



IMPACT OF QR, DR AND ITO ON ROA IN CONSUMER COMPANIES

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Abstract

Companies must improve work effectiveness and efficiency to survive. The business wants earnings to ensure its existence. This research looked at the impact of the quick ratio, debt ratio, and inventory turnover on return on assets in businesses listed on the Indonesian Stock Exchange from 2016 to 2019. This study utilizes quantitative and categorical data. Collecting data using literature. This study covers 52 consumer goods firms listed on the Indonesian Stock Exchange from 2016 to 2019. The sample is 23. As a consequence, the Quick ratio has no impact on the return on assets of firms listed on the Indonesia Stock Exchange from 2016 to 2019. For the 2016-2019 timeframe, the debt ratio has no impact on the return on assets of firms listed on the Indonesia Stock Exchange. For the 2016-2019 timeframe, inventory turnover affects return on assets in the Consumer Goods Sector. Ongoing changes in debt ratios and inventory turnover impact return on assets in Indonesian consumer goods businesses .

Keywords: Quick Ratio, Debt Ratio, Inventory Turnover and Return On Assets

INTRODUCTION

It is intertwined with competitiveness and the distribution of money by the firm, yet it is frequently difficult to acquire funds. Companies use the stock market to raise money. One is the consumer products industry, which fell by 20.11 % in 2019 against 10.21 % in 2018[1]. Companies must improve work effectiveness and efficiency to survive. The business wants earnings to ensure its existence. The greater the return on assets, the more profitable the business is[2].

Return on Assets (ROA) is a measure used to assess a company's profitability. To maximize profit, the business needs large sums of money, which may be acquired in various methods, including external loans (debt). The loan must be repaid within the loan period[3].

The quick ratio is low because the business has limited cash and large receivables and inventory. Low business profitability may be caused by high inventories. Debt Ratio indicates a company's capacity to pay all debts if liquidated. Because the company's burden is rising and its risk is increasing, the Debt Ratio falls. Goods rotation is vital to avoid stockpiling of business inventory[4]. Fast inventory turnover means high Return on Assets, whereas sluggish inventory turnover means poor Return on Assets. In a bad global economy, the consumer products sector may help the stock market. However, changes in the cost of raw materials have little impact on the consumer products sector. PT Indofood Sukses Makmur Tbk (INDF) is the top issue [5]. PT Indofood CBP Sukses Makmur Tbk (ICBP). Jennifer predicts





that the rise in Crude Palm Oil and SMP prices would reduce ICBP's gross profit by 2.2%. PT Ultra Jaya Milk Industry Tbk is also affected (ULTJ)[6].

Num ber	Com pany	Ye ars	Current asset	Total Amount of debt	Supply	Net Profit After Tax
1	PT Indof ood Sukse s Mak mur Tbk	2016	28.985.443.000.000	38.233.092.000.000	8.469.821.000.000	4.852.481.000.000
		2017	32.515.399.000.000	41.182.764.000.000	9.690.981.000.000	5.145.063.000.000
		2018	33.272.618.000.000	46.620.996.000.000	11.644.156.000.000	4.961.851.000.000
		2019	31.403.445.000.000	41.996.071.000.000	9.658.705.000.000	5.902.729.000.000
		2016	15.571.362.000.000	10.401.125.000.000	3.109.916.000.000	34.375.236.000.000
		2017	16.579.331.000.000	11.295.184.000.000	3.261.635.000.000	35.606.593.000.000
		2018	14.121.568.000.000	7.235.398.000.000	4.001.277.000.000	4.658.781.000.000
		2019	16.624.925.000.000	6.556.359.000.000	3.840.690.000.000	5.360.029.000.000
		3	PT Ultra Jaya Milk Indust ry Tbk	2016	874.822.074.967.000	749.967.000.000
2017	3.439.990.0978.185.000			0.000.000	682.624.000.000	4.879.559.000.000
2018	2.793.521.0780.915.000			0.000.000	708.773.000.000	701.607.000.000
2019	716.641.0953.283.000			0.000.000	987.927.000.000	1.035.865.000.000
2016	874.822.074.967.000			749.967.000.000	760.534.000.000	4.685.988.000.000

Table 1. Current Assets, Total Debt, Inventories, Net Profit After Tax on Consumer Goods Sector Companies listed on the Indonesia Stock Exchange 2016-2019 Period

In 2017, PT Indofood Sukses Makmur Tbk's current assets increased to Rp 32,515,399,000,000, while its net profit increased to Rp 5,145,063,000,000. PT Indofood CBP Sukses Makmur Tbk (ICBP) had total debt of Rp 11,295,184,000,000 in 2017, with a net profit of Rp 35,606,593,000,000. PT Ultra Jaya Milk Industry Tbk has inventories worth Rp 708,773.000.000 in 2018, up from Rp 701,607.000.000 in 2017[7].

RESEARCH METHODS

The population of this study were 52 companies in the Consumer Goods Sector listed on the Indonesia Stock Exchange for the 2016-2019 period. Sampling using purposive sampling method. The sampling criteria are as follows, 1. Consumer Goods Sector Companies listed on the Indonesia Stock Exchange for the 2016-2019 Period. 2. Consumer Goods Sector Companies that publish financial reports for the period 2016-2019. 3. Consumer Goods Sector Companies that distribute profits in a row during the 2016-2019 period[7].

Information	Total
Consumer Goods Sector companies listed on the Indonesia Stock Exchange for the 2016-2019 Period	52
Consumer Goods Sector Companies that do not publish financial reports during the 2016-2019 period	(20)
Companies in the Consumer Goods Sector that lost consecutively during the 2016-2019 period	(9)
Number of companies selected as research samples	23
Number of observations (23 x 4)	92

Table 2. Research Sample

Variable	Variable Definition	Variable Indicator	Measuring Scale
Quick Ratio (X ₁)	The quick ratio is a more precise measure of short-term solvency than the current ratio because the numerator eliminates inventory that is considered a slightly illiquid current asset and a possible	Quick Ratio $\frac{\text{Current Assets} - \text{Inventories}}{\text{Current Liabilities}}$	Ratio





	source of loss[7].		
Debt Ratio (X ₂)	The debt-to-asset ratio is the ratio used to measure the ratio between total debt and total assets.	Debt to Asset Ratio = Debt / Total Assets	Ratio
Inventory Turnover (X ₃)	Inventory turnover is a ratio used to measure how many times the funds invested in this inventory rotate in a period[8].	Inventory Turnover Ratio = Sales/inventory	Ratio
Return on Asset (Y)	The return on assets is a ratio that shows how much the asset contributes in creating net income[9].	ROA = Net Income / Total assets	Ratio

Table 3. Operational Variable

Autocorrelation Test

Autocorrelation testing using the Durbin-Watson test (DWtest).

Model of Data Analysis Research Multiple Linear Regression Analysis

Multiple linear regression analysis shows that this research variable has more than one independent variable with the following equation :

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Information :

- Y : Return on Asset
- a : konstanta
- X₁ : Quick Ratio
- X₂ : Debt Ratio
- X₃ : Inventory Turnover
- b_{1,2,3} : the magnitude of the regression coefficient of each variable
- e : error

The coefficient of determination serves to see the extent to which the entire independent variable can explain the dependent variable. The greater the value of the coefficient of determination, the better the ability of the independent variable to explain the dependent variable.

The basis for decision making in the F test is based on the significance value, 1. If the significance value is <0.05, the independent variable simultaneously has a significant effect on the dependent variable. 2. If the significance value is > 0.05 then the independent variable does not simultaneously have a significant effect on the dependent variable[10].

The basis for decision making in the t test is based on the significance value, 1. If the significance value is <0.05, the independent variable partially has a significant effect on the dependent variable. 2. If the significance value is > 0.05, the independent variable partially does not have a significant effect on the dependent variable[11].





RESULTS AND DISCUSSION

The data of this research can be broken down from the number of accurate samples, minimum value, maximum value, mean and standard deviation.

N	Minimum	Maximum	Mean	Std. Deviation	
QR	92	.09	7.36	2.0526	1.55159
DAR	92	.08	.74	.3534	.16399
PerputaranPresediaan	92	2.03	49.70	9.4180	8.92394
ROA	92	.00	.53	.1365	.10993
Valid N (listwise)	92				

Table 3. Descriptive Statistics

Quick Ratio with a sample of 92 with details of a minimum value of 0.09, a maximum value of 7.36, a mean of 2.0526 and a standard deviation of 1.55159. Debt ratio with a sample of 92 with details of a minimum value of 0.08, a maximum value of 0.74, a mean of 0.3534 and a standard deviation of 0.16399. Inventory turnover with a sample of 92 with details of a minimum value of 2.03, a maximum value of 49.70, a mean of 9.4180 and a standard deviation of 8.92394. Return on assets with a sample of 92 with details of a minimum value of 0.00, a maximum value of 0.53, a mean of 0.1365 and a standard deviation of 0.10993.

N	92	
Normal Parameters ^{a,b}	Mean	.0000000
Std. Deviation		.1040414
Most Extreme Absolute Differences	Positive	.117
	Negative	-.081
Test Statistic		.117
Asymp. Sig. (2-tailed)		.003 ^c

Table 4. One-Sample Kolmogorov-Smirnov Test Before Transformation

Table show Sig (2-tailed) 0.003 0.05 did not conform to the normal distribution. Normalizing abnormal data for transformation.

N	91	
Normal Parameters ^{a,b}	Mean	.000000
		0
Std. Deviation		.698248
Most Extreme Absolute Differences	Positive	.073
	Negative	-.059
Test Statistic		.073
Asymp. Sig. (2-tailed)		.200 ^{c,d}

Table 5. One-Sample Kolmogorov-Smirnov Test After Transformation

Table shows Asymp. The normal distribution is satisfied by Sig. (2-tailed) 0.200 > 0.05. This research utilizes the Kolmogorov-Smirnov (K-S) normality test, histogram analysis, and a normal probability map.

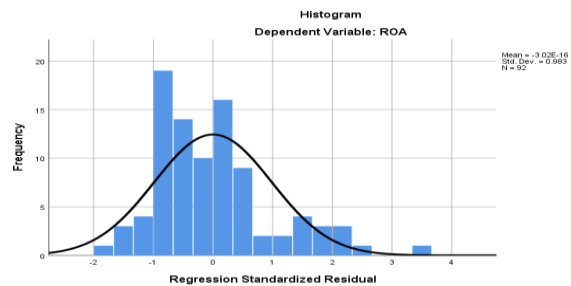


Figure 1. Histogram Normality Test Before Transformation.

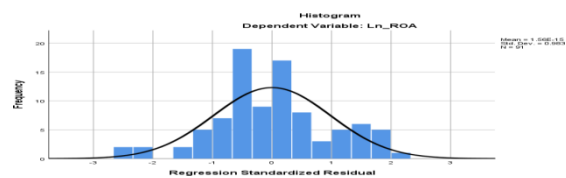


Figure 2. Histogram Normality Test After Transformation



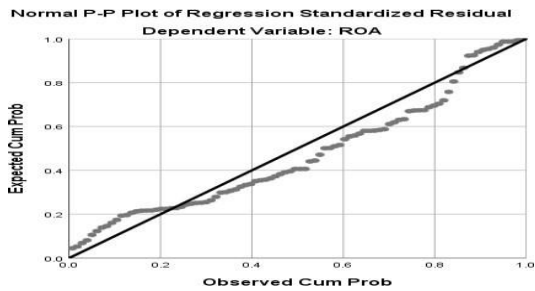


Figure 3. Normal Probability Plot Test Before Transformation



Figure 3. Normal Probability Plot Test After Transformation

The normal probability plot shows that the data points approach and follow the diagonal line, indicating that the data is normally distributed.

The multicollinearity test determines if there is multicollinearity. The decision technique is VIF 10 and tolerance > 0.10 , which eliminates multicollinearity.

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
QR	.483	2.069
DAR	.445	2.247
PerputaranPresediaan	.884	1.131

Table 6. Multicollinearity Test Results Before Transformation

Based on Table above, the tolerance value of the variable is above 0.1 and the VIF value is below 10, it is

concluded that there is no multicollinearity.

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Ln_QR	.459	2.177
Ln_DAR	.416	2.402
Ln_PerputaranPersediaan	.855	1.170

Table 7. Multicollinearity Test Results After Transformation

Based on table above, the tolerance value of the variable is above 0.1 and the VIF value is below 10, it is concluded that there is no multicollinearity. The Durbin-Watson test is one way to check for autocorrelation (DW-test). Results of the Durbin-Watson autocorrelation test. Predictors: (Constant), QR, DAR, Dependent Variable: ROA, The result of the measurement is the number of samples is 92, $du = 1.7285$. $1.7285 < 1.925 < 4 - 1.7285$ or $1.7285 < 1.925$.

Autocorrelation Test Results After Model Transformation Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.093	.062	.71019	1.874

Table 8. Autocorrelation Test Results After Model Transformation Summary b

From table above, it shows that dw is 1.925. The result of the measurement is the number of samples is 92, $du = 1.7275$. $1.7275 < 1.874 < 4 - 1.7275$ or $1.7285 < 1.925 < 2.2725$, it can be concluded that there is no autocorrelation.



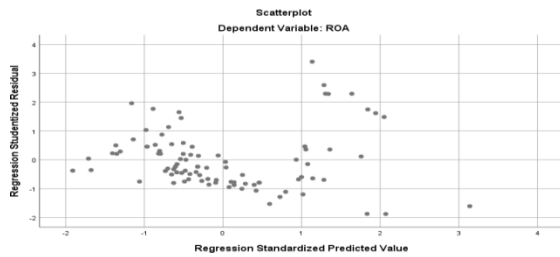


Figure 4. Heteroscedasticity Test Before Transformation

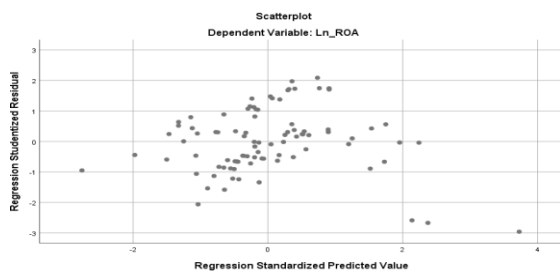


Figure 5. Heteroscedasticity Test After Transformation

Figure demonstrates that the data is randomly distributed and does not create a pattern, suggesting that there is no heteroscedasticity.

Model		Standardized Coefficients Beta	Std. Error	t	Sig.
1	(Constant)	-.019	.025	-.736	.464
	QR	.002	.005	.308	.759
	DAR	.206	.049	4.16	.0005
	PerputaranPresediaan	.002	.001	3.65	.0008

Table 9. Glejser Test Results Before Transforming Coefficients

Based on Table 9, which indicates the quick ratio variable is significant above 0.05, there is no heteroscedasticity. Debt ratio and inventory turnover < 0.05, no heteroscedasticity. debt ratio and inventory

turnover variables above 0.05, it is concluded that there is no heteroscedasticity.

Model		Standardized Coefficients Beta	Std. Error	t	Sig.
1	(Constant)	-3.363	.396	-8.49	.0008
	Ln_QR	-.104	.135	-.116	.44769
	Ln_DAR	-.412	.227	-.287	.07181
	Ln_PerputaranPresediaan	.341	.122	.310	.00056

Table 10. Results of Multiple Linear Regression Analysis Coefficients

$$\text{Ln_ROA} = -3.363 - 0.104 \text{ Ln_QR} - 0.412 \text{ Ln_DAR} + 0.341 \text{ Ln_Inventory Turnover.}$$

1. If the quick ratio, debt ratio, and inventory turnover are all zero, the return on assets is -3.363 units.
2. The quick ratio coefficient is -0.104 units, suggesting that the other independent variables are fixed and the quick ratio is 2. The quick ratio coefficient is -0.104 units, suggesting that the other independent variables are fixed and the quick ratio is negative.
3. In other words, if the other independent variables remain constant and the debt ratio is negative, a rise in the debt ratio per unit lowers the return on assets by 0.412.
4. The inventory turnover coefficient is 0.341 units, which means that if the other independent variables are constant and negative inventory turnover increases return on assets by 0.341 units.





The coefficient of determination test measures the independent variable's impact on the dependent variable. The coefficient of determination is as follows :

Model	R Square	Adjusted R Square	Std. Error of the Estimate
1	.093	.062	.71019

Table 11. Koefisien Determinasi Model Summary

The corrected R Square (R2) is 0.062 or 6.2 percent, based on Table 11. The remaining 93.8 percent is affected by other factors. The F test examines the interaction of independent factors on the dependent variable.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.525	3	1.508	2.990	.035
	Residual	43.880	87	.504		
	Total	48.404	90			

Table 12. Statistical Test Results

Dependent Variable: Ln_ROA. Predictors (Constant),Ln_ LnQR, Ln_DAR Using Table 3.12, Fcount = 2.990, significant =0.035, and Ftable = 2.71 (91-4 = 87), H0 is rejected, and H1 is accepted (significant =0.035), indicating that the Quick ratio, debt ratio, and inventory turnover affect

the return on assets in companies listed on the Indonesia Stock Exchange from 2016 to 2019. The partial statistical test results are as follows, Quick ratio The ttable value is 1.987 (91-3=86) with a significant value of 0.444 and a tcount value of -0.769. The Quick ratio with tcount (-0.769) > ttable value (-1.987) and significance value (0.444) > 0.05, so that the Quick ratio has no effect on the return on assets of Consumer Goods Sector companies listed on the Indonesia Stock Exchange for the 2016-2019 period. Debt ratio ttable value is 1.987 (91-3=86) with a significant value of 0.073 and a tcount value of -1.813. The Debt ratio with tcount (-1.813) > ttable value (-1.987) and significance value (0.073) > 0.05 so that the debt ratio has no effect on the return on assets of Consumer Goods Sector companies listed on the Indonesia Stock Exchange for the 2016-2019 period. Inventory turnover ttable value is 1.987 (91-3=86) with a significant value of 0.006 and a tcount value of 2.805. Inventory turnover with a value of tcount (2.805) > ttable value (1.987) and a significance value of (0.006) 0.05 so that Inventory turnover has an effect on return on assets in Consumer Goods Sector companies listed on the Indonesia Stock Exchange for the 2016-2019 period.

CONCLUSION

The research found that the Quick ratio had no impact on return on assets in





firms listed on the Indonesia Stock Exchange from 2016 to 2019. Due to large receivables, high quick ratio cannot improve net profit. A low current ratio indicates a liquidity issue. Contrarily, a business with a high current ratio is undesirable due to the huge amount of idle money, which may decrease earnings potential[12].

The debt ratio has no impact on return on assets in the Consumer Goods Sector listed on the Indonesia Stock Exchange from 2016 to 2019. Total assets like as receivables and inventory cycle rapidly to generate cash, thus high debt does not decrease net income. elevated. Since the business expects a higher profit from short-term debt than long-term debt, the risk of interest rate changes is higher (high profit, high risk)[13]. The findings of this research show that inventory turnover affects return on assets in businesses listed on the Indonesia Stock Exchange from 2016 to 2019. High inventory that turns rapidly into cash to enhance net revenue. If the inventory turnover is too high, the number of goods stored in the warehouse is too little, so that if there is a loss of materials/goods on the market in an accident, it is outside the calculation, it may cause the company to disrupt its production activity[14].

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