

Analysis Of The Influence Of Financial Liquidity And Leverage On Profitability In Manufacturing Companies Listed On Idx 2015 – 2019

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ABSTRACT

The purpose of this study was to determine and analyze the effect of liquidity and financial leverage on profitability by using 5 samples of companies listed on the Indonesia Stock Exchange from 13 populations of Manufacturing Companies in the Automotive Sub-Sector and their Components. Sampling technique (Purposive Sampling). The test method used to determine the effect of the dependent and independent variables is multiple linear regression analysis. The results of this study state that there is a positive and significant effect between Liquidity on Profitability with a value of t arithmetic (2.652) > t table (2.07961) with a significance level of less than 0.05, namely (0.015 < 0.05). And there is a positive and significant influence between Leverage on profitability. This is evidenced by the value of t count (3.486) > t table (2.07961) with a significance level of less than 0.05, namely (0.002 < 0.05). Meanwhile, simultaneously there is the effect of Liquidity and Leverage on Profitability in Manufacturing Companies in the Automotive Sub-Sector and Its Components listed on the Indonesia Stock Exchange where the significance value of F is 0.008 where the significance value is less than 0.05.

Keywords: Liquidity; Leverage; Profitability.

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Introduction

The capital market is one way for companies to obtain financing from external parties. The tight business competition between companies requires companies to maximize their profits. Of the many companies listed on the Indonesia Stock Exchange, one of them is a manufacturing company. Manufacturing companies are companies that process raw materials into finished goods that are ready to be marketed to consumers.

The Indonesia Stock Exchange lists a wide range of manufacturing businesses, including basic and chemical industries, miscellaneous industries, and consumer products industries. Various industries are manufacturing industries in which the industry in its activities processes raw materials into a product or component. Due to the intense competition between companies in the automotive and component fields, companies must maximize their ability to thrive in this highly competitive industry. Profit is one of the factors that can help a company grow, a profitable company is a company that is able to achieve its goals.

The condition of a company's finances can be seen from the relevant financial statements. Financial reporting is an accounting process that presents company financial information where the information is used to carry out decision making by interested parties. Therefore, to find out whether a company is good or not, financial ratios are needed. Financial ratio analysis is a way to make comparisons of company financial data, financial ratios are the basis for interested parties of a company to see the company's financial health. There are several types of financial ratios, namely liquidity ratios, solvency ratios and profitability ratios.

The liquidity ratio is the ratio used to measure the company's capacity to pay off its short-term obligations using current assets owned by the company.

Leverage ratio is a ratio used by companies to determine how much of their assets are financed by debt.

Profitability is the ability of a company to generate profits within a certain period either by using assets or by using the company's capital.

Table 1. Average ROE, CR and DER values of automotive and component sub-sector companies listed on the Indonesia Stock Exchange 2015-2019

Year	2015	2016	2017	2018	2019
ROE	11%	12%	13%	13%	12%
CR	183%	211%	285%	278%	325%
DER	56%	48%	43%	43%	38%

Based on the table above, there are fluctuations in the Return on Equity (ROE) of the automotive and component businesses listed on the Indonesia Stock Exchange from 2015 to 2019. If this continues, it will cause problems for investors. Investors can withdraw funds that have been invested in the company so that the company will find it difficult to get funds for its operational activities. Then an assessment was carried out to understand what was the cause of the decline in ROE which in the end could be found a solution to deal with it

Based on the description that has been described above, the researchers are interested in conducting research with the title "Analysis of the Effect of Financial Liquidity and Leverage on Profitability in Manufacturing Companies listed on the Indonesia Stock Exchange".

Research Method

Research Object

The object of research is a target to get a certain goal about a thing that will be proven objectively. The annual financial statements of manufacturing companies listed on the Indonesia Stock Exchange from 2015 to 2019 which have issued financial statements are included in this accounting thesis.

Population and Sample

Population. The author selects 13 Manufacturing Companies in the automotive sub-sector and their components listed on the Indonesia Stock Exchange for the 2015-2019 period

Sample, The criteria for sampling that have been selected by the author are as follows: 1) Manufacturing companies in the automotive sub-sector and its components listed on the Indonesia Stock Exchange from 2015 to 2019. 2) Companies that have consistently published annual financial reports from 2015 to 2019 and have been audited. 3) Manufacturing companies in the automotive sub-sector and their components that are actively traded on the Indonesia Stock Exchange in 2015-2019. 4) Manufacturing companies in the automotive sub-sector and their components listed on the Indonesia Stock Exchange which have been researched and generated positive net profit after tax during 2015-2019.

Table 2. List of Sample Companies

Code	Company name
ASII	Astra International Tbk.
AUTO	Astra Otoparts Tbk.
BRAM	Indo Kordsa Tbk.
INDS	Indospring Tbk.
SMSM	Selamat Sempurna Tbk.

Types and Sources of Research

Researchers used secondary data types in this study. Secondary data comes from the annual financial statements of the Indonesia Stock Exchange for the automotive and component industry sub-sectors for 2015-2019 which can be viewed on the official website of the Indonesia Stock Exchange.

Research Variables

Independent Variable

Liquidity (CR) Sartono (2008:116) Liquidity ratio is the ability of a company to meet its short-term obligations. The indicators that the author uses to measure this variable are the Current Ratio indicators according to Martono (2001:55), namely: Current Ratio (CR) = (Current Assets)/(Current Liabilities) x 100%

Leverage (DER) According to Sawir (2000:13) explains that the Leverage Ratio is a measure of the solvency of a company. The ratio of debt to equity (or assets to debt) describes the relationship between the two. This ratio can be used to determine how much debt is used to fund assets. Debt to Equity Ratio (DER) = (Current Assets)/(Current Debt)

Dependent variable

The dependent variable (the dependent variable) is the variable that can be influenced by the independent variable. In this thesis, the dependent variable is Profitability. According to Kasmir (2008:196) "Profitability ratio is a ratio to assess the company's ability to seek profit". Return on Equity (ROE)= EBIT/(Total Equity)

Results

Research Findings

Descriptive statistics

Table 3. Descriptive Statistical Results

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	Variance
CR	25	1,13	5,83	2,5640	1,40945	1,987
DER	25	,10	,98	,4560	,26174	,069
ROE	25	,00	,32	,1224	,09884	,010
Valid N (listwise)	25					

Source: Secondary Data processed using SPSS 25

Classic assumption test

Normality Test

Table 4. Kolmogorov-Smirnov . Non-Parametric Test Results

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		25
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	,08857321
Most Extreme Differences	Absolute	,256
	Positive	,256
	Negative	-,113
Test Statistic		,256
Asymp. Sig. (2-tailed)		,000 ^c

a). Test distribution is Normal. b) Calculated from data. c) Lilliefors Significance Correction.
 Source: Secondary Data processed using SPSS 25

It can be seen in the table that the result of the Kolmogorov-Smirnov statistical test value is 0.256 and the result of Asymp.sig (2-tailed) 0.000 so it does not meet the requirements of the normality test, therefore it is carried out. After the transformation, the graph shows that the data is spread over the transverse diagonal line, indicating that the assumptions of the normality test are met.

Table 5 Kolmogorov-Smirnov . Non-Parametric Test Results

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		25
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	,10508547
Most Extreme Differences	Absolute	,076
	Positive	,076
	Negative	-,076
Test Statistic		,076
Asymp. Sig. (2-tailed)		,200 ^{c,d}

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.
- d. This is a lower bound of the true significance.

Source: Secondary Data processed using SPSS 25

The Kolmogorov-Smirnov statistical test yielded a value of 0.76, while Asymp.Sig (2-tailed) yielded a value of 0.200. It meets the requirements of the normality test.

Multicollinearity Test

Multicollinearity test aims to determine whether each independent variable has a significant relationship

Tabel 6. Tolerance dan VIF

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
1 SQRT_CR	,321	3,113
SQRT_DER	,321	3,113

Source: Secondary Data processed by the author

The VIF value of the independent variable in this study was 3.113 and 3.113 the value was 10. And the Tolerance value of the independent variable was 0.321 and 0.321 the value was 0.10. So it can be concluded that there is no multicollinearity problem.

Heteroscedasticity Test

Heteroscedasticity test was used in this study to see if there was a change in the observed variance in the regression model. there is no clear pattern, the pattern in the graph looks random. So it can be concluded that there is no heteroscedasticity problem.

Autocorrelation Test

Autocorrelation test is used to check whether there is a relationship between errors that occur in period t-1 and errors that occur in the regression model of period t.

Table 7 Durbin-Watson . Autocorrelation Test Results

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,682 ^a	,465	,417	,10976	,742
a. Predictors: (Constant), LAG_SQRT_DER, LAG_SQRT_CR					
b. Dependent Variable: LAG_SQRT_ROE					

Source: Secondary Data processed using SPSS 25

The value of D (0.742) where the value is smaller than the DU limit (1.5495) and the value of D (0.742) is smaller than the value of 4 – DU (2.4505). The data is transformed using the Cochran Orcutt transformation because there is a positive autocorrelation.

Table 8. Durbin-Watson Autocorrelation Test Results after Data Transformation

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,606 ^a	,368	,307	,08366	2,188
a. Predictors: (Constant), LAG_SQRT_DER, LAG_SQRT_CR					
b. Dependent Variable: LAG_SQRT_ROE					

Source: Secondary Data processed using SPSS 25

The value of D (2.188) is greater than the upper limit of DU (1.5464) and the value of D (2.188) is less than the value of 4 – DU (2.4536). So there is no autocorrelation problem.

Multiple Regression Results

After analyzing the multiple linear regression model, the results obtained from a regression equation are as follows:

Table 9. Regression equation

Coefficients^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-,246	,118		-2,083	,050
1 LAG_SQRT_CR	,283	,107	,773	2,652	,015
LAG_SQRT_DER	,840	,241	1,016	3,486	,002
a. Dependent Variable: LAG_SQRT_ROE					

Source: Secondary Data processed using SPSS 25

$$Y = b_0 + b_1X_1 + b_2X_2$$

$$ROE = -0,246 + (0,283) X_1 + (0,840) X_2$$

$$ROE = -0,246 + 0,283 CR + 0,840 DER$$

Hypothesis testing

Coefficient of Determination Analysis (Adjusted R2)

Adjusted R2 coefficient analysis is to see how much the independent variable can explain the dependent variable.

Table 10. Results of the Coefficient of Determination Analysis (Adjusted R2)

Model Summary^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,606 ^a	,368	,307	,08366	2,188

a. Predictors: (Constant), LAG_SQRT_DER, LAG_SQRT_CR
 b. Dependent Variable: LAG_SQRT_ROE

Source: Secondary Data processed using SPSS 25

With this, 30.7% of the ROE or Return on Equity variables can be explained by the liquidity and financial leverage variables and the remaining 69.3% is explained by factors which in this study are not described as variables.

F Statistic Test

The F statistical test in this study was used to determine whether or not there was an effect of the independent variable and the dependent variable simultaneously or together. The results of the F statistical test in this study are as follows:

Table 11. F Statistical Test Results

ANOVA^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	,085	2	,043	6,106	,008 ^b
Residual	,147	21	,007		
Total	,232	23			

a. Dependent Variable: LAG_SQRT_ROE

b. Predictors: (Constant), LAG_SQRT_DER, LAG_SQRT_CR

Source: Secondary Data processed using SPSS 25

The value of the F table after being calculated using $F(k; N-k)$ is 3.44. The value of calculated F (6,106) > F table (3,44). So it can be said that all independent variables have a significant effect on the dependent variable simultaneously.

Test Statistics t

In this study, the t statistical test was conducted to determine whether the effect of the independent variable on the dependent variable was significant. The following table shows the test results from this study:

Table 12. T Statistical Test Results

Coefficients^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-,246	,118		-2,083	,050
LAG_SQRT_CR	,283	,107	,773	2,652	,015

LAG_SQRT_DER	,840	,241	1,016	3,486	,002
a. Dependent Variable: LAG_SQRT_ROE					

Source: Secondary Data processed using SPSS 25

The variable Current Ratio (CR) has a t-count value (2.652), a significance value of 0.015. t arithmetic (2.652) > t table (2.07961) and a significance level of 0.05, namely (0.015 < 0.05) it can be concluded that there is a significant positive effect of the Current Ratio (CR) variable on the Return on Equity (ROE) variable.

DER variable which has t count is 3,486. t count (3.486) > t table (2.07961) and the significance level is less than 0.05 to be precise (0.002 < 0.05) indicates that the Debt to Equity Ratio (DER) has a significant positive effect on the Return on Equity (ROE) variable.

Table 13. Summary of Hypothesis Testing

code	Hypothesis	Results
H1	Liquidity has a positive effect on profitability	Accept
H2	<i>Financial Leverage has a positive effect on Profitability</i>	Accept

Conclusion

1) There is a significant positive effect between liquidity on profitability in automotive and component manufacturing sub-sector companies listed on the Indonesia Stock Exchange for the 2015-2019 period. This is evidenced by the magnitude of t count (2.652) > t table (2.07961) with a significant level of < 0.05, which is 0.015. In this case, it can be concluded that the liquidity variable has a significant positive effect on profitability. 2) There is a significant positive effect of leverage on profitability in automotive and component sub-sector manufacturing companies listed on the Indonesia Stock Exchange for the 2015-2019 period. This is proven by t count (3.486) > t table (2.07961) and the significance level is less than 0.05, which is 0.002. So the hypothesis which states that leverage has a positive effect on profitability is proven true. 3) There is a simultaneous influence of Liquidity and Leverage on the profitability of manufacturing companies in the automotive and component sub-sectors listed on the Indonesia Stock Exchange for the period 2015-2019. This is supported by the results of the F test used in this study which shows that the significant value of F is 0.008 which is smaller than 0.05 which indicates that the hypothesis that leverage and liquidity simultaneously affect the company's profitability is valid.

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