

**Leverage Determinants Analysis Of JPMB  
Manufacturing Companies Registered in  
Indonesia Stock Exchange 2014-2018** **105**

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*Research paper*

**Abstract**

This study aims to determine the effect of liquidity, growth opportunities, profitability and company size on the leverage of manufacturing companies listed on the Indonesia Stock Exchange. The period used in this research is 5 years, starting from 2014 to 2018. The population in this study is 126 manufacturing companies that have been and are still listed on the Indonesia Stock Exchange for the period 2014-2018. The sample selection technique was purposive sampling method and obtained 40 manufacturing companies that were used as samples. The data analysis technique used is multiple linear regression. Based on the results of data analysis, liquidity and profitability partially have a negative and significant effect on Leverage, Growth Opportunity has no effect on Leverage, Firm Size has no effect on Leverage. We recommend that if the independent variable is not statistically significant in affecting the dependent variable, there is no indication of heteroscedasticity.

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## **INTRODUCTION**

Nowadays companies are required to continue to increase production and innovation effectively and efficiently. The very tight competition makes the company must have its own competitive advantage to compete with other companies. Management or financial management within a company plays an important role in improving company performance. Financial managers are required to be responsible for managing and making capital structure decisions related to funding or financing activities for all operational and investment activities. According to Horne and Wachowicz (2012: 2) which was translated by Dewi Firasasari, S.S., Msi., Ak, and Deny Arnos, Mhum. "Financial management is concerned with obtaining funding, and asset management with some general objectives as the background".

One of the important decisions made by a financial manager is about the composition of the company's use of its own capital, share capital, and short-term and / or long-term debt. Ilham Fahmi (2015: 184) states that the capital structure is as "The capital structure is a description of the form of the company's financial proportion, namely between the capital owned by long-term debt (long-term liabilities) and its own equity (shareholders' equity). source of financing for a company ". According to Abdul Halim (2015: 81) capital structure is a comparison between total debt (foreign capital) and total equity / equity. The financial structure can be seen from the right side of the balance sheet, it consists of short-term debt, long-term debt and shareholder capital, while the capital structure is permanent financing consisting of long-term debt and shareholder capital only.

In terms of using debt to meet the company's funding needs, of course what you want is to generate profits, but the use of debt can also have an impact on losses where it is a risk from the use of debt. Debt causes a fixed expense, namely the principal of the loan and the interest expense to be paid. On the other hand, debt is one of the right sources of funds to fund company activities where the goal is to make a profit, but until now there is still no definite theory that can determine the optimal leverage composition. These factors cause company managers not to fully use capital to fund their companies, but also accompanied by the use of short-term debt and long-term debt that can reduce taxes.

There are companies that have relatively large debt, but there are also companies that have relatively small debt, this is what causes financial managers to examine the factors that influence determining the optimal leverage composition, so that maximum profit and company value can be achieved. Management in deciding the funding structure from internal and external parties must have very careful considerations. In the use of funds, companies can consider funds from external sources if funds from internal parties are deemed unable to meet the company's needs.

The decision to finance the company is a crucial determining factor in the company's operational activities besides that it also has its own risks for the company (Joni and Lina, 2010). It should be noted that if the company has large debts by increasing debt, then the risk of company bankruptcy is higher. Companies should also pay attention to tax issues, because some experts argue that excessive use of capital will reduce profitability. There are several studies to find out what factors affect leverage. Although there are other factors that influence the formation of leverage, in this study the variables to be discussed are limited to liquidity, growth opportunities, profitability and company size.

The company growth opportunities can be seen how the company reads the signals given by the market. In his research (Alom, 2014), said that if the market price of equity shows a value that is relatively higher than its book value, then actually that's when the market indicates that the company has the opportunity to grow. According to (Rajan and Zingales, 2015), stating that almost all capital structure theories reveal that there is a negative relationship between growth

opportunities and debt (leverage). The explanation is that companies with high growth opportunity values have more reserve costs and are therefore estimated to have lower debt (Rajan and Zingales, 2015).

This research is a relevant research from previous research by Rahmadian Widyarini (2014). Leverage is the ratio between a trader's own funds and the borrowed funds (level of debt) a trader borrows from his broker. Leverage sizes can range from 1: 1 to 1: 1000. "The most dominant factor affecting Manufacturing Companies listed on the Indonesia Stock Exchange is Leverage".

The difference is that this study examines manufacturing companies listed on the Indonesia Stock Exchange in the 2014-2018 period using research variables, namely liquidity, growth opportunities, profitability, and company size.

**Table 1.1 Leverage Acquisition (DER) for Manufacturing Companies listed on the Indonesia Stock Exchange 2014-2018**

Kode	<i>Leverage</i>				
	2014	2015	2016	2017	2018
BRPT	1.20%	0.88%	0.77%	0.81%	1.48%
BUDI	1.71%	1.95%	1.52%	1.46%	1.71%
DPNS	0.14%	0.14%	0.12%	0.15%	0.19%
EKAD	0.51%	0.33%	0.19%	0.20%	0.18
ETWA	3.41%	16.59%	162.19%	-10.19%	-5.36%
INCI	0.08%	0.10%	0.11%	0.13%	0.17%
SOBI	0.87%	0.65%	0.57%	0.98%	1.36%

Sumber : [www.idx.co.id](http://www.idx.co.id)

The data from the table above describes clearly and clearly, that manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018 are unstable and experience fluctuations. Then it can be seen that there are several Manufacturing Companies listed on the Indonesian Stock Exchange that have experienced a decrease in the acquisition of Leverage even though their company revenues have increased, this is an indication that the performance of these Manufacturing Companies is not yet optimal.

This study selected a sample of manufacturing companies because in the current industrial era, manufacturing companies are one of the main attractions in Indonesia today. The author's reason for conducting this research is to determine the factors that affect leverage in manufacturing companies.

This study has the advantage of observing objects in manufacturing companies, which of course will be seen if the use of debt greatly impacts the company's operational stability. So that the research results will be used as a reference representing the industrial sector in drawing the effect of debt in a company on its internal management.

### **Formulation of the problem**

From the background above, the main problem in this test is:

- 1.Does Liquidity affect the Leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018
- 2.Does the growth opportunity affect the Leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018
- 3.Does Profitability affect the Leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018

4. Does company size affect the leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018
5. What factors are more dominant in influencing the Leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018

### Scope of problem

Based on problem identification, the researcher provides problem boundaries so that the discussion research can achieve the expected goals. The limitation of the problem in this study lies in the object of research, namely manufacturing companies listed on the Indonesia Stock Exchange. The research period in manufacturing companies that was taken was in the 2014-2018 period, while the factors that influenced the company's leverage in this study, the researcher focused on the factors of liquidity, growth opportunities, profitability, and company size.

## LITERATURE REVIEW

### A. Leverage

Leverage (level of debt) or debt ratio is the ratio between total debt and total assets. The higher the ratio of leverage, the higher the level of risk that will be faced. Most creditors try to prevent a high leverage ratio, in the process the creditor will make an agreement with the company so that the company's leverage ratio does not exceed the agreed limit. The leverage ratio measures the extent to which a company funds its business by comparing its own funds (shareholders equity) that have been deposited with the amount of loans from creditors (creditors). The greater this ratio, the bigger the obligations and the lower the ratio, the higher the company's ability to fulfill its obligations. According to (Sugiyono, 2013: 480), the ratios commonly used are:

Debt Ratio (Debt to Total Asset Ratio):

$$\frac{\text{Total Debt}}{\text{Total Assets}} \times 100\%$$

This ratio shows the proportion between the liabilities held and all the assets owned. The higher the percentage yield, the greater the financial risk tends to be for creditors and shareholders

Debt to Equity Ratio or DER (Debt to Equity Ratio):

$$\frac{\text{Total Debt}}{\text{Total Equity}} \times 100\%$$

This ratio illustrates the ratio of debt and equity in company funding and shows the company's own capital ability to meet all of its obligations.

### B. Liquidity

Liquidity is how much the company's ability to meet its short-term obligations at maturity. The liquidity of a company can be seen from the balance sheet or financial report by comparing the amount of current assets with current liabilities. A liquid asset is an asset that can be converted into cash quickly without having to reduce the asset's price too much. According to (Brigham and Houston, 2017) explains the liquidity ratio where the liquidity ratio is a ratio that shows the relationship between cash and other company's current assets with current liabilities. There are two commonly used liquidity ratios, namely Current Ratio & Quick Ratio.

The study found some evidence that liquidity plays an important role in the factors that affect the capital structure. According to the theory of exchange in the capital structure there is a positive relationship between company liquidity and leverage. There is some evidence of a positive relationship between ownership structure and asset liquidity in companies. A high asset liquidity ratio can be considered by investors to be a positive signal because it indicates that the company can easily pay its bonds and is exposed to a low risk of bankruptcy.

### **C. Growth opportunity**

Growth opportunity is the growth opportunity for a company in the future (Mai, 2016). Another definition of growth opportunity is the change in total assets owned by the company (Kartini and Arianto, 2018). The amount of change in total assets measures the extent to which a company's earnings per share can be increased by leverage. Companies that have fast growth often have to increase their fixed assets. Thus, companies with high growth rates need more funds in the future and also hold more profits.

The retained earnings of companies with high growth rates will increase, and these companies will incur more debt to maintain the targeted debt ratio (Mai, 2016). Companies that predict that they will experience high growth in the future tend to prefer to use stocks to fund the company's operations, while companies that predict low growth will try to share low growth risks with creditors through debt issuance, which is generally in the form of debt. long term (Mai, 2016). One of the fundamental reasons for this pattern is that the floating cost of issuing ordinary shares is higher than that of bond securities. Thus, companies with high growth rates tend to use debt more than companies with slower growth.

### **D. Profitability**

According to (Brigham and Houston in Prabansari and Kusuma, 2015), states that companies that have a high rate of return on investment use relatively small debt. High rates of return make it possible to finance most of the funding needs with internally generated funds. Profitability is measured using Return On Assets (ROA) which shows the ability of the overall funds invested in assets to generate profits which is a comparison between net income and total assets (Weston and Copeland, 2017 in Prabansari and Kusuma 2018). Return On Assets (ROA) is a profitability ratio that measures a company's ability to generate profits from the assets used. ROA is a comparison between profit after interest and tax (EAT) with total assets owned by the company. A positive ROA shows that of the total assets used to operate, the company is able to provide profits for the company, while a negative ROA shows that of the total assets used, the company gets a loss. Based on this, if a company has a high ROA, the company has a great opportunity to increase its own capital growth, but if the total assets used by the company do not provide profit, the company will suffer losses and will inhibit its own capital growth.

The higher the profit, then the proportion of equity will increase or the proportion of debt will decrease. If it is related to the size of the company, where large companies tend to have a large proportion of loans, the negative correlation between profitability and the level of leverage in large companies is getting stronger, so that if there is a decrease in profits, the company will tend to cover its funding needs by increasing loans from outside.

### **E. Firm Size**

The size of the company shows how many assets or assets the company owns. The size of this company is measured by calculating the total assets that exist in each company (Nisa Fidyati, 2014 in Sa'diyah, 2017).

According to Riyanto (2016) in Rahmayani (2018), a large company where the company's shares are widespread, any expansion of share capital will only have a small effect on the possibility of loss or shift in control of the dominant party over the company concerned. Meanwhile, for a small company whose shares are scattered only in a narrow environment, the increase in the number of shares will have a big influence on the possibility of losing control of

the dominant party over the company concerned. Thus, large companies will be more willing to issue new shares to meet their needs to finance sales growth when compared to small companies, so that large companies tend to issue larger debt than small companies.

Firm size is positively related to the level of leverage. According to Trade Off Theory, large companies are generally less likely to go bankrupt, making it easier to withdraw loans from banks compared to small companies. Conversely, according to Pecking Order Theory, company size has a negative relationship with the level of corporate leverage. Pecking Order Theory provides a different argument through the existence of asymmetry information between internal and external parties in large companies, which tends to be less than small companies. Based on this, information on large companies is more transparent or more accessible to outsiders, so that companies tend to fund their finances from sources that are sensitive to internal information, namely equity through the capital market.

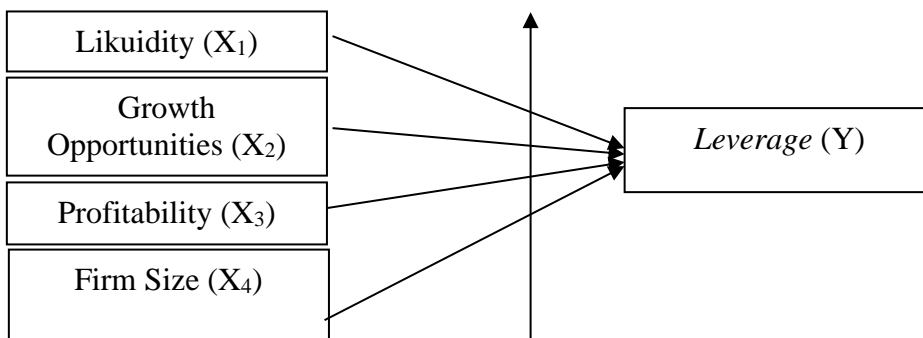
### F. Previous Research

There has been a lot of research related to leverage. Previous studies used different variables which are predicted to be the explanatory factors that influence capital structure decision making. Some of these studies include:

1. Heryanto, Florentina (2014). In this study, the independent variables used are fixed assets, growth opportunity, company size, profitability, company age. The dependent variable of this study is Leverage. The results of the tests conducted show that growth opportunity and company age have a positive effect on leverage, while fixed assets, company size and profitability have a negative effect on leverage.
2. Putri, Aditya Aulia W K (2017) In this study, the independent variables used are fixed assets (AT), growth opportunities, company size and profitability. The dependent variable of this study uses leverage which is measured by dividing total liabilities by total assets. The test results show that fixed assets (AT), growth opportunity and company size have a positive effect on leverage, while the level of profit has a negative effect on leverage.
3. Gunawan, Ayu Lestari (2015) In this study, the independent variables used are profitability, asset growth, company size, asset structure, and business risk. The dependent variable of the study uses financial leverage. The test results show that company size, fixed asset structure and business risk have a positive effect on leverage, while profitability and asset growth have a negative effect on leverage.

### Frame Work Research

A conceptual framework was created based on a review of previous theories and research, namely as follows:



Gambar 1.1 Frame Work Research



Information :

X1: Liquidity Independent Variable

X2: Growth Opportunity Independent Variable

X3: Independent Variable of Profitability

X4: Firm Size Independent Variable

Y: Dependent Variable Leverage (DER)

t1, t2, t3, t4, t5: Test t count (partial test)

### **Hypothesis**

The hypothesis is a temporary answer to the formulation of the research problem. The hypothesis of this study is as follows:

1. Liquidity affects the leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018.

In a financial system in which balance sheets are continuously marked to market, asset price changes appear immediately as changes in net worth, and eliciting responses from financial intermediaries who adjust the size of their balance sheets. We document evidence that marked-to-market leverage is strongly procyclical. Such behavior has aggregate consequences. Changes in dealer repos – the primary margin of adjustment for the aggregate balance sheets of intermediaries – forecast changes in financial market risk as measured by the innovations in the Chicago Board Options Exchange Volatility Index VIX index. Aggregate liquidity can be seen as the rate of change of the aggregate balance sheet of the financial intermediaries.

2. Growth opportunities affect the leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018.

According to the free cash flow hypothesis, managers receive utility from increasing firm size and the over-investment problem is more severe for firms with fewer growth opportunities. Considering the disciplinary role of leverage on the over-investment problem and ownership structure as a control mechanism to affect financing decisions, we hypothesize that the association between ownership structure and leverage is stronger for firms with fewer growth opportunities. We find that the association between equity ownership and leverage is significant for low-growth firms, but not for high-growth firms. The results mostly hold when sample firms are partitioned into large and small firms to directly control for the effect of firm size on the association between ownership structure and leverage.

3. Profitability has an effect on the leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018.

This is in line with the pecking-order theory, implying that firms mainly use internal financing over external financing to achieve higher profitability. Profitable consulting firms also tend to use less short-term and long-term debt, according to the results. Moreover, the results show that larger firms in terms of employees generally are more profitable. For age and liquidity, no overall conclusive relationship with profitability could be found. Lastly, the results show a positive relationship when including last year's debt ratios but is only significant for long-term debt.

4. Company size affects the leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018.

we find that the magnitude of the effect of leverage on operating performance is non-monotonic and conditional on firm size. While our panel regression results indicate that leverage has a negative effect on performance across firm size subsamples, our year-by-year cross-sectional regression results show that the effect of leverage on performance is positive for small firms and is negative for large firms.

5. Liquidity effect on the Leverage of manufacturing companies listed on the Indonesia Stock Exchange in 2014-2018.

Operating liquidity and financial leverage are two significant aspects of overall firm management. Operating liquidity refers to the balance between resources in the form of cash or readily convertible into cash (current assets) and liabilities for which cash will be required soon (current liabilities). Financial leverage states the relationship between borrowed funds and owner's funds in the capital structure of a firm. It includes debt, common equity and preferred equity that are used to finance the firm's total assets, operations and financial growth.

## **RESEARCH METHODS**

### **Population and Research Sample**

#### **1. Population**

Population is a generalization area consisting of: objects or subjects that have certain qualities and characteristics applied by researchers to study and then draw conclusions related to the research problem (Sudjana, 2010). The population in this study is 126 manufacturing companies listed on the Stock Exchange, Indonesia 2014-2018.

#### **2. Samples**

The sample to be used in this study is a manufacturing company on the Indonesian Stock Exchange with certain criteria. The sampling method used was purposive sampling, which is the sample selected based on the criteria for conformity with the research criteria. Purposive sampling is one of the non-random sampling techniques where the researcher determines the sampling by determining special characteristics that are in accordance with the research objectives so that it is expected to be able to answer the research problem.

Some of the criteria used in research sampling are as follows:

1. The companies studied published financial reports consistently and legally during the 2014-2018 period.
2. Manufacturing companies include all data and information needed in this study
3. Do not have negative profit and equity consecutively during the 2014-2018 period.

As many as 40 companies in the manufacturing sector were selected according to purposive sampling, so that 200 data on annual financial statements of



manufacturing companies that meet the requirements from 2014-2018 will be used as research samples.

The data used in this study were Debt to Equity Ratio, Current Ratio, Thobin's q, Return on Assets, and Size. The dependent variable in this study is the Debt to Equity Ratio, while the independent variables used are Current Ratio, Thobin's q, Return on Assets, and Size.

### Operational Definition of Variables

**Table 3.2 Operational Definition of Variables**

No	Independent Variabels	Definition	Indicator	Scale
1	DER (Y)	Leverage or DER is the ratio between total debt and total assets	$DER = \frac{\text{Total Liabilitas}}{\text{Ekuiditas Pemegang Saham}}$	Ratio
2	Lik(X <sub>1</sub> )	Liquidity in this study is measured by comparing current assets with the total current liquidity that the company owns in one year	Current Ratio = $\frac{\text{Aktiva Lancar}}{\text{Hutang Lancar}}$	Ratio
3	Thob (X <sub>2</sub> )	Growth opportunities are changes in the total assets owned by the company	Thobin's q = $\frac{\text{Nilai pasar Ekuitas}}{\text{Nilai buku dari total aktiva}}$	Ratio
4	ROA (X <sub>3</sub> )	Profitability is a measure used to measure a company's ability to generate profits in a certain period	ROA = $\frac{\text{Laba Setelah Pajak}}{\text{Total Aset}}$	Ratio
5	Ukuran Perusahaan (X <sub>4</sub> )	Company size shows how many assets or assets the company owns	Size = Ln (Total aset)	Ratio

### Data analysis technique

The data analysis technique used is multiple linear regression analysis. Multiple linear analysis models are used to explain the relationship and how much influence the independent variables have on the dependent variable. A classic assumption test needs to be done to be able to perform multiple linear regression analysis. The steps for testing the classical assumptions in this study are as follows:

1. Classic Assumption Test
  - a. Normality test
  - b. Multicollinearity Test
  - c. Autocorrelation Test
  - d. Heteroscedasticity Test
2. Multiple Linear Regression Analysis

In this study, regression analysis was used to test this study using multiple linear regression. The regression model testing used in this study is as follows:

$$DER_{it} = \alpha + \beta_1. LIK + \beta_2. Thob + \beta_3. ROA + \beta_4. SIZE + \varepsilon$$

Information :

DER = Leverage

$\alpha$  = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$  = Regression Coefficient

LIK = Liquidity

Thob = Growth Opportunity Ratio

ROA = Profitability

SIZE = Company Size

$\varepsilon$  = Error

## RESULTS AND DISCUSSION

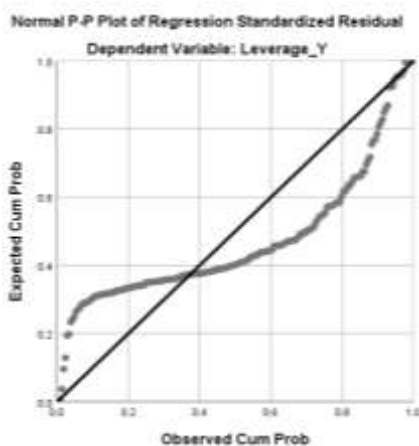
Classic assumption test

The testing of classical assumptions with the SPSS 25.00 program carried out in this study includes:

### 1. Normality Test

Normality test aims to test whether in the regression model, confounding or residual variables have a normal distribution (Ghozali, 2016: 154). Data normality testing can be done using two methods, graphs and statistics. The normality test of the graph method uses a normal probability plot, while the normality test of the statistical method uses the one sample Kolmogorov Smirnov Test.

**Gambar 4.1 Normal P Plot**



Data that is normally distributed will form a straight diagonal line and plotting the residual data will be compared with the diagonal line, if the distribution of the residual data is normal, the line describing the real data will follow the diagonal line (Ghozali, 2016). Data that is normally distributed will form a straight diagonal line and plotting the residual data will be compared with the diagonal line, if the residual data distribution is normal, the line describing the real data will follow the diagonal line (Ghozali, 2016). The test results using SPSS 25.00 are as follows:

**Table 4.2. One Sample Kolmogorov Smirnov Test Result**  
**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		200
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	1.56104735
Most Extreme Differences	Absolute	.145
	Positive	.089
	Negative	-.145
Test Statistic		.145
Asymp. Sig. (2-tailed)		.059 <sup>c</sup>
Monte Carlo Sig. (2-tailed)	Sig.	.229 <sup>d</sup>
	99% Confidence Interval	
	Lower Bound	.046
	Upper Bound	.411

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Based on 200 sampled tables with starting seed 926214481.

Source : Data Form Attachment (2020)

From the output in table 4.2, it can be seen that the significance value (Monte Carlo Sig.) Of all variables is 0.229 If the significance is more than 0.05, then the residual value is normal, so it can be concluded that all variables are normally distributed.

### Heteroscedasticity test

**Table 4.3. Glejser Test Result**

Model	Coefficients <sup>a</sup>				Collinearity Statistics	
	Unstandardized Coefficients	Std. Error	Beta	t	Sig.	Tolerance VIF
(Constant)	68062878.274	61533892.275	1.106	.270		
Liquiditas_X1	.232	.025	.381	8.160	.255	.927
Peluang_Pertumbuhan_X2	-.001	.003	-.013	-.441	.756	.989
Profitabilitas_X3	.516	.044	.578	3.687	.342	.644
Ukuran_Perusahaan_X4	.047	.020	.120	1.316	.818	.627

a. Dependent Variable: Abs\_RES

Table 4.3 shows the significance value of the Liquidity variable (X1) of 0.927 where the value of this variable is greater than 0.05, so it can be concluded that there are no symptoms of heteroscedasticity. Growth Opportunity (X2) did not show heteroscedasticity symptoms. Profitability (X3) is 0.644 where the value of this variable is greater than 0.05, so it can be concluded that the Profitability Variable (X3) has no symptoms of heteroscedasticity. Company Size (X4) is 0.627 where the value of this variable is greater than 0.05, so it can be concluded that the Company Size Variable (X4) has no heteroscedasticity symptoms.

**Autocorellation Test**

**Table 4.4. Autocorellation Test**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.829 <sup>a</sup>	.688	.682	460127266.9306	1.869
1					

a. Predictors: (Constant), Ukuran\_Perusahaan\_X4, Peluang\_Pertumbuhan\_X2, Liquiditas\_X1, Profitabilitas\_X3

b. Dependent Variable: Leverage\_Y

Sumber : Data diolah dari lampiran 3 (2020)

From table 4.4 above, with a Durbin-Watson value of 1,869 and a sample size of 40 (n), the number of independent variables 4 (k = 4), the Durbin-Watson value, DW is 1,869 greater than the upper limit (du) 1,720 and less than 4 -1,720 (4-du), with a table value at the 5% significance level, it can be concluded that there is no autocorrelation in this regression model, or the calculation can be concluded that the DW value lies in the test area. with an upper limit (du) of 1.720 and a lower limit (dl) of 1.284.

**Results of Multiple Regression Analysis**

**Table 4.5. Results of Multiple Regression Analysis**

Model	Coefficients <sup>a</sup>					Collinearity Statistics	
	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.	Toleran	VIF
1 (Constant)	68062878.274	61533892.275		1.106	.270		
Liquiditas_X1	.232	.025	.381	9.180	.000	.927	1.079
Peluang_Pertumbuhan_X2	.001	.003	.013	.311	.756	.989	1.011
Profitabilitas_X3	.516	.044	.578	11.597	.000	.644	1.552
Ukuran_Perusahaan_X4	.047	.020	.120	2.379	.018	.627	1.594

a. Dependent Variable: Leverage\_Y

Based on these results, the simple linear regression equation described above is as follows:  
 Based on these results, the simple linear regression equation has the formulation:  $Y = a + bX1 + bX2 + bX3 + bX4 + e$ , in order to obtain the equation :  $Y = 680,274 + 0,232X1 + 0,001X2 + 0,516X3 + 0,047X4 + e$

a.The constant value (a) of 680,274 indicates the amount of Leverage (Y) if Liquidity (X1), Growth Opportunity (X2), Profitability (X3), Company Size (X4) and Leverage (Y) are equal to zero.

b.The value of the liquidity regression coefficient (X1) (b1) of 0.232 indicates the magnitude of the role of Liquidity (X1) on Leverage (Y) assuming the variable Leverage (Y) is constant. This means that if the Liquidity factor (X1) increases by 1 unit of value, it is predicted that Leverage (Y) will increase by -0.232 units of value assuming constant Leverage (Y).

c.The regression coefficient value of Growth Opportunity (X2) (b1) of 0.001 indicates the

magnitude of the role of Growth Opportunity (X2) on Leverage (Y) assuming the variable Leverage (Y) is constant. This means that if the Growth Opportunity factor (X2) increases by 1 unit of value, it is predicted that Leverage (Y) will increase by 0.001 unit value assuming constant Leverage (Y).

d. The value of the Profitability regression coefficient (X3) (b1) of 0.516 indicates the magnitude of the role of Profitability (X3) on Leverage (Y) assuming the variable Leverage (Y) is constant. This means that if the Profitability factor (X3) increases by 1 unit of value, it is predicted that Leverage (Y) will increase by 0.516 units of value assuming constant Leverage (Y).

e. The regression coefficient value of Company Size (X4) (b1) is 0.047, indicating the role of Company Size (X4) on Leverage (Y), assuming the variable Leverage (Y) is constant. This means that if the company size factor (X4) increases by 1 unit of value, it is predicted that Leverage (Y) will increase by 0.047 units of value assuming constant Leverage (Y).

## Determination Test Result

**Table 4.6. Determination Koefficient**

Model	R	R Square	Model Summary <sup>b</sup>		
			Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.829 <sup>a</sup>	.688	.682	460127266.93061	1.869

a. Predictors: (Constant), Ukuran\_Perusahaan\_X4, Peluang\_Pertumbuhan\_X2, Liquiditas\_X1, Profitabilitas\_X3

b. Dependent Variable: Leverage\_Y

Based on table 4.6, it can be seen that the adjusted R square value is 0.682 or 68.2%. This shows if the variable Liquidity (X1), Growth Opportunity (X2), Profitability (X3), Company Size (X4) can explain the variable Leverage (Y) of 68.2%, the remaining 31.8% (100% - 68, 2%) explained by other variables outside this research model. For example, dividends are part or all of the company's profits in running the business which are distributed to shareholders (Tandelilin, 2014: 32). And like the leverage variable, Halim (2015) defines it as "the degree of firm borrowing", meaning that leverage is the level of the company's loan. Based on the above definitions, it can be concluded that what is meant by leverage is the level of the company's ability to use assets and / or funds that have fixed expenses (debt and / or special business) in order to realize the company's goals to maximize the company's owner's wealth.

## HYPOTHESIS TEST RESULTS

**Table 4.7. Parsial Test(t)**

Model	Coefficients <sup>a</sup>					Collinearity Statistics	
	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Tolerance	VIF
1 (Constant)	68062878.274	61533892.275		1.106	.270		
Liquiditas_X1	.232	.025	.381	9.180	.000	.927	1.079
Peluang_Pertumbuhan_X2	.001	.003	.013	.311	.756	.989	1.011
Profitabilitas_X3	.516	.044	.578	11.597	.000	.644	1.552
Ukuran_Perusahaan_X4	.047	.020	.120	2.379	.018	.627	1.594

a. Dependent Variable: Leverage\_Y

a. Hypothesis Testing The Effect of Variable Liquidity (X1) on Variable Leverage (Y) The form of hypothesis testing based on statistics can be described as follows:

Decision Making Criteria: From table 4.7, it is obtained that the tcount value is 9,180 With  $\alpha = 5\%$ , t table (5%; 40-k "(4)" = 36) obtained a t table value of 2.028. , likewise with a significance value of  $0.000 < 0.05$ , it can be concluded that the first hypothesis is accepted, meaning that the Liquidity variable (X1) has a significant effect on the Leverage (Y) variable. This is in line with research conducted by Heryanto, Florentina (2014). The results of the tests conducted show that growth opportunity and company age have a positive effect on leverage, while fixed assets, company size and profitability have a negative effect on leverage.

b. Hypothesis Testing The Effect of Growth Opportunity Variables (X2) on Leverage Variables (Y) The form of hypothesis testing based on statistics can be described as follows:

Decision Making Criteria: From table 4.7, it is obtained the t-value of 0.311 With  $\alpha = 5\%$ , t table (5%; 40-k "(4)" = 36), the t table value is 2.028. , Likewise, with a significance value of  $0.756 > 0.05$ , it can be concluded that the second hypothesis is rejected, meaning that the Growth Opportunity variable (X2) has a significant effect on the Leverage (Y) variable. This is in line with research conducted by Widyarini, Rahmadian (2014), the independent variable on liquidity, growth opportunities. The dependent variable is leverage. This study uses multiple linear analysis methods to test the hypothesis, and the result is that liquidity, growth opportunities, profitability and company size have a negative effect on leverage, while collateral and dividend payments have a positive effect on leverage.

c. Hypothesis Testing The Effect of Variable Profitability (X3) on Leverage Variables (Y) The form of hypothesis testing based on statistics can be described as follows:

Decision Making Criteria: From table 4.7, the tcount value is 11.597 With  $\alpha = 5\%$ , t table (5%; 40-k "(4)" = 36), the t table value is 2.028. t table (2.028), as well as the significance value of  $0.000 < 0.05$ , it can be concluded that the third hypothesis is accepted, meaning that the Profitability variable (X3) has a significant effect on the Leverage variable (Y). This is in line with the research conducted by Yusralaini, Hardi, Septi Dwiani (2018), The results obtained after conducting the test, namely company size, growth, profitability, and ownership structure have a significant effect on capital structure. Asset structure does not have a significant effect on capital structure.

d. Hypothesis Testing The Effect of Variable Firm Size (X4) on Variable Leverage (Y) The form of hypothesis testing based on statistics can be described as follows:

Decision Making Criteria: From table 4.7, it is obtained the tcount value of 2.379 With  $\alpha = 5\%$ , t table (5%; 40-k "(4)" = 36) obtained a t table value of 2.028 From the description it can be seen that tcount (2.379) > ttable (2.028) Likewise, with a significance value of  $0.018 < 0.05$ , it can be concluded that the fourth hypothesis is accepted, meaning that the firm size variable (X4) has a significant effect on the leverage variable (Y). This is in line with research conducted by Alom, Khairul (2016), The results obtained after testing are that company size has a significant effect on capital structure. Asset structure does not have a significant effect on capital structure.



## CONCLUSION

This study attempts to answer the research objectives, namely to find out how the influence of Operational Costs on the financial performance of Manufacturing Companies Listed on the Indonesia Stock Exchange. Based on the results of research and discussion in the previous chapter, it can be concluded as follows:

1. From The Result It can be concluded that the first hypothesis is accepted meaning that the Liquidity variable (X1) has a significant effect on the leverage variable (Y).
2. From the Result it can be concluded that the second hypothesis is rejected, meaning that the Growth Opportunity (X2) variable has no significant effect on the Leverage (Y) variable.
3. From the result it can be concluded that the third hypothesis is accepted, meaning that the Profitability variable (X3) has a significant effect on the Leverage (Y) variable.
4. From the result it can be concluded that the fourth hypothesis is accepted, which means that the firm size variable (X4) has a significant effect on the leverage variable (Y).
5. From the results of the calculation of the regression analysis that has been carried out, it shows that some of these variables have a positive and significant effect on Leverage.

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## Attachment

The following is a list of companies that are included in purposive sampling:

**Table 3.1 List of sample manufacturing companies according to purposive sampling**

No	Name Of Company	Code Of Company
1	Akhasa Wira International Tbk.	ADES
2	Tiga Pilar Sejahtera Food Tbk.	AISA
3	Alakasa Industrindo Tbk.	ALKA
4	Asiaplast Industriest.	APLI
5	Astra Otoparts Tbk.	AUTO
6	Indo kordsa Tbk.	BRAM
7	Berlina Tbk.	BRNA
8	Wilmar Cahaya Indonesia Tbk.	CEKA
9	Citra Tubindo Tbk.	CTBN
10	Gajah Tunggal Tbk.	GJTL
11	Champion Pacific Indonesia Tbk.	IGAR
12	Indorama Syntetics Tbk.	INDR
13	Indospring Tbk.	INDS
14	Indopoly Swakarsa Industry Tbk.	IPOI
15	Budi Starch and Sweetener Tbk.	BUDI
16	Japfa Tbk.	JPFA
17	Kimia Farma (Persero) Tbk.	KAEF
18	KMI Wire And Cable Tbk.	KBLI
19	Kabelindo Murni Tbk.	KBLM
20	Kedawung Setia Industrial Tbk.	KDSI
21	Multistrada Arah Sarana Tbk.	MASA
22	Martina Berto Tbk.	MBTO
23	Nipress Tbk.	NIPS
24	Pan Brothers Tex Tbk.	PBRX
25	Pelangi Indah Canindo Tbk.	PICO
26	Prima Alloy Steel universal Tbk.	PRAS
27	Pyridam Farma Tbk.	PYFA
28	Ricky Putra Globalindo Tbk.	RICKY
29	Supreme Cable Manufacturing and Commerce Tbk.	SCCO
30	Sekar Laut Tbk.	SKLT
31	Holcim Indonesia Tbk.	SMCB

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32	Sorini Agro Asia Coorporindo Tbk.	SOBI
33	Indo Acidatama Tbk.	SRSN
34	Siantar Top Tbk.	STTP
35	Surya Toto Indonesia Tbk.	TOTO
36	Trisula Internasional Tbk.	TRIS
37	Trias Sentosa Tbk.	TRST
38	Unggul Indah Cahaya Tbk.	UNIC
39	Wismilak Inti Makmur Tbk.	WIIM
40	Ekadharna International Tbk.	EKAD

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Sumber : [www.sahamok.com](http://www.sahamok.com)