrelation Test

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.193a	.037	.017	.69922	2.020

a. Predictors: (Constant), LAG_X2, LAG_X1

b. Dependent Variable: LAG_Y

Table 3 of the results obtained are that the *Durbin-Watson* value is higher than the dU value and lower than the 4-dU value ($1.7152 < 2.020 < 2.2848$). With this decision-making, it can be concluded that there are no autocorrelation symptoms in this study.

Table 4. Multicollinearity Test

Independent Variables	Collinearity Statistics		Remarks
	Tolerance	LIVE	
LN Capital Turnover	0,834	1,200	Free of Multicollinearity
LN Turnover Setup	0,834	1,200	Free of Multicollinearity

a. Dependent Variable: LN Profitability

Table 4 of the results of the multicollinearity test can be found that the tolerance value of the capital turnover is 0.834 and the inventory turnover is 0.834 which means that these values are greater than 0.10. And it is known that the VIF value of the capital turnover is 1,200 and the inventory turnover is 1,200 which means that the value is less than 10. Therefore, it can be concluded that the data used in this study do not have symptoms of multicollinearity.

Table 5. Multiple Linear Regression Analysis

Model	Coefficients ^a	Unstandardized		Standardized	t	Sig.
		B	Coefficients	Coefficients		
1	(Constant)	-2.605	.113		-22.953	.000
	LN Capital Turnover	.266	.118	-.243	-2.242	.027
	LN Turnover Setup	.081	.068	-.130	-1.199	.233

a. Dependent Variable: LN Profitability

Source: Data Processed, 2025 (IBM SPSS Version 26 Output Results)

From the multiple linear regression in table 5, the regression equation is obtained:

$$Y = -0,2605 + 0,266X_1 + 0,081X_2 + e$$

From the equation above, it can be seen that the constant (Y) shows a value of -0.2605 which means that if the variables of Capital Turnover (X1) and Inventory Turnover (X2) are 0 (zero), then the profitability of mining companies in the food and beverage sub-sector listed on the Indonesia Stock Exchange (IDX) will decrease by -0.2605. The Capital Turnover Coefficient (X1) has a positive coefficient value of 0.266 so that an increase in capital turnover will result in an increase in profitability in food and beverage companies listed on the Indonesia Stock Exchange (IDX) will increase by 0.266. The Inventory Turnover Coefficient (X2) has a positive coefficient value of 0.081 so that the inventory turnover will result in an increase in profitability in food and beverage companies listed on the Indonesia Stock Exchange (IDX) by 0.081.

Table 6. Coefficient of Determination (Adjusted R Square)
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.224a	.050	.031	.8280355

a. Predictors: (Constant), Inventory Turnover, Capital Turnover

Based on table 6, the value of the determination coefficient in the column *R Square* () is 0.050 or 5.0%. The result of a 5.0% profitability variable influenced by capital turnover and inventory turnover. This means that profitability can be explained by capital turnover and inventory turnover of 0.050 or 5.0%. Meanwhile, the rest of the adjusted R square of 95.0% was influenced by other variables that were not found in this study.^{R²}

Table 7. Test F
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.514	2	1.757	2.563	.082b
	Residual	66.507	97	.686		
	Total	70.021	99			

a. Dependent Variable: LN Profitability

b. Predictors: (Constant), Inventory Turnover, Capital Turnover

In table 7, the significance value of F is 0.082 which means that the value is less than 0.05. This means that the variables of capital turnover and inventory turnover have no effect on profitability, so it can be said that the regression model used in this study is not significant.

Table 8. T test
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.605	.113		22.953	.000
	LN Capital Turnover	.266	.118	-.243	2.242	.027
	LN Turnover Setup	.081	.068	-.130	1.199	.233

a. Dependent Variable: LN Profitability

Based on table 8 hypothesis tests in the partial test (t-test), the significance value of the capital turnover variable is 0.027 less than 0.05 which means that the capital turnover has an effect on profitability. So it can be said that increasing working capital turnover can increase the company's profitability. Working capital turnover refers to a company's ability to efficiently manage and utilize its working capital, such as inventory, receivables, and debts. When the working capital turnover increases, this indicates that the company can convert its working capital investment into income or cash flow more quickly, which can ultimately increase the company's profitability. The results of the

research are in line with the agency theory, the turnover of working capital functions as a signal of the efficiency of short-term asset use by management. In this theory, it shows that the company's governance mechanism works well to suit the interests of both managers and owners.

The results of this study are in line with the results of the research of Satriya & Lestari (2014) showing that the turnover of working capital has a positive and significant effect on profitability. The company uses working capital for its operational activities. The funds issued by the company are expected to return for further operational activities. These results prove that the higher the sales volume produced, the faster the working capital rotates so that capital quickly returns to the company accompanied by high profits, high profits cause the company's profitability to also increase. Increased profitability will be able to attract investors to invest in the company so that working capital increases.

Based on table 8 of the hypothesis test in the partial test (t-test), the significance value of the inventory turnover variable is 0.223 greater than 0.05 which means that the inventory turnover has no effect on profitability. The results of the study are not in line with the agency's theory, the company's inability to sell will cause *over-stock* of goods in the warehouse, thus affecting the effectiveness of inventory turnover to be low. A low inventory turnover rate will also cause low profitability levels and company revenues to decrease. The results of the study are not in line with the agency theory because the decision of managers (agents) in managing assets has incurred agency costs (such as overstocking or cost inefficiency) which neutralizes the potential increase in profits that should arise from a good inventory turnover so that low inventory turnover will cause the company's profits to fall.

The results of this study are in line with the results of Karamina & Soekotjo's (2018) research showing that inventory turnover has a insignificant effect on profitability due to the large amount of capital tied in inventory. The short length of this inventory turnover period has a direct effect on the amount of capital invested by the company in the inventory. Inventory turnover has a positive effect. Low inventory turnover will result in low profitability levels as well.

4. Conclusion

This study aims to determine the effect of working capital turnover and inventory turnover on profitability in food and beverage companies listed on the IDX. Based on the results of the research and discussion above in the previous chapter, the following conclusions can be drawn :

- a. The variable of working capital turnover has an effect on the profitability of food and beverage companies listed on the IDX in the 2020-2024 period.
- b. Inventory turnover variables do not have a significant effect on profitability in food and beverage companies listed on the IDX in the 2020-2024 period.

Based on the research results, conclusions, and limitations of the research that have been disclosed, the suggestions for further research are:

- a. In the next research, it is hoped that researchers can add other variables that can affect the company's profitability and can use the latest research period so that the results obtained are also maximum and renewable.
- b. The company's management is expected to pay attention to the inventory of goods so that there is no *over-stock* in the warehouse that affects the company's profitability.
- c. The object of research can be extended not only to food and beverage companies, but also to other types of companies.

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