AN ANALYSIS FACTORS OF WHICH INFLUENCE CAPITAL STRUCTURE WITH INSTITUTIONAL OWNERSHIP AS MODERATING VARIABLE IN THE MANUFACTURING COMPANIES LISTED IN THE INDONESIA STOCK EXCHANGE

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ABSTRACT: The objectives of the research were to find out and to analyze the influence of profitability, tangibility, company size, growth opportunity and market valuation on capital structure with institutional ownership as the moderating variable in the manufacturing companies listed in Indonesia Stock Exchange. This is a causal associative research. The population was 88 manufacturing companies listed in BEI (Indonesia Stock Exchange) with foreign stock ownership belonging to a domestic institution or association in the period from 2012 until 2015. Census technique was used to collect the samples. There were 352 sample data used in this research. The results of the research showed that simultaneously, all independent variables significantly influence the capital structure; however, partially, only company size and growth opportunity had significant positive influence. Meanwhile, tangibility, market valuation and profitability did not have significant influence on the capital structure. Institutional ownership could not moderate the correlation of profitability, tangibility, company size, growth opportunity and market valuation with capital structure.

Keywords: Profitability, Tangibility, Company Size, Growth Opportunity, Market Valuation, Capital Structure

1. INTRODUCTION

The development of technology and globalization lead to competitive competition in the business world, thus demanding the company competitive. Each company needs capital in the opening of business and business development. Therefore, the company must determine how much capital is needed to operate and develop the business companies can be done with internal or external funding. Internal funds are, through retained earnings and depreciation as well as external funds ie funds originating from creditors and funds from participants who take part of the company that will become its own capital. One of the key decisions faced by financial managers in relation to the company's operations is a funding decision or decision on the capital structure, ie companies need to consider and analyze the combination of economic resources to finance their investment and business needs. Capital structure is an important issue for every company, because good bad capital structure will have a direct effect on the company's financial position. Financial managers are required to create optimal capital structure by efficiently collecting funds from within and outside the company, which means that managers’ decisions are able to minimize the cost of capital borne by the company. The financial balance of the company can be achieved if the company during its function does not face gangguang-financial
disturbance, this is due to the balance between the amount of available capital and the amount of capital needed (Hestuningrum, 2015). Manufacturing companies are used as the object of this research because the company is a company with large-scale production or has a large trading volume and requires capital or large funds also to develop its products that will affect the capital structure or financing of a company. Figure 1.1 below shows the tendency of the company manufacturing listed on the Indonesia Stock Exchange has a fairly high capital structure, as seen from the Debt to Equity Ratio (DER) is quite high, on average above 0.5%, except in 2012. This means more than 50% of the company's capital comes from long-term debt. The funding decision is an important decision in determining the ability of the company to continue and develop, therefore in determining its capital structure, the company must consider the various factors that influence it before deciding the funding source to be selected.

Figure 1.1: The average Debt to Equity Ratio (DER) of manufacturing companies listed on the Indonesia Stock Exchange 2012-2015

The average capital structure of manufacturing companies listed on the Indonesian Stock Exchange during 2012 to 2015 increases and falls and fluctuates considerably. In 2012 by 22%, by 2013 by 201%, by 2014 by 83% and by 2015 by 131%. The average value of capital structure in 2013 is the highest ie 201% means the use of debt this year is very high. If the value of the capital structure is above one or more than one, then it means that the company has a larger amount of debt than the amount of capital itself. This condition is not in accordance with the theory of optimal capital structure, where the amount of debt should not be greater than the company's own capital. Meanwhile, most investors are more interested in investing their capital into investments in companies that have a certain capital structure of less than one. Because if the capital structure is greater than one means the risks borne by the investor will increase. Based on the above description, and the inconsistency of the previous research results, the researcher is interested to investigate about "Analysis Factors that affect the capital structure with institutional ownership as moderating variables in Manufacturing companies in BEI". The reason the researcher adds variables of institutional ownership, year, and company studied differently from previous researcher is based on the suggestion from previous researcher that is Vergas, Cerquiera, Brandao (2015) to add other variables related to capital structure, for years of research and company due to company development, and the problem of the company under study is different every year.

II. THE LITERATURE AND DEVELOPMENT OF HYPOTHESES

Pecking Order Theory
Pecking order theory is a theory that management systematically prioritizes investment financing by using internal funds (retained earnings) rather than using external funds, and prioritizing debt rather than equity if external funding is needed because asymmetric information will make new equity issuance costs more expensive. Pecking order theory states that more companies prioritize internal funding and if external funding is required, the company first issues the safest securities. At the moment the manager estimates the equity price is undervalued and does not want to share it to new shareholders. If the company needs additional funding, then the manager will choose to issue new debt. Conversely, if the manager expects the company to be in poor proportion, the manager estimates the price of the equity overvalued and wants to share it with the new shareholder. By knowing the policy of this manager, investors will consider issuing equity a bad news, which makes the cost of issuing equity higher. If the company can use internal funding sources or issue low-risk debt, then the cost of asymmetric information can be minimized.

**Trade-off Theory**

This theory actually refers to a thought that companies should choose how much funding comes from debt and how much of the equity will be used to balance between the cost benefits of both. An important objective of this theorem exists to explain the fact that firms are typically financed partly from debt and partly from equity.

**Agency Theory**

Agency theory provides an explanation of the relationship between the stakeholders as the principal and management as the agent. Management is the party that the contract by shareholders to work for the interests of shareholders. Therefore, the management must account for all its work to shareholders.

**Capital Structure**

Capital structure is the balance or comparison between foreign capital (long term) with own capital. Capital structure as a comparison between the company's debt and total assets, this comparison is seen by how the distribution of corporate assets to the total liabilities of the company.

**Company Profitability**

Profitability is the ability of a company to earn a certain period of time. Profitability is the ability of a company to generate profits at a certain level of sales, assets and capital stock. Profitability describes the ability of business entities to generate profits by using all the capital owned. Thus every business entity will always try to improve profitability, because the higher level of profitability of a body then the survival of the business entity will be more secure.

**Tangibility**

According to Rajan and Zingales (1995), the important variable in the determination of the company's capital structure is tangibility, because tangible assets can be used as collateral by the company, so investors do not have to be hesitant in investing funds to the company concerned. If the company is experiencing financial distress (financial difficulties) or even went bankrupt, the investor is entitled to the tangible assets of the company that has been pledged.

**Company Size**
Company size is a scale that can be classified large or small companies in various ways, including: total assets, log size, stock market value and others. The size of the company can show how much information is contained therein, while reflecting management's awareness of the importance of information both for external parties of the company and internal company. The size of a company will affect the capital structure, the greater the company will be the greater the funds needed to invest the company (Ariyanto, 2002). The larger the size of a company, then tend to use capital foreigners are also getting bigger. This is because large companies need large funds to support their operations, and one alternative fulfillment is with foreign capital if the capital itself is not sufficient.

**Growth Opportunity**

Growth opportunity is the opportunity / opportunity for the company to grow or achieve growth rate or develop the company. Companies with high growth rates need more funds in the future, especially external funds to meet their investment needs or to meet the needs of financing its growth. Companies that are likely to achieve high growth will certainly encourage companies to continue to expand their business and the required funds are certainly not small and the possibility of internal funds owned is limited so that it will affect the decision of capital structure or funding a company. Companies at high growth rates also tend to be faced with a high information gap situation between managers and investors regarding corporate investment projects resulting in equity capital stock greater than the cost of debt capital, because in the view of investors capital stock is more risk than debt so the company tend to use the debt first before using new equity shares (Seftiannie and Handayani, 2011).

**Market Valuation**

BarkerdanWurgler (2002) argues that in corporate finance, equity market timing refers to the company's actions to issue shares at high prices and buy them back at low prices. In this theory, capital structure is the cumulative result of historical market timing effort, where funding decisions made by using market timing factors will accumulate over time until it eventually generates capital structure. On the other hand, Barker and Wurgler (2002) suggest that equity market timing or market timing refers to corporate actions to issue equity when market value is high, and buy equity when market value is low.

**Institutional ownership**

Baridwan (2004) defines institutional ownership as the proportion of shares held by an institution or institution residing inside or outside the country at the end of the year. Institutional ownership is the proportion of institutional stocks located inside or outside the country at the end of the year as measured in percentage (%). Institutional ownership generally acts as a party to monitor the company. This institutional ownership is usually a share owned by other companies inside or outside the country as well as domestic and foreign government shares (Susiana and Herawati, 2007).

**CONCEPTUAL FRAMEWORK**

<table>
<thead>
<tr>
<th>Profitability (X1)</th>
<th>Tangibility (X2)</th>
<th>Company Size (X3)</th>
<th>Growth Opportunity (X4)</th>
<th>Market Valuation (X5)</th>
</tr>
</thead>
</table>

Institutional Ownership (Z) → Capital Structure (Y)
The proposed hypothesis is as follows:

1. Profitability, Tangibility, Company Size, Growth Opportunity, MarketValuation partially affect the Capital Structure
2. Profitability, Tangibility, Company Size, Growth Opportunity, MarketValuation affect simultaneously to Capital Structure
3. Institutional ownership can moderate the relationship between Profitability, tangibility, Company Size, Growth Opportunity, and Market valuation with capital structure.

III. METHODOLOGY

Objects in this study manufacturing companies listed on the Indonesia Stock Exchange with foreign ownership of shares owned by institutions or institutions located in Indonesia in 2012-2015 amounted to 88. Method sampling used is a census, where all members of the population sampled. Jadi, the total sample in this study for 4 years observation was 88 samples multiplied 4 years to 352 units of analysis. Data Collection Methods in this study using secondary data type. Secondary data in the form of historical reports such as published annual reports. This study uses pooled data, which is a combination of time series data with cross section data. Source of data obtained from information on the official website of Indonesia Stock Exchange with the address of the website www.idx.co.id.

IV. RESEARCH RESULT

Statistical Descriptive Analysis

### Classic Assumption Test

**Normality Test**

The normality test aims to test whether in the regression model the intruder or residual variable has a normal distribution. There are two ways to detect whether the residuals are normally distributed or not, that is, the Normal Probability Plot chart analysis or Kolmogorov-Smirnov (K-S) statistical test. If significant in this test is greater than $\alpha$ 0.05 means that data is normally distributed.

![Graph of Normal Probability Plot Residual](image-url)
In the picture above we can see that the points spread around the diagonal line. This indicates that the data is normally distributed (Ghozali, 2011).

<table>
<thead>
<tr>
<th>N</th>
<th>331</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Parameters(^{*,**})</td>
<td>Unstandardized Residual</td>
</tr>
<tr>
<td>Mean</td>
<td>0.0000000</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>0.70354657</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.156</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.138</td>
</tr>
</tbody>
</table>

\(^{*,**}\) Test distribution is Normal. \(^{b}\) Calculated from data.

Based on the above table, the probability value or Asymp. Sig (2-tailed) is 0.138. Since the probability value, ie 0.138 is greater than the significance level of 0.05, the assumption of normality is met.

**Multicollinearity Test**

Multikolinearitas can be seen tolerance and variance inflation (VIF). Cuttof values commonly used to indicate the presence of multicollinearity are tolerance values < 0.10 or equal to VIF value > 10.

<table>
<thead>
<tr>
<th>Model</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>.960</td>
<td>1.042</td>
</tr>
<tr>
<td>Profitabilitas (X1)</td>
<td>.980</td>
<td>1.021</td>
</tr>
<tr>
<td>Tangibility (X2)</td>
<td>.990</td>
<td>1.010</td>
</tr>
<tr>
<td>Ukuran Perusahaan (X3)</td>
<td>.990</td>
<td>1.010</td>
</tr>
<tr>
<td>Growth Opportunity (X4)</td>
<td>.990</td>
<td>1.010</td>
</tr>
<tr>
<td>Market Valuation (X5)</td>
<td>.984</td>
<td>1.016</td>
</tr>
</tbody>
</table>

Source: SPSS 18

Based on the above table, it is known that all VIF values <10, then there is no indication of multicollinearity.

**Heteroscedasticity Test**

The statistic that can be used to test the assumption of homoscedasticity is the Koenker-Bassett (KB) test. The Koenker Bassett test is the same as the Pagan Breusch test, but this test is strong for outlier or abnormal. Furthermore, to test whether the assumptions homoskedastisitas fulfilled or not, then by looking at the significance of the coefficient \( \alpha_2 \). If the value is Sig. (probability) of the coefficient \( \alpha_2 \) > 0.05 (significance level), then the assumption of homoscedasticity is met (Gujarati, 2004). data. If the test is statistically significant, it indicates that the relationship between some or all independent variables and the dependent variable is not stationary. One of the independent variables may be a strong predictor in some areas but weak in other areas.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>4.80</td>
<td>0.047</td>
<td>10.130</td>
<td>0.000</td>
</tr>
<tr>
<td>kuadrat_prediksi</td>
<td>6.85</td>
<td>1.152</td>
<td>0.033</td>
<td>0.594</td>
</tr>
</tbody>
</table>

\(^a\) Dependent Variable: kuadrat_residual
Based on the above table, it is known that the Sig value of the quadratic prediction variable is 0.553 > 0.05, it is concluded that there is no heteroscedasticity.

Source: SPSS 18

From the picture above can be seen that the points spread randomly above and below the number 0 on the Y axis, and not form a particular pattern or irregular. This means heteroscedasticity in the regression model, so this model is feasible to use.

**Autocorrelation Test**

**Autocorrelation test results**

<table>
<thead>
<tr>
<th>Model</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.908</td>
</tr>
</tbody>
</table>

Based on the above table, the value of Durbin-Watson statistics is 1.908 since the Durbin-Watson statistic value lies between 1 and 3, i.e 1 < 1.908 < 3, then the non-autocorrelation assumption is met. In other words, there are no symptoms of high autocorrelation in residuals. Autocorrelation tests can also be performed using the Runs test. The following results are presented based on the Runs test in the table below:

<table>
<thead>
<tr>
<th>Rtns Test</th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Value</td>
<td>0.9228</td>
</tr>
<tr>
<td>Cases &lt; Test Value</td>
<td>165</td>
</tr>
<tr>
<td>Cases &gt;= Test Value</td>
<td>166</td>
</tr>
<tr>
<td>Total Cases</td>
<td>331</td>
</tr>
<tr>
<td>Number of Runs</td>
<td>136</td>
</tr>
<tr>
<td>Z</td>
<td>1.156</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.248</td>
</tr>
</tbody>
</table>

Based on the above table Runs test results, known probability value or Asymp. Sig. (2-tailed) is 0.248 > 0.05, then there is no autocorrelation

**Hypothesis Test I**

Multiple regression model between independent variable (X) to dependent variable (Y) can be formulated in the form of equation as follows:

\[ Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \]

Source: SPSS 18

Based on the above table, the influence of each independent variable on capital structure can be interpreted as follows:

Where: The value of the regression coefficient of profitability (ROA proxy) is -0.016, which is negative to the capital structure. The value of Sig 0.582 > 0.05 and
t value arithmetic -0.550 is in area H_0 < t table that is 1.967 hence profitability have no significant effect to capital structure (H1.1 unacceptable). Regression coefficient value from tangibility is 0.026, that is value positive, to the capital structure. The value of Sig 0.431 > 0.05 and t value 0.789 are in area H_0 < t table that is 1.967 hence tangibility does not have significant effect to capital structure (H1.2 unacceptable). The regression coefficient value of firm size is 0.735, that is positive value to capital structure. The value of Sig 0.021 < 0.05 and the value of t value 2.321 are in H_1 > t table area is 1.967 hence firm size have significant effect to capital structure (H1.3 accepted). The regression coefficient value from growth opportunity is 0.070, that is positive value to structure capital. The value of Sig 0.040 < 0.05 and t value 2.066 is in H_1 > t table area is 1.967 hence growth opportunity have significant effect to capital structure (H1.4 accepted). The regression coefficient value from market valuation is 0.001, which is positive to capital structure. Known the value of Sig 0.984 > 0.05 and the value of t arithmetic 0.020 is in the area H_0 < t table that is 1.967 then market valuation did not significant effect on capital structure (H1.5 is not acceptable).

**Hypothesis Test II**

**Hypothesis Testing Result II**

From the results shown by the above table, then obtained a significance value of 0.000 which is a result that is smaller than 0.05 (0.047 < 0.05). F count > F table (2.273 > 2.241), so that simultaneously independent variables significantly influence dependent variable. So profitability, tangibility, firm size, growth opportunity, and market valuation simultaneously have a significant effect on capital structure (H2 accepted).

**Hypothesis Test III**

Test results Institutional ownership as a moderating variable is generated as follows:

\[ Z = 4.593 - 0.014X_1 - 0.023X_2 - 0.042X_3 - 0.003X_4 - 0.052X_5 \ldots \ldots (1) \]

\[ |e| = 0.223 + 0.011Y \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots (2) \]
The regression coefficient of capital structure, in the table above is 0.011 (positive value), and not significant (Sig. 0.468> 0.05). This means that institutional ownership can not moderate the relationship between profitability, tangibility, firm size, growth opportunity, market valuation with capital structure (H3 is not acceptable).

**Determination Coefficient Analysis**

The coefficient of determination ($R^2$) is a value (value of proportion) which measures how much is the ability of the independent variables used in the regression equation, in explaining the variation of the dependent variable.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.184*</td>
<td>.034</td>
<td>.019</td>
<td>.708978</td>
<td>1.908</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Market Valuation (X5), Tangibility (X2), Growth Opportunity (X4), Ukuran Perusahaan (X3), Profitabilitas (X1)
b. Dependent Variable: Struktur Modal (Y)

Based on Table it is known that the value of coefficient of determination (Adjusted Square) is 0.019 or 1.9% and that value can be interpreted as profitability, tangibility, firm size, growth opportunity, and market valuation variables can explain or explain variation capital structure of 1.9%, the rest of 98.1% explained by variables or other factors not included in this research model.

**V. CONCLUSIONS AND SUGGESTIONS**

**Conclusion**

Based on the results of tests performed obtained the following conclusions: Partially, the variable size of the company and Growth Opportunity have a significant positive effect on capital structure. Tangibility, market valuation and profitability (ROA proxy) have no significant effect to capital structure on manufacturing companies listed on Indonesia Stock Exchange. Simultaneously, Profitability, Tangibility, Company Size, Growth Opportunity and Market Valuation have significant effect to capital structure at manufacturing company in Indonesia Stock Exchange. Institutional ownership can not moderate the relationship between profitability, tangibility, firm size, growth opportunity, and market valuation with capital structure. at a manufacturing company listed on the BEI.

**Limitations**

Based on the results of the tests conducted obtained the following limitations: The effect of independent variables in this study has a value Adjusted Squaresangat small (1.9%), this value indicates that there are many other independent variables that can affect the capital structure of listed manufacturing companies on BEI. This research can not prove partially profitability, tangibility, and market valuation variables significantly influence capital structure at manufacturing companies listed on BEI. In this study Institutional ownership can not be proved as moderating variable.

**Suggestion**
Based on the conclusions and limitations of this study, researchers provide suggestions for further research as follows: Based on the value of Adjusted R Squares very small in this study it is advisable for further research in order to add / replace with other independent variables, because there are many other factors which can affect capital structure such as sales growth, and liquidity. Future research may use other proxies to measure profitability variables such as ROI and ROE. Can replace institutional ownership variables with other variables such as managerial ownership as moderating variables.

REFERENCES


