The Role of Growth Opportunity and Internal Factor Toward Capital Structure of Manufacturing Company Member in Jakarta Islamic Index

Wafa Anggraeny1 *, Robiyanto2

12:Fakultas Ekonomika dan Bisnis Universitas Kristen Satya Wacana

ARTICLE INFO
Article history:
Received 18 May 2020
Received in revised form 5 June 2020
Accepted 18 July 2020
Available online 29 August 2020

Keywords:
Capital Structure, Profitability, Asset Structure, Company Size, Growth Opportunity

ABSTRACT

The study aimed to analyze the factors that determined the capital structure of the manufacturing companies listed in the Jakarta Islamic Index (JII) from the period of 2015 to 2018. The independent variables in this study were profitability, asset structure, company size, and growth opportunity. The samples were taken by using the purposive sampling method and obtained 10 companies as research samples. Data analysis techniques use a regression analysis of data panel. The results of the regression panel in this study showed that profitability had a significant positive effect on capital structure. The asset structure, firm size and growth opportunity variables do not significantly influence the company's capital structure. This research implies that companies need to pay attention to profitability variable in determining capital structure.

* Corresponding author.
E-mail addresses: 212017213@student.uksw.edu (Wafa Anggraeny)
1. Introduction

Nowadays, the high level of business competition is caused by the establishment and development of companies in Indonesia. It can help to increase Indonesia’s economic growth in achieving stability. With a stable situation, the company can survive in competition and always develop. Business competition is related to the company’s ability to maximize the company’s operations in earning profits (Maulina et al., 2016). One of the important decisions relating to operation activities faced by financial managers is the funding decision. The company is funded with debt and equity (Nuswandari, 2013). A good funding decision of a company can be seen from the capital structure, namely, financial decisions relating to the composition of debt, both short-term debt and long-term debt, common stock, and preferred stock used by the company (Margaretha and Ramadhan, 2010). The role of managers in determining the optimal capital structure is the right funding decision. The optimal capital structure is the condition of a company to use a combination of debt and capital ideally so that the company is able to minimize the cost of capital that must be borne by the company (Firmanti, 2011).

The measurement of the company’s capital structure can be proxied by DER (Debt Equity Ratio) which is the ratio of debt to capital. Debt to Asset Ratio is a debt ratio that is used to measure the ratio between total debts and total assets (Maulita, 2018). Schmukler and Vesperoni (2006) explain that the higher value of DER so the risk faced by the company is also high. It is because of the greater funding from debt. Safavian and Sharma (2007) state that certain levels of DER that are less than one tend to be more attractive in the eyes of investors because a DER value more than one indicates that the company has a high risk.

In determining the capital structure, several factors influence managers in making decision. Some factors that are suspected to influence capital structure include profitability. The company with high profitability will reduce debt because the company relies on internal sources and uses relatively low debt by allocating most of its profits to retained earning (Nuswandari, 2013). In their study, Febriyani and Srimindarti (2010); Prabansari and Kusuma (2005) state that there is an effect of profitability on capital structure. The companies that obtain high profitability will get large internal funds so that the level of debt use is getting lower. On the other hand, a study conducted by Sutapa and Setyawan (2008); Joni and Lina (2010); Sari and Dewata (2016) show that profitability has a significant effect on capital structure with a negative relationship that profitability has a significant negative effect on capital structure.

Another factor that is tended to affect the capital structure is the asset structure. The companies tend to use quite a lot of debt if their assets are sufficient to be used as collateral for loans due to the comparison of small companies in which large-scale companies will be easier to get access to the source of funds (Joni and Lina, 2010). However, in a study conducted by Niztiar and Muharam (2013) state that asset structure does not have a significant effect on capital structure.

The company size becomes one of the factors influencing the capital structure. The size of the company describes a company from the average level of sales, average total assets, total sales, or total assets. Large companies need large funds, which generally have a high level of sales and profits as well. The large funding needs can be met by using internal sources. Some studies conducted by Febriyani and Srimindarti, (2010); Prabansari and Kusuma, (2005); Seftianne and Handayani, (2011) find that capital structure is influenced by company size. However, a study conducted by Firmanti (2011); Joni and Lina (2010) state that there is no influence between company size on capital structure.

The last factor influencing the capital structure is growth opportunity. Companies with high growth opportunity will face high information gaps between managers and outside investors about the quality of the company’s investment projects. The information gap causes the cost of equity capital is greater than debt because from the perspective of investors capital is riskier than debt, so investors will look negatively about the company’s prospects in the future. As a result, companies tend to use debt before the capital (Setiawan, 2006). A study conducted by Febriyani and Srimindarti, (2010); Seftianne and Handayani, (2011) find that capital structure can be influenced by growth opportunity.

There are two theories about capital structure. The first is pecking order theory which assumes that the company’s goal is to maximize shareholder welfare. This theory was first introduced by Donaldson in 1961, while the naming of the pecking order theory was done by Myers in 1984 (Prabansari and Kusuma, 2005). Mayangsari (2001) explains that pecking order theory tends to choose funding in the order of risk, namely, retained earnings, debt, and equity issuance. To fulfill the capital structure, the obtained source of funds from retained earnings is internal funding which is more likely to be chosen by companies than external funding sources in the form of debt. If the source of funds is not able to meet the needs of the company, it is recommended the external funding in the form of debt as the first source, then it is continued by the issuance of new shares (Meutia, 2016).
The next theory related to capital structure is trade off theory which is a capital structure model with the assumption balance between the benefits of using debt with financial distress costs (financial difficulties) and agency costs as an optimal capital structure of the company. Trade off theory is a model based on trade off (exchange) between the advantages and disadvantages of using debt (Nuswandari, 2013). Trade off theory on capital structure can explain the differences in targeted capital structure among companies. This theory states that greater debt implies a level of profitability because it is less risky for lenders. In addition, a company’s ability in paying interest shows a greater debt capacity. Therefore, profitability and the ability in paying interest have a positive influence on capital structure (Firnanti, 2011).

The previous study conducted by Muhamad Umar Mai (2019) used all Sharia Manufacturing Companies listed on the Indonesia Stock Exchange as research objects which were different from the present choosing Sharia Manufacturing Companies on the Jakarta Islamic Index (JII) stock index. The selection of JII was due JII is an Islamic stock index which was first launched in the Indonesian capital market on the July 3rd, 2000 which consisted of 30 shares including sharia securities, or a stock index based on the most liquid Islamic sharia listed on the ISE (Indonesia Stock Exchange, 2018). Companies in the JII index are known to have a high enough capital ratio to have a large debt on the capital ratio (Sari and Dewata, 2016). In the JII index, a review was done every six months by determining the initial index components in January and July each year. Meanwhile, based on available public data, changes in the type of issuer business would be monitored continuously. Companies whose shares are included in JII have a capital structure with special characteristics and it is different from other companies (Indriani and Widyarti, 2013). Therefore, it is important to conduct a study on internal factors and growth opportunities in determining capital structure of companies that are included in the Jakarta Islamic Index calculation.

Penentuan struktur modal dalam satu industri yang sama dapat berbeda bahkan sangat bervariasi sesuai dengan jenis dan tujuan perusahaan (Brigham dan Houston, 2006). Perusahaan yang comply dengan prinsip syariah struktur modal ditentukan oleh perbandingan total hutang yang berbasis bunga dengan total aset tidak lebih dari 45%, total pendapatan bunga dan pendapatan tidak halal dibandingkan total pendapatan usaha dan pendapatan lainnya tidak lebih dari 10% (Muhamad Umar Mai, 2019). Perusahaan yang comply dengan prinsip syariah adalah perusahaan dimana aktivitas bisnis perusahaan tidak diperbolehkan melanggar Syariah Islam.

Penelitian ini bertujuan untuk menganalisis profitabilitas, struktur aktiva, ukuran perusahaan, dan growth opportunity dalam perannya menentukan besarnya struktur modal perusahaan dan diharapkan dapat memberikan informasi baru bagi ilmu pengetahuan dan informasi untuk investor dalam pengambilan keputusan investasi, juga diharapkan dapat memberikan perusahaan alternatif untuk mencapai struktur modal yang optimal.

The determination of capital structure in the same industry can be different or even very varied based on the type and purpose of the company (Brigham and Houston, 2006). Companies that comply with Islamic principles of capital structure are determined by the ratio of total interest-based debt with total assets (no more than 45%), total interest income and non-halal income compared to total operating income and other incomes (no more than 10%) (Muhamad Umar Mai, 2019). Companies with sharia principles are company business activities that are not permitted to violate Islamic Sharia.

This study aimed at analyzing the profitability, asset structure, company size, and growth opportunity in its role to determine the size of the company’s capital structure and it was expected to provide new information for science and investors in making investment decisions, as well as provide alternative companies to achieve the structure optimal capital.

2. Methods

This study used quantitative data from secondary source which were obtained from published and trusted data. The obtained data were in the form of annual financial reports from each company listed on the Jakarta Islamic Index (JII) for the period 2014 to 2018. Financial reports were obtained from the Indonesia Stock Exchange website (idx.co.id). In this study, the population was companies in the JII stock index. Based on data from the Jakarta Islamic Index (JII), there were 30 sharia shares, but not all 30 company shares were used as research samples. Purposive sampling technique was used to determine the sample of the study based on certain criteria. The process of determining the sample in this study can be seen in Table 1.
**Table 1. Purposive Sampling Technique**

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The companies listed on the Jakarta Islamic Index</td>
<td>30</td>
</tr>
<tr>
<td>The manufacturing companies listed on Jakarta Islamic Index</td>
<td>11</td>
</tr>
<tr>
<td>The companies that consistently report the annual reports in 2015 – 2018</td>
<td>10</td>
</tr>
<tr>
<td>The total sample of the study</td>
<td>10</td>
</tr>
<tr>
<td>Year of observation</td>
<td>4</td>
</tr>
<tr>
<td>Number of observation</td>
<td>40</td>
</tr>
</tbody>
</table>

Based on the criteria of the purposive sampling technique above, 10 manufacturing companies were selected as the sample of the study listed on the Jakarta Islamic Index. The list of companies as the sample of this study can be seen in Table 2.

**Table 2. The List of Company Samples**

<table>
<thead>
<tr>
<th>Number</th>
<th>Code</th>
<th>Name of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ASII</td>
<td>Astra Internasional Tbk.</td>
</tr>
<tr>
<td>2</td>
<td>BRPT</td>
<td>Barito Pacific Tbk.</td>
</tr>
<tr>
<td>3</td>
<td>CPIN</td>
<td>Charoen Pokphand Indonesia Tbk.</td>
</tr>
<tr>
<td>4</td>
<td>ICBP</td>
<td>Indofood CBP Sukses Makmur Tbk.</td>
</tr>
<tr>
<td>5</td>
<td>INDF</td>
<td>Indofood Sukses Makmur Tbk.</td>
</tr>
<tr>
<td>6</td>
<td>INTP</td>
<td>Indocement Tunggal Prakarsa Tbk.</td>
</tr>
<tr>
<td>7</td>
<td>JPFA</td>
<td>Japfa Comfeed Indonesia Tbk. Baru</td>
</tr>
<tr>
<td>8</td>
<td>KLBF</td>
<td>Kalbe Farma Tbk.</td>
</tr>
<tr>
<td>9</td>
<td>SMGR</td>
<td>Semen Indonesia (Persero) Tbk.</td>
</tr>
<tr>
<td>10</td>
<td>UNVR</td>
<td>Unilever Indonesia Tbk.</td>
</tr>
</tbody>
</table>

Source: idx.co.id

In this study, the dependent variable was the capital structure that was proxied by the DER ratio. While the independent variables were profitability, asset structure, company size, and growth opportunity. The measurement of the dependent and independent variables can be seen in Table 3 as follows.

**Table 3. The Definition of Operational Variable**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Conceptual Definition</th>
<th>Measurement</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Structure</td>
<td>The combination of debt and capital in financial report.</td>
<td>Total Liability</td>
<td>DER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Equity</td>
<td></td>
</tr>
<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profitability</td>
<td>The ability of the company to earn profits from its business activities.</td>
<td>Net Profits</td>
<td>ROA</td>
</tr>
<tr>
<td>Asset Structure</td>
<td>The ratio between fixed assets and assets owned by the company.</td>
<td>Total Asset</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td>The size of company by considering the value from total of asset, equity and sales by company.</td>
<td>Fixed assets / Total Assets</td>
<td></td>
</tr>
<tr>
<td>Company Size</td>
<td>An opportunity for company to grow in the future.</td>
<td>log Total Asset</td>
<td>SIZE</td>
</tr>
<tr>
<td>Growth Opportunity</td>
<td></td>
<td>Total Asset – Total Asset_ (t-1) / Total Asset_ (t-1)</td>
<td>GRWTH</td>
</tr>
</tbody>
</table>
In this study, the data analysis technique was panel data regression in which it combined time series and cross section data. The step of panel regression testing was by determining the appropriate estimation model, in the form of a common effect model, fixed effect model, and random effect model. Common effect model combines time series data and cross sections without paying attention to the time or individual, so it is assumed that the behavior of company data is the same in various time periods. The Ordinary Least Square (OLS) approach was applied in this study. The fixed effect model assumes that the regression coefficients remain between companies and between times, but the intercepts differ between companies and between times. The Least Square Dummy Variable (LSDV) approach was used to capture these intercept differences. Random effect mode by adding a variable error (error terms) that might appear in the relationship between time and between companies. The approach was (Error Component Model) or techniques (Generalized Least Square). Then, it was followed by the classic assumption test in the form of normality, multicollinearity, and heteroscedasticity. Data processing in this study applied Eviews 10 software.

The panel regression model in this study was:

\[ Y_{it} = \alpha + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \epsilon_{it} \]

Note:
- \(Y_{it}\) = Capital structure of company \(i\) year \(t\)
- \(\alpha\) = Constant
- \(\beta_1, \beta_2, \beta_3, \beta_4\) = Regression coefficient
- \(X_{1it}\) = Profitability of company \(i\) year \(t\)
- \(X_{2it}\) = Structure of company asset \(i\) year \(t\)
- \(X_{3it}\) = Size of company \(i\) year \(t\)
- \(X_{4it}\) = Growth Opportunity of company \(i\) year \(t\)
- \(\epsilon_{it}\) = error term of company \(i\) year \(t\)

3. Result and Discussion

The results in Table 4 showed that the average of capital structure (DER) was 0.975. The minimum value of DER around 0.15 was owned by INTP in 2016. The maximum value owned by ICBP in 2018 was 5.13. A high DER value indicated that the company's debt was greater than the company's capital. Profitability (ROA) had an average of 0.12 with a minimum value of 0.002 which was in the BRPT in 2015.

Table 4. Descriptive Statistic

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DER</td>
<td>40</td>
<td>5.130</td>
<td>0.150</td>
<td>0.975</td>
<td>0.917</td>
</tr>
<tr>
<td>ROA</td>
<td>40</td>
<td>0.470</td>
<td>0.002</td>
<td>0.120</td>
<td>0.103</td>
</tr>
<tr>
<td>SA</td>
<td>40</td>
<td>0.700</td>
<td>0.160</td>
<td>0.417</td>
<td>0.154</td>
</tr>
<tr>
<td>SIZE</td>
<td>40</td>
<td>8.850</td>
<td>7.140</td>
<td>7.590</td>
<td>0.397</td>
</tr>
<tr>
<td>GRWTH</td>
<td>40</td>
<td>1.050</td>
<td>-0.110</td>
<td>1.109</td>
<td>1.173</td>
</tr>
</tbody>
</table>

Meanwhile, the maximum value at the UNVR in 2018 was 0.47. The higher profitability means that the lower the use of debt. The average asset structure (AS) was 0.417. The minimum value was 0.16 for ASII in 2017, while the maximum value was 0.7 for SMGR in 2016. The average company size (SIZE) was 0.397 with a minimum value of 7.14 by KLBF in 2015 and a maximum value of 8.85 by ASII in 2018. Growth Opportunity (GRWTH) had an average of 1.109 with a minimum value of -0.110 by INDF in 2016 and a maximum value of 1.05 by BRPT in 2018.

A. Hypothesis Testing

The result of regression analysis can be seen in Table 5, the equation as follows:

\[ Y_{it} = -0.919 + 3.971X_{1it} - 0.407X_{2it} + 0.196X_{3it} + 0.922X_{4it} + \epsilon_{it} \]
Note:

\[ Y_{it} = \text{Capital structure of company i year t} \]
\[ X_{1it} = \text{Profitability of company i year t} \]
\[ X_{2it} = \text{Structure of company asset i year t} \]
\[ X_{3it} = \text{Size of company i year t} \]
\[ X_{4it} = \text{Growth Opportunity of company i year t} \]
\[ \varepsilon_{it} = \text{error term of company i year t} \]

Tabel 5. The Result of Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.919</td>
<td>3.449993</td>
<td>-0.266245</td>
<td>0.7916</td>
</tr>
<tr>
<td>ROA (X_1)</td>
<td>3.971</td>
<td>1.490589</td>
<td>2.664343</td>
<td>0.0116*</td>
</tr>
<tr>
<td>SA (X_2)</td>
<td>-0.407</td>
<td>1.006786</td>
<td>-0.404526</td>
<td>0.6883</td>
</tr>
<tr>
<td>SIZE (X_3)</td>
<td>0.196</td>
<td>0.422705</td>
<td>0.462859</td>
<td>0.6463</td>
</tr>
<tr>
<td>GRWTH (X_4)</td>
<td>0.922</td>
<td>0.820356</td>
<td>1.123524</td>
<td>0.2689</td>
</tr>
</tbody>
</table>

Note:

* significant at the 5% significance level

The value of the constant was -0.919 which means that if profitability, asset structure, company size, and growth opportunity are 0, then the capital structure is -0.919. The regression coefficient for profitability variable was 3.971 which means that every time there is an increase in profitability it will cause an increase in capital structure of 3.971. With a significant level of 0.0116 less than 5% (sig < α), the effect of profitability on capital structure is significant, but the effect of profitability on capital structure is positive rather than negative as expected. Based on this, H0 is accepted and H1 is rejected, which means profitability (ROA) has no negative effect on capital structure. Thus, the first hypothesis "Profitability has a positive effect on capital structure" is untested.

The regression coefficient for the asset structure was -0.407 which means that any decrease in the asset structure will cause a decrease in capital structure of 0.407. With a significant level of 0.6883 over 5% (sig > α), H0 is accepted and H2 is rejected, which means the asset structure has a negative effect on the capital structure. Thus, the second hypothesis "Asset Structure has a positive effect on capital structure" is untested.

The regression coefficient for company size was 0.196 which means that any increase in company size will result in an increase in capital structure of 0.196. With a significant level of 0.6463 more than 5% (sig > α), H0 is accepted and H3 is rejected, which means that company size has a positive effect on capital structure. Thus, the third hypothesis "Company Size has a negative effect on capital structure" is untested.

The regression coefficient for growth opportunity was 0.922, which means that any increase in growth opportunity will result in an increase in capital structure of 0.922. With a significant level of 0.2689 more than 5% (sig > α), H0 is accepted and H4 is rejected, which means growth opportunity has a negative effect on capital structure. Thus, the fourth hypothesis "Growth opportunity has a positive effect on capital structure" is untested.

B. Classic Assumption Test

Normality test is conducted to determine the dependent and independent variables are normally distributed in the regression model. Normality is seen from the probability value (significance) greater than 0.05 (5%), then the data are normally distributed. Based on the normality test, the probability value is 0.0000, which means it is smaller than 0.05. It shows that the data is not normally distributed.

Multicollinearity test is used to test whether there is correlation between the dependent and independent variables. The problem of multicollinearity can be seen from the correlation matrix of the independent variables, if the correlation coefficient is more than 10 then multicollinearity occurs. In this study, the VIF value on the ROA variable was 1.206, SA was 1.231, SIZE was 1.449, and GRWTH was 1.039, which showed that there were no multicollinearity symptoms between the independent variables in the analysis model because all independent variables had VIF values below 10.

Heteroscedasticity test is used to determine whether or not in the regression model there are differences in the variance of observations between residuals with each other. Heteroscedasticity test is conducted by the White test to regress between absolute residual regressions toward independent variable. If the probability value (significance) is more than 0.05 (5%), it can be interpreted to pass the...
heteroscedasticity test or it can be said that the study data does not occur heteroscedasticity. Heteroscedasticity statistical test results generated a probability value of 0.8463, which means more than 0.05 (5%) so that the regression model does not contain heteroscedasticity.

C. The Effect of Profitability (ROA) on Capital Structure

From the results of research testing, it showed that the result of profitability (ROA) had a significant positive effect on capital structure (DER). This positive effect is quite astonishing because usually companies with high profitability tend to have adequate internal funds so that companies use capital with retained earnings or internal funding so that external funding in the form of debt is used in relatively smaller amounts inline with pecking order theory. It can happen because the sample companies tend to increase their debts if they have good profitability to supports their ability in paying the debt.

The results of this study are not inline with a study conducted by Kesuma (2009), Niztiar & Muhamad (2013), Santika & Sudiyatno (2011), but it is inline with a study conducted by Febriyani and Srimindarti (2010), Prabansari and Kusuma (2005) which state that profitability has a positive significant effect on capital structure.

D. The Effect of Asset Structure (SA) on Capital Structure

From the test results of the study, it showed that the asset structure (SA) had no significant effect on the capital structure (DER). It shows that the asset composition will not make the company change its capital structure. It is inline with a study conducted by Seftianne & Handayani (2011), Niztiar & Muharam (2013) but it is not inline with a study conducted by (Joni and Lina, 2010), Santika and Sudiyatno (2011) which state that the structure of assets has a positive effect on capital structure.

E. The Effect of Company Size on Capital Structure

From the test results of the study, it showed that the size of the company (SIZE) had no significant effect on capital structure (DER). This finding does not support the statement that companies with a larger size are usually easier to obtain debt compared to smaller companies because larger companies are considered to have good loan repayment capabilities. It can occur because the company is wiser in using the source of funds from debt, and does not necessarily use the ability of debt to obtain debt. These results are inline with a study conducted by Maulina et al (2016), Meutia (2016), Prabansari & Kusuma (2005), Seftianne & Handayani (2011) but it is not inline with a study by Firnanti (2011), Joni and Lina (2010) which state that the size the company has a negative effect on capital structure.

F. The Effect of Growth Opportunity (GRWTH) on Capital Structure

From the results of research testing, it showed that the growth opportunity (GRWTH) did not significantly influence the capital structure (DER). These results are not inline with a study conducted by Febriyani & Srimindarti (2010), Mai (2006), Seftianne and Handayani, 2011) which state that growth opportunity has a positive effect on capital structure. It can occur because the companies do not necessarily use debt to pay their expansion when there are growth opportunities, but they will also consider other funding alternatives such as stock issuance.

4. Conclusion

The results of the study show that not all observed variables influence the capital structure of manufacturing companies included in the JII calculation. From four factors used in this study, namely, profitability, asset structure, company size, and growth opportunity, it is proven that only profitability has a significant effect with a positive effect, while other variables do not significantly influence the capital structure. This study has several limitations, namely, the research data is not normally distributed. This study is also limited only to manufacturing companies listed on the JII index in a period of four years, namely, 2015 - 2018 so that it does not adequately represent the condition of companies that comply with sharia principles as a whole. Based on the results of the study, it is expected that further research can be done to examine more samples from Indonesian Sharia Stock Index (ISSI) which has more members than JII and apply capable methods to overcome data abnormalities.
Reference


