

Analysis of Factors Affecting Capital Structure of Manufacturing Companies

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ABSTRACT

Capital Structure is a combination of debt and equity. Funding decisions related to investment spending or financing activities. The funding sources can come from internal or external sources. In determining the optimal capital structure decision becomes a very difficult task for financial managers because the impact will involve the prosperity of the company and the people in it, the managers in charge of finding the right proportion of the use of funds for the company. The purpose of this study is to examine the factors that influence capital structure and obtain empirical evidence regarding the effect of Growth Opportunity, Asset Structure, and Sales Growth on Capital Structure in manufacturing companies listed on the Indonesia Stock Exchange. The research subjects are manufacturing companies listed on the Indonesia Stock Exchange for the 2017-2019 period. While the object of research includes Capital Structure, Growth Opportunity, Asset Structure, and Sales Growth. The research uses a panel data model, where in the early stages the selection of a panel data regression model is carried out in accordance with the research data. The selection of the most suitable panel data to be used is done by using the Chow test, Hausman test and Lagrange multiplier test. Based on the selected regression model, the research hypothesis was then tested. This study uses a purposive sampling technique to select companies to be sampled. The results of this study indicate that growth opportunity has a significant effect on capital structure, asset structure has no significant effect on capital structure and sales growth has a significant effect on capital structure.

Keywords: *Growth Opportunities, Asset Structure, Sales Growth, Capital Structure.*

1. INTRODUCTION

The existence of globalization and free market competition in this era requires companies to carry out strategic developments continuously in order to survive, develop and be able to avoid the threats of increasingly tight competitors. One strategy to avoid these threats, for example by carrying out various innovations and product development.

Every company is competing to try to innovate and develop its products in order to anticipate increasingly fierce competition from both large and small companies. To innovate and develop the company's products, of course, it costs money. Therefore, funding issues related to capital structure are very important in a company. In making funding decisions for a company, a financial manager must be able to allocate the cost of capital to be used. Capital is one of the most important things to start or develop a business. Therefore, a company must determine how much capital is needed in order to finance its business.

Funding needs can initially be financed using sources of funds from within the company. However, as the business grows, the cost of capital required increases. If the company is no longer able to use funds from within the company for financing, then the financial manager must use funds from

outside the company in order to meet the required capital costs, either by using long-term debt or short-term debt. Whether or not a company's funding decision is good can be seen from the capital structure.

Capital structure plays an important role in many companies. Capital structure is a way for companies to use multiple sources of funds to finance their operations and growth [1]. The size of the capital owned by the company will greatly affect all activities within the company. The company must be managed very well and professionally to achieve the goals of the company itself, the financial function itself is one of the most important functions in the company's activities because this function will relate to the interests of many parties such as creditors, shareholders and company management. The company must also carry out its operational activities in accordance with the objectives established by the company. Masnoon dan Saeed [2] state that capital structure decisions are one of the key financial decisions in financing assets and increasing business capital. According to Fahmi [3] capital structure is a description of the form of the company's financial proportions, namely between owned capital which comes from long-term debt, and own capital which is a source of financing for a company. Sudana [4] states that the capital structure is

related to the long-term spending of a company as measured by the comparison of long-term debt with its own capital.

Sources of funding can come from external or internal sources, internal funding sources can be obtained through cash flow in operations or retained earnings obtained from accumulated profits in previous periods, while funds obtained externally come from loans or the use of debt. Companies that use funding through debt will reduce tax costs and can increase returns for shareholders but by using debt as a source of funding for their companies, this company will increase financial risk, where companies must be able to pay interest on loans from these debts and pay them off when they fall due. . The use of debt will be more profitable when economic conditions are good because it lowers the cost of capital and increases returns for shareholders than using own capital.

Manufacturing companies are one of the companies that contribute greatly to foreign exchange and GDP (Gross Domestic Product), and are able to absorb a lot of workers. The Ministry of Industry of the Republic of Indonesia targets manufacturing companies to contribute 40 percent of GDP in the next few years [5]. Product development in the manufacturing industry will require large funding so it must be very careful in determining the capital structure Determination of the capital structure carried out by the company will also be influenced by several factors, including growth opportunity, asset structure, and sales growth.

Growth Opportunity is a growth opportunity owned by the company to develop in the future. The company can see the prospects that will be obtained in the future by looking at the opportunities for this growth. Research results by *Data* [6] state that Growth Opportunity has a significant relationship to capital structure. In research conducted by Arlita and Surjandari [7] states that there is no significant relationship between Growth Opportunity and capital structure.

Asset Structure is a factor that influences capital structure decision making. The larger the asset structure, the greater the use of debt in the capital structure, this shows that the more the number of fixed assets that can be used as debt guarantees by the company. Meanwhile, the smaller the asset structure owned by a company, the smaller the company's ability to guarantee long-term debt. According to Sari [8] the asset structure has no significant and significant effect on the capital structure of manufacturing companies listed on the IDX. This is also supported by Triyonoet sl.; [9] which states that the asset structure has no effect on the capital structure. While the results of research conducted by Buana and Khalid [10] are contrary to other researchers by stating that asset structure has a positive influence on capital structure.

Sales Growth is the difference between the total sales of the current period and the previous period compared to the sales of the previous period [11]. High or stable sales growth can have a positive impact on company profits so that it becomes a consideration for company management in determining the capital structure. Companies with high sales growth rates will tend to use debt in their capital structure. High sales growth rate, meaning that sales volume increases, so it is necessary to increase production capacity. Increasing production capacity, such as adding new machines, will

require large funds. Companies tend to use debt in the hope of increasing production volumes to offset high sales levels. The volume of production offsets the level of sales growth, so the profit from sales also increases and the company can use it to cover debt [12]. Previous research concluded that Sales Growth had a positive and significant effect on capital structure [13], while other researchers conclude that Sales Growth has a negative and significant effect on capital structure [14].

Based on the background and phenomena described above, the researchers are interested in conducting a study entitled *The Effect of Growth Opportunity, Asset Structure and Sales Growth on the Capital Structure of Manufacturing Companies listed on the IDX.*

2. LITERATURE REVIEW

2.1. Grand Theory

Pecking Order Theory. The pecking order theory in relation to the capital structure explains the order of preferences chosen by the company in meeting its funding needs. The first order is usually the manager will choose internal funding sources as primary funding, then followed by funding from external parties in the form of debt, and the last preference is the sale of company shares.. The internal funds are obtained from profits generated from the company's activities. The company will determine its target payout ratio by considering investment opportunities. The existence of a constant dividend policy, coupled with fluctuating profits, and unpredictable investment opportunities, the cash flow received by the company will fluctuate compared to investment expenditures over time.. If external funding is required, the company will issue the safest securities first. Companies will start with debt, then with mixed securities such as convertible bonds, and then perhaps stocks as a last resort [15]

Agency theory. The concept of agency theory initiated by Scott [16] explains a concept about the relationship between shareholders as principals who employ an agent to carry out a task for the benefit of the principal. According to the trade off theory approach, the capital structure is configured in such a way as to minimize conflicts between different parties in the company. Conflicts that occur between shareholders and managers usually revolve around the concept of free cash flow. Managers have a tendency to maintain company resources so that managers can control these resources. Debt is believed to be a strategy to reduce agency conflict. When the company references debt, the manager has no choice but to issue cash from the company to pay interest.

Trade-off theory. Trade off theory explains the relationship between taxes, bankruptcy risk and the use of debt caused by

capital structure decisions taken by the company [17]. This theory is a balance between the advantages and disadvantages of using debt. The basic assumption used in the trade off theory is the existence of asymmetric information that explains the capital structure decisions taken by a company, namely the existence of information owned by the management of a company where the company can convey information to the public. This model implicitly states that companies that do not use loans at all and companies that use financing their investments with loans entirely are bad. The best decision is a moderate decision by considering both financing instruments

2.2. Operational Theory

Capital Structures. According to Halim [18], Capital Structure refers to the capital mix of a company consisting of a combination of debt and equity where debt is divided into short-term debt, long-term debt, while equity is divided into common stock, preferred stock and retained earnings. The capital structure can be said to be optimal when it reaches a state where the proportion between debt and equity is balanced. However, many investors think it is better to invest in companies that have strong balance sheets that reflect low levels of debt and high equity. But in fact, it is not only the high level of debt that is worrying but the low level of debt should also be worried because it means that the company relies too much on its equity and does not use its assets efficiently. will increase, and so will the value of the company.

There are two ratios that can be used to calculate the optimization of the use of capital, namely:

- a) Debt to Equity Ratio = $\frac{\text{Total Liabilities}}{\text{Total Equity}}$
- b) Weighted Average Cost of Capital = $(E/V \times Re) + ((D/V \times Rd) \times (1 - T))$

Growth Opportunity. Growth Opportunity is a measure of the assets owned by the company. The size of a company affects the capital structure because this manufacturing company is required to develop its investment. The size of the company also determines their openness to outside parties, thus encouraging companies to obtain funds from external parties

Asset Structures. According to Kesuma [19] "asset structure is wealth or economic resources owned by a company that is expected to provide benefits in the future". The asset structure shows the comparison between the company's non-current assets to the total assets of the company. The size of the assets owned by the company can affect the use of capital. Companies whose assets are adequate as collateral for loans tend to use more debt. Asset structure can be used to determine how much debt can be taken and this will affect the determination of the amount of capital structure. If the asset structure is higher, it means that the capital structure is also higher [20].

Sales Growth. According to Lestari [21] Sales Growth is an indicator of whether a company is progressing or not. A company in an industry that has a high growth rate must

provide large enough capital for company funding. Companies with fast growth tend to use more debt than companies with slow growth. Sales growth is one of the important factors in determining the company's capital structure because with the increase in the company's sales level, the profit and income that will be obtained by the company will also increase. Sales growth has an influence on the capital structure and as a strategy for the company because sales must be supported by assets or assets. If sales are increased, then assets must be added. By knowing sales from the previous year, companies can optimize existing resources [19]. Brigham & Houston [22] say that companies with relatively stable sales can safely take on larger amounts of debt and incur higher fixed expenses than companies with unstable sales. A company with a low growth rate does not require external costs, but a company that is growing rapidly requires capital from external sources. The faster the growth rate, the greater the need for capital, it will be safer to get a loan than companies with unstable growth.

2.3. Relationship Between Variables

Effect of Growth Opportunity on Capital Structure.

Growth Opportunity is the company's ability to develop in the future by taking advantage of investment opportunities so as to increase the value of the company. Companies with high growth rates can reduce the company's capital structure, low growth rates will increase the capital structure. Companies with large growth prospects must provide capital to cover all costs that come out of the company's operations, while companies with low growth prospects use more debt because they require large funds to develop their businesses. The research results of Data et al., [6] state that Growth Opportunity has a significant relationship to capital structure. In research conducted by Arlita and Surjandari [7] it is stated that there is no significant relationship between Growth Opportunity and capital structure.

Effect of Asset Structure on Capital Structure.

Companies whose assets are adequate to be used as loan collateral tend to use a lot of debt. Common assets that can be used by many companies can be good collateral. The large asset structure for large companies tends to have large debts because they have a number of fixed assets that can be used as collateral. In terms of trade off theory, the greater the debt owned by the company, the greater the risk that will be borne by the company. Therefore, the company will issue large assets along with large debts. The relationship between asset structure and capital structure is that companies with larger non-current assets can obtain larger funds from debt loans, because these non-current assets can be used as collateral. The higher the asset structure, the higher the capital structure.

Effect of Sales Growth on Capital Structure.

It's possible for companies with relatively high sales growth rates to be financed by using larger debt compared to companies with low sales growth, because the profits derived from increased sales are expected to be able to cover the interest costs of debt. Sales Growth partially influence capital structure. This

shows that if Sales Growth increases, the capital structure will also increase. To achieve an optimal capital structure, it must encourage companies to use a larger amount of debt to increase Sales Growth. Sales growth is a strategy for the company because sales must be supported by assets. If sales are increased, then assets must be added. The faster the growth rate, the greater the need for capital, it will be safer to get a loan than companies with unstable growth.

2.4. Research Model and Hypotheses.

Based on the description of the relationship between variables that have been described above, this research model is structured as follows:

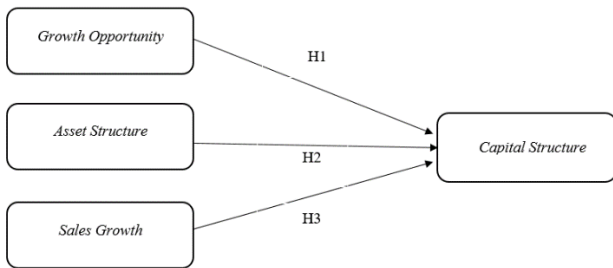


Figure 1. Research Model

Based on the formulation of the problem and the relationship between the variables described, the following hypotheses are formulated:

- H1: Growth Opportunity has a negative effect on Capital Structure in manufacturing companies on the Indonesia Stock Exchange
- H2: Asset Structure has a positive effect on Capital Structure in manufacturing companies on the Indonesia Stock Exchange
- H3: Sales Growth has a positive effect on the Capital Structure of manufacturing companies on the Indonesia Stock Exchange

3. RESEARCH METHOD

3.1. Subjects and Objects of the Research.

Manufacturing companies are the subjects in this research, while the object of the research itself includes capital structure, Growth Opportunity, Asset Structure and Sales Growth.

3.2. Research Design.

The type of design used in this research is descriptive and verification. Descriptive research is research conducted to determine the value of each variable, either one or more independent variables without making a relationship or comparison with other variables [23].

Verification research is a method that tests the truth of a hypothesis which is carried out through data collection in the field. In this case, this researcher wants to verify how the

relationship and the nature of the relationship between the variables studied [24].

This study uses a quantitative type carried out on manufacturing companies listed on the Indonesia Stock Exchange (IDX) in Manufacturing Companies 2017-2019. The research data is extracted from the company's financial statements which are downloaded from the company's official website or from the IDX's official website. www.idx.co.id. With the purposive sampling method, the data criteria have been determined beforehand and used for sampling.[25]. The criteria in this study are manufacturing companies listed on the IDX in a row in 2017-2019. The company published financial statements consecutively in 2017-2019. The company presents financial statements using rupiah currency for 2017-2019 and the company earns profits/profits in a row in 2017-2019.

3.3. Variable Operations

The independent variables used in this research are are growth opportunity, asset structure, and growth sales, while the dependent variable is capital structure.

3.3.1. Dependent Variable

The capital structure uses the DER (Debt to Equity Ratio) proxy which is calculated using the ratio of total debt to equity [18]

$$DER = \frac{Total\ debt}{equity}$$

3.3.2. Independent Variables

- a. Growth Opportunity, is the company's ability to develop in the future by taking advantage of investment opportunities so as to increase the value of the company. Companies that have a fast growth often have to increase their fixed assets which causes the company to need more funds in the future and also to maintain more profits. Growth Opportunity uses the PER (Price Earning Ratio) proxy which is calculated by the share price divided by earnings per share.[3]

$$PER = \frac{Market\ price\ per\ share}{EPS}$$

- b. **Asset Structure** is a comparison between fixed assets and total assets owned by the company. According to Tijow et al.; [26] companies with a high asset structure tend to choose to use funds from outside parties or debt to fund their capital needs. Asset structure is formulated as follows:

$$Asset\ Structure = \frac{Fixed\ Asset}{Total\ Asset}$$

- a. Sales Growth shows the percentage increase in sales for the current period compared to the previous period

which can be seen in the company's income statement. According to Harahap [11] Sales Growth is formulated as follows:

$$\text{Sales Growth} = \frac{\text{Current Sales} - \text{Last Year's Sales}}{\text{Last Year's Sales}}$$

3.4. Data Analysis

Data analysis was carried out with the support of E-Views software with the following stages:

3.4.1. Descriptive Statistical Analysis.

According to Sugiyono [25], descriptive analysis is a statistical analysis method used to describe the object of research, with data that has been collected by describing a phenomenon in accordance with the facts without intending to make conclusions that apply to the general public or general. Ghozali [28] revealed that "descriptive analysis method is a method that describes the data seen from the average value (mean), maximum value, minimum value, deviation, variance, sum, range, kurtosis, and skewness".

3.4.2. Classic assumption test.

The classical assumption test aims to ensure the requirements needed in the linear regression model so that the model is valid and has certainty as an estimator. According to Gujarati [29] if the data to be estimated using the regression model is panel data, it only requires a multicollinearity assumption test. The multicollinearity test has the aim of seeing a correlation in the correlation coefficient between independent variables or independent variables. A regression model that is said to be perfect should not experience a correlation between its independent variables. If the results of this multicollinearity test show a number less than 0.80 or 80%, this study does not experience multicollinearity problems and vice versa. If the test results show a number more than 0.80 (80%) then this study has a multicollinearity problem.

3.4.3. Panel Data Regression Estimation

Regression analysis is used to see whether there is an influence between the dependent variable and the independent variable. Based on the panel data regression model approach, there are three models, namely: Fixed effect model (FEM), common effect model (CEM), and random effect model (REM). So it is necessary to identify the best regression model by performing the following tests:

a. *Chow Test*

The Chow test is used to determine the estimation of the regression model that is more suitable between the CEM or FEM. The steps in the chow test are as follows:

The first step, determine the hypothesis

H0 : The research model uses CEM

H1 : The research model uses FEM

The second step is to compare the probability value of the cross section F with the level of significance ($\alpha = 0.05$).

If the probability value of the cross section $F \leq$ the value of α then H0 is rejected. This means that to estimate the panel data regression model, it is more appropriate to use the FEM. On the other hand, if the probability value of the cross section $F \geq$ the value of α , then H0 is accepted. This means that to estimate the panel data regression model, it is more appropriate to use the PLS model [30]

b. *Hausman Test*

Hausman test is used to estimate the regression model that is more suitable between the FEM or the random effect model. The steps in the Hausman test are as follows:

The first step, determine the hypothesis

H0 : The research model uses REM

H1 : The research model uses FEM

The second step is to compare the probability value of a random cross section with a significance level ($\alpha = 0.05$).

In the Hausman test, if the random cross section probability value ≤ 0.05 , it can be interpreted that the H0 hypothesis is rejected, then the model chosen is fixed effect. On the other hand, if the probability value of a random cross section is ≥ 0.05 , the hypothesis H0 is accepted, so the appropriate model is a random effect model [30]

c. *Lagrange Multiplier Test*

The Lagrangian Multiplier Test is used to determine a more suitable estimate between REM or CEM. The steps taken in the Lagrange Multiplier test are as follows:

The first step, determine the hypothesis

Hypothesis in the lagrange multiplier test

H0 : The research model uses the CEM

H1 : The research model uses REM

The second step is to compare the probability value of the Breusch Pagan cross section (BP) with a significance level ($\alpha = 0.05$).

If the probability value of Breusch Pagan (BP) is less than the value of (0.05), then the hypothesis H0 is rejected. This means that the right model for this research is the random effect model. Furthermore, if the result of the Breusch Pagan probability (BP) is greater than the value of (0.05) then the H0 hypothesis is accepted, meaning that the right model in this study is the common effect model [30].

3.4.4. Partial Test (t Test)

The t-test was used to determine the effect of the independent variable on the dependent variable.

Hypothesis in partial test (t test)

H0: the independent variable does not affect the dependent variable

H1: the independent variable affects the dependent variable

If the probability value of the cross section t the value of then the hypothesis H0 is rejected, meaning that the variance of the independent variable has an influence on the dependent variable. If the probability value of the cross section t the value of then the hypothesis H0 is accepted, meaning that the variance of the independent variable has no effect on the dependent variable.

3.4.5. Coefficient of Determination Test

The coefficient of determination test R² is a statistical measure used to explain the proportion of the dependent variable that can be explained by the independent variable (Widarjono, 2017). If the coefficient of determination r-square = 0 then it can be interpreted that the dependent variable cannot be explained by the independent variable. Conversely, if the coefficient of determination r-square 0 then it can be interpreted that the dependent variable can be explained by the independent variable. The value of R² is in the range of zero to 1. The value is said to be 'good' if it is above 0.5. While the value of R² is said to be 'not good' if it is below 0.5.

4. RESULT AND DISCUSSION

4.1. Statistical Descriptive

The results of the statistical description of the research data are shown in Table 1.

Table 1. Descriptive statistic

	Capital Structure	Growth Opportunity	Asset Structure	Sales Growth
Mean	0.943164	155560.5	0.406619	0.123337
Median	0.856100	15833.30	0.450411	0.066342
Maximum	3.128800	2850000.	0.729498	3.477841
Minimum	0.090600	3.053790	0.038352	-0.218853
Std. Dev.	0.657641	448897.6	0.167084	0.407164

Source : developed by the authors

In the dependent variable capital structure has a minimum value of 0.090600 which is owned by PT. Industri Jamu Dan Farmasi Sido Muncul Tbk in 2017 while the maximum value of 3.128800 owned by sat Nusapersada Tbk in 2018. The average value of the capital structure is 0.943164 and the standard value of derivatives is 0.657641.

Growth Opportunity has a minimum value of 3.053790 which is owned by Kedawung Setia Industrial Tbk in 2017 while the maximum value of 2850000 is owned by Barito Pacific Tbk in 2019. The average value of Growth Opportunity is 155560.5 and the standard value of derivatives is 448897.6.

Asset Structure has a minimum value of 0.038352 which is owned by Concretejaya Manunggal Tbk in 2019, while the

maximum value of 0.729498 is owned by PT Aneka Gas Industri Tbk in 2017. The average value of the Asset Structure is 0.406619 and the standard value of the derivative is 0.167084.

Sales Growth has a minimum value of -0.218853 which is owned by Barito Pacific Tbk in 2019, a maximum value of 3.477841 which is owned by Sat Nusapersada Tbk in 2018. The average value of Growth sales is 0.123337 and the standard value of derivatives is 0.407164.

4.2. Panel Data Regression Selection Model.

The panel data model used in the study was processed with the support of software E-views 11+

Chow test. The Chow test was conducted with the aim of determining a more suitable regression model between CEM and FEM. Chow test results are shown in the following table:

Table 2. Chow Test Result

Effects Test	Statistic	Prob.
Cross-section F	24.386742	0.0000
Cross-section Chi-square	194.939070	0.0000

Source : developed by the authors

Prob value. of the Chi-square cross-section in Table 2 is 0.0000 which is smaller than the 0.05 significance level, so FEM is more suitable.

Hausman test. The Hausman test aims to identify a more suitable model between FEM and REM. The table below is the Hausman test results.

Tabel 3. Hausman Test Result

Test Summary	Chi-Sq. Statistic	Prob.
Cross-section random	7.729962	0.0519

Source: the results of data processing by the authors

From the results of table 6 can be seen the value of Prob. of random cross section is 0.0519, this value is greater than 0.05, then Ho is accepted. Thus until this step REM is more suitable than FEM.

LM Test. This test was conducted with the aim of finding the most suitable model between CEM or REM. at a significance level 5%. Here are the results of the Langrange test:

Table 4. Langrange Test Result

Breusch-Pagan	Test Hypothesis Cross-section
	52.9576 (0.0000)

Source: the results of data processing by the authors

Based on table 4, the Breusch-Pagan cross section in the LM test above is 0.0000 which is smaller than 0.05 (0.0000<0.05). then the final decision is obtained that the most suitable approach is the random effect model.

4.3. Multiple Linear Regression Analysis

Table 5. Multiple Linear Regression Analysis

Variable	Coefficient
C	1.074469
Growth opportunity	2.43E-07
Asset Structure	-0.599689
Sales Growth	0.606499

Source: the results of data processing by the authors

Based on the multiple linear regression above, the constant value is 1.074469, which means the value of the capital structure variable is 1.074469. If the value of growth opportunity, asset structure and sales growth is zero.

The coefficient value of growth opportunity is 0.000000243 where every increase in one growth opportunity variable will increase the capital structure by 0.000000243 with the assumption that the other independent variables are constant. The coefficient value of the Asset Structure is -0.599689 where every one unit increase in the asset structure variable will increase the capital structure by -0.599689 assuming the other independent variables are constant.

The coefficient of sales growth is 0.606499, which means that every one unit increase in the sales growth variable will increase the capital structure by 0.606499 assuming the other independent variables are constant.

T test. Partial test or T test with a significance of 5% aims to determine the partial effect of the independent variables growth opportunity, asset structure and sales growth on capital structure at the significance level 5%. The following are the results of the t-test in this study:

Table 6. T-Test Result

Variable	Prob.
C	0.0000
Growth opportunity	0.0021
Asset Structure	0.2239
Sales Growth	0.0000

Source: the results of data processing by the authors

Based on the results of the T test table, the probability value of growth opportunity is 0.0021 (<0.05), meaning that growth opportunity has a significant influence on capital structure. The probability value of the asset structure is 0.2239 (>0.5), which means that the asset structure has no significant effect on the capital structure. The probability value of sales growth is 0.0000 (<0.05), which means that sales growth has a significant effect on capital structure.

R squared test. This test was conducted with a significance of 5% aimed at knowing how much the contribution of the independent variable can explain the capital structure.

Table 7. R squared test result

R-squared	0.557950
Adjusted R-squared	0.539272

Source: the results of data processing by the authors

Based on the results of the R squared test above, it can be interpreted that the variables of growth opportunity, asset structure and sales growth contribute to explaining the capital structure variable of 0.557950 or 55.80%, while the remaining 44.20% is explained by factors outside of this research variable.

4.4. Discussion

The Effect of Growth Opportunity on Capital Structure.

The first hypothesis is that growth opportunity has a significant positive effect on capital structure because based on the results of data analysis as shown in the T test table, growth opportunity has a probability value of 0.0021 <0.05 and a positive coefficient (2.43E-07), meaning that growth opportunity has a positive effect. significant positive on capital structure. The greater the growth opportunity of a company, the greater the company management's need for a good capital structure to encourage company operations. This is because a company that estimates its growth opportunities is quite high will result in the company having rapid growth opportunities. So that management requires additional capital in the form of debt. The policy to take debt in the capital structure is based on the consideration that debt is obtained relatively quickly when compared to selling shares to finance the company's operations. In addition, when the company has higher growth opportunities, it will be easier to obtain debt funds from creditors. This is because creditors tend to see the company's growth as a consideration in providing loans to debtors. This research is in line with research conducted by Data et al.; [6] which states that growth opportunity has a significant relationship to capital structure. While this research is not in line with the research of Arlita and Surjandari [7] which states that there is no significant relationship between growth opportunity and capital structure.

The effect of the asset structure on the capital structure.

The second hypothesis is that the asset structure has an insignificant positive effect on the capital structure. T-test results show that the asset structure has a probability value of 0.2239 (>0.05), which means that the asset structure does not have significant effect on the capital structure. These results indicate that the composition of fixed assets of large companies has not been able to be used to access loans and use these assets as collateral for their debts. This is because manufacturing companies generally have special types of fixed assets such as special machines that are not suitable as collateral for loans by the bank because special types of fixed assets are difficult to sell by the bank when the company cannot pay off its debt payments. This study is in line with research conducted by Sari et al.; [31] which stated that asset structure did not have a significant effect on the capital structure of manufacturing companies listed on the IDX. This research was also supported by Triyono [9] which states that the asset structure has no significant effect on the capital structure. Meanwhile, research by Buana and Khafid

[10] contradicts other researchers by stating that asset structure has a positive influence on capital structure.

The Effect of Sales Growth on the Capital Structure. The third hypothesis is that sales growth has a significant positive effect on capital structure. The results of the T test show that sales growth has a probability value of 0.0000 (<0.05) and a coefficient of 0.606499 (positive), meaning that sales growth has a significant influence in a positive direction on capital structure. Sales growth that occurs in a company will cause an increase in the company's profits. The company's profits can be used as additional internal capital by increasing retained earnings. In addition, when a company experiences an increase in sales, the company will try to further develop the company by obtaining funds from external parties for investment financing. Creditors tend to see sales growth as one of the considerations in providing loans. This supports the trade off theory which states that if the company can get greater benefits than internal funding, then the company should use external funding. This research is in line with research conducted by Susilawati [13] which states that Sales Growth has a positive and significant effect on capital structure. The results of this study are not in line with Safitri's research [14] which concludes that Sales Growth has a negative and significant effect on capital structure.

5. CONCLUSIONS AND SUGGESTIONS

5.1. Conclusion

The purpose of this study was to determine the effect of growth opportunity, asset structure and sales growth on capital structure. The population used in this study are manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2017-2019. The sampling method used is purposive sampling. This study also has several criteria, namely companies that have consecutive financial statements for three years, companies that generate profits in a row for 3 years. The results of this study indicate that growth opportunity has a significant effect on capital structure. Asset structure has no significant effect on capital structure and sales growth has a significant effect on capital structure.

The research model used is multiple linear regression analysis and random effects model. The program used to determine the data and hypotheses uses e-views 11 software. Based on the results of the T test, it can be concluded that growth opportunity has a significant positive effect on capital structure, asset structure has no significant effect on capital structure, and sales growth has a significant positive effect on capital structure.

The conclusion obtained from the R square test is that the variables of growth opportunity, asset structure and sales growth contribute to explaining the capital structure variable by 55.80%.

5.2. Suggestion

Based on the results of the research above, it is advisable for companies to pay attention to factors that play a very important role in the capital structure, because capital structure is a crucial problem for the company's financial condition. Management needs to pay attention to the variables of Growth opportunity and sales growth because these variables are proven to have a positive and significant influence on the company's capital structure so that the company can determine the optimal capital structure.

From the R-square test, the research contribution to the capital structure is only 55%. This means that there are still 45% of other variables that can explain the capital structure. Therefore, further research is recommended to complement the factors that have not been included in this study.

REFERENCES

- [1]N. T. P. Nhung, N. P. Lien, and D. T. T. Hang, "International Journal of Economics and Financial Issues Analyze the Determinants of Capital Structure for Vietnamese Real Estate Listed Companies," *International Journal of Economics and Financial Issues*, vol. 7, no. 4, pp. 270–282, 2017.
- [2]M. Masnoon and A. Saeed, "Capital Structure Determinants of KSE Listed Automobile Companies," *European Scientific Journal*, vol. 10, no. 13, 2014.
- [3]I. Fahmi, *Analisis Laporan Keuangan*. Bandung, 2017.
- [4]I Made Sudana, *Manajemen Keuangan Perusahaan*. Jakarta: Erlangga, 2015.
- [5]Kementrian Perindustrian, "Industri 4.0 Merevitalisasi Sektor Manufaktur Lebih Produktif dan Inovatif," 2017. [Online]. Available: <http://www.kemenperin.go.id/artikel/19100/Industri-4.0-Merevitalisasi-Sektor-Manufaktur-Lebih-Produktif-dan-Inovatif>. [Accessed: 17-Jul-2019].
- [6]A. Data, T. Alhabsji, S. Mangesti, and S. ragil Handayani, "Effect of Growth, Liquidity, Business Risk and Asset Usage Activity, Toward Capital Structure, Financial Performance and Corporate Value (Study at Manufacturing Companies listed in Indonesian stock exchange in 2010-2015)," *Eoropan Journal pf Bussiness and Manajement*, vol. 9, no. 2222–2905, pp. 1–13, 2017.
- [7]D. P. Arlita and D. A. Surjandari, "The Effect of Profitability , Liquidity , Asset Structure , Growth Opportunity , Institutional Ownership on Capital Structure (Case Study at Property and Real Estate Companies in Indonesia Stock Exchange Period 2013-2017)," *Scholars Bulletin*, vol. 5, no. 8, 2019.
- [8]I. P. Sari and E. Masdupi, "Profil Kebijakan Dividen Perusahaan Manufaktur dan Determinannya," *Jurnal*

- Kajian Manajemen dan Wirausaha*, vol. 01, pp. 44–49, 2019.
- [9]T. Triyono, A. Kusumastuti, and I. D. Palupi, “The Influence of Profitability, Assets Structure, Firm Size, Business Risk, Sales Growth, and Dividend Policy on Capital Structure,” *Riset Akuntansi dan Keuangan Indonesia*, vol. 4, no. 3, pp. 101–111, 2019.
- [10]F. K. Buana and M. Khafid, “The Effect of Asset Structure and Business Risk on Capital Structure with Profitability as the Moderating Variable,” *Accounting Analysis Journal*, vol. 7, no. 3, pp. 200–206, 2018.
- [11]S. S. Harahap, *Analisis Kritis atas Laporan Keuangan*. Jakarta: RajaGrafindo Persada, 2010.
- [12]M. M. Hanafi, *Manajemen Keuangan Edisi 1*. Yogyakarta: BPFE Yogyakarta, 2015.
- [13]Susilawati, “Sales Growth , Net Profit Margin , Return On Equity , dan Cost Of Fund Terhadap Struktur Modal (Studi Kasus pada Perusahaan Otomotif dan Komponen yang Ter- daftar di Bursa Efek Indonesia Tahun 2015 - 2018),” *Jurnal Keuangan dan Perbankan*, vol. 15, no. 1, pp. 1–13, 2018.
- [14]Safitri and Akhmadi, “Pengaruh Profitabilitas Dan Pertumbuhan Perusahaan Terhadap Struktur Modal Dengan Ukuran Perusahaan Sebagai Variabel Moderating,” *Mnras*, vol. IX, no. 2, pp. 265–286, 2017.
- [15]S. C. Myers and N. S. Majluf, “Corporate Financing and Investment Decisions When Firms Have Information that Investors do not have,” *Journal of Financial Economics*, vol. 13, pp. 187–221, 1984.
- [16]W. R. Scott, *Financial Accounting Theory*. Canada: Prentice Hall, 2000.
- [17]R. A. Brealey, S. C. Myers, and F. Allen, *Principles of Corporate Finance*. New York: cGraw-Hill Education, 2016.
- [18]A. Halim, *Akuntansi Sektor Publik: Akuntansi Keuangan Daerah*, 3rd ed. Salemba Empat, 2007.
- [19]A. Kesuma, “Analisis Faktor yang Mempengaruhi Struktur Modal Serta Pengaruhnya Terhadap Harga Saham Perusahaan Real Estate yang Go Public di,” *Jurnal Manajemen dan Kewirausahaan*, vol. 11, no. 1, pp. 38–45, 2009.
- [20]I. A. K. T. Andayani and K. A. Suardana, “Pengaruh Profitabilitas, Likuiditas, Pertumbuhan Penjualan, dan Struktur Aktiva Pada Struktur Modal,” *E-Jurnal Akuntansi*, vol. 24, p. 370, 2018.
- [21]M. Y. Lestari, “Pengaruh Profitabilitas, Pertumbuhan Penjualan, Ukuran Perusahaan dan Struktur Aktiva terhadap Struktur Modal pada Perusahaan Real Estate dan Property yang Terdaftar di Bursa Efek Indonesia,” Universitas Sumatera Utara, Medan, 2017.
- [22]E. F. Brigham and J. F. Houston, *Fundamentals of Financial Management, Concise Edition*. South-Western College Pub, 2016.
- [23]V. Sujarweni, *Metodologi Penelitian Bisnis dan Ekonomi*. Yogyakarta: Pustaka Baru Press, 2015.
- [24]S. Arikunto, *Prosedur Penelitian Suatu pendekatan Praktik*. Jakarta: PT.Rineka Cipta., 2010.
- [25]Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: CV. Alfabeta, 2017.
- [26]A. P. Tijow, H. Sabijono, and V. Z. Tirayoh, “Pengaruh Struktur Aktiva Dan Profitabilitas Terhadap Struktur Modal Pada Perusahaan Sektor Industri Barang Konsumsi Yang Terdaftar di Bursa Efek Indonesia,” *Jurnal Riset Going Concern*, vol. 13, no. 3, pp. 477–488, 2018.
- [27]A. E. Prasetyo and I. Januarti, “Faktor-Faktor Yang Mempengaruhi Struktur Modal Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Periode 2011-2014,” *Diponegoro Journal of Accounting*, vol. 4, no. 4, pp. 2337–3806, 2015.
- [28]I. Ghozali, *Aplikasi Analisis Multivariate dengan Program IBM SPSS 23*. Semarang: BPFE Universitas Diponegoro, 2016.
- [29]D. N. Gujarati and D. C. Porter, *Basic of Econometric*. 2009.
- [30]A. Widarjono, *Ekonometrika: Pengantar dan Aplikasinya Disertai Panduan EViews. Buku jilid 3 Edisi 4*. Yogyakarta: UPP STIM YKPN, 2017.
- [31]S. Y. Sari, D. Ramadhani, and Y. Yulia, “Pengaruh Risiko Bisnis, Struktur Aktiva, Ukuran Perusahaan, dan Pertumbuhan Penjualan Terhadap Struktur Modal,” *Jurnal EKOBISTEK*, vol. 8, no. 2, pp. 10–19, 2019.