FIRM VALUE IN THE INDONESIAN MINING COMPANY

Fitria Mayangsari1, Suhadak2, M. Dzulkirom3
Department of Business Administration, Universitas Brawijaya, Malang, Indonesia
Email: f3yamayangsari@gmail.com1, Suhadak@ub.ac.id2, mdkrom_fia@ub.ac.id3

ABSTRACT

Mining companies listed on the Indonesia Stock Exchange in 2013-2017 are the objects of this study. The value of the company is influenced by capital structure and profitability and the size of the company is the destination to be known. Exploratory is the type in this study by looking at secondary data published by the official website of each mining company. Purposive sampling becomes a data collection technique with a total of 21 mining companies. The results of the study using PLS 3.0 analysis show that firm value is positively influenced by profitability and company size. Capital structure is positively influenced by capital size. Other results from this study indicate that capital structure is not significantly affected by profitability. The value of the company is also not negatively affected by the capital structure.

Keywords: Profitability, Firm Size, Capital Structure, Firm Value, Mining Companies

Kata Kunci: Profitabilitas, Ukuran Perusahaan, Struktur Modal, Nilai Perusahaan, Perusahaan Tambang


Kata Kunci: Profitabilitas, Ukuran Perusahaan, Struktur Modal, Nilai Perusahaan, Perusahaan Tambang
INTRODUCTION

Competition in today’s business world is increasingly tight. The development of ventures has lead many firms or companies to raise more. The emergence of new companies produces the needs for continuous innovation in order to win the competition. The innovations cannot certainly be separated from the availability of supporting funds.

Companies in their operations have a need for availability of funds. Without having sufficient funds, the company will be incapable in performing its operational activities. The availability of company funds is closely related to its capital. The capital used for financing is expected to generate maximum profit. The profits will be useful for company’s further development, as well as the improvement in owner’s prosperity.

The capital market is one alternative for companies to get additional capital. According to Law Number 8 of 1995 dated November 10, 1995 on Capital Market, it is stated that capital market means all activities related to public offering and security trading, public companies related to security issuance, also institutions and professions related to security. The existence of the capital market also could encourage the creation of efficient fund allocations, and this condition can occur because those who have excess funds (investors) can choose investment alternatives that provide optimal returns. This is a motivation for investors to invest their funds in the capital market. Before investing their funds, investors should be able to measure and consider company's capabilities and prospects in the future. This capability is reflected in the financial statements issued by the company. Moreover, the prospective investors should pay more attention to the company’s profit rate, either its current profits or profit rate possibility in the future because it will affect the return.

According to Analisa (2011), firm value can also be affected by profitability size generated by the company itself. Profitability is the ability of a company to generate profits for a certain period.

Return on Equity (ROE) is a tool to measure profitability in this study. ROE shows how much the company's ability to generate net income for return of equity towards shareholders. A study conducted by Rahmawati (2015), shows profitability variables measured with ROE.

Meanwhile, a study conducted by Kusumastuti (2015) regarding profitability measured with ROE shows that ROE does not significantly affect firm's value. Firm size is considered to be able to affect the firm’s value because the larger a firm size or scale, the easier for it to obtain both internal and external funding sources. A study conducted by Mas'ud (2008) find that firm size is said to be positively and significantly related to firm value.

Capital structure is also an important element for the company to operate, because it is impossible for the company to run without capital. According to Brigham (1990), capitals can be classified into two types, debt and equity. The use of capital in a company can be seen in its capital structure.

According to Sartono (2012), capital structure is the permanent balance of short-term debt, long-term debt, preferred stock, and ordinary stock.

Company value and capital structure are issues that must be considered by investors. According to Syamsudin (2011), an optimal capital structure is the structure of capital that can minimize overall capital costs or average capital costs to maximize firm's value. Higher firm value will increase owner's prosperity.

A type of stock with attractive offers is from the mining sector. Mining stocks become attractive because the prospects of mining companies are quite convincing. Indonesian mining sectors tend to develop every year. The main cause is the high demands of mining products, along with the increasing population in Indonesia. As quoted from kontan.co.id accessed on March 12, 2018, Nico Omer, Vice President of Research and Analysis of Valbury Sekuritas Indonesia stated “Commodities are always needed, especially with the large number of infrastructure projects which being worked on in Asi”.
Based on the explanation can be concluded that stock price in mining sector should reach its maximum. However, as stated in kontan.co.id (2018), Erdikha Elit Sekuritas said that although the mining sector was in its strongest during 2018, the prospect considered as not so bright until the end of the year. Financial markets will be dominated by external sentiment. As known, Chinese government plans to reduce the level of pollution in that "The Bamboo Curtain" country. One of the courses chosen is to reduce the use of coal energy which is targeted to decrease by 9%. It is of course giving quite an impact to Indonesian mining companies which exporting their coals to China as world's biggest coal consumer.

This study used Partial Least Square analysis as a data analysis tool test. Mining companies listed on the Indonesia Stock Exchange in 2013-2017 were used in this study. Based on the interesting explanation before, the researchers use the title “Firm Value in The Indonesian Mining Company”.

**LITERATURE REVIEW**

**Profitability on Capital Structure**

Profitability is the return on capital investment. It is calculated by dividing profits with capital investments (Wild and Halsey, 2005). High rate of return enables the possibility in financing most funding needs with internally-gained funds. Higher profitability indicates that the profits earned by the company are also high. High profit indicated that the company has quite large amount of funds from internal source, so that it will be lesser in debt. In addition, if retained earnings increase, debt ratio will automatically decrease, assuming that the company does not increase the amount of debt.

The high rate of profit allows them to obtain most of funding from retained earnings (Atmajia, 2003). In this case, the company will tend to choose retained earnings to finance most of the funding needs. The smaller the proportion of debt in company's capital structure. The cost, such as information asymmetry and bankruptcy in the use of external funds, cause the company’s own use of funds (retained earnings) to be considered as cheap. Therefore, the companies which able to get a high rate of return on assets will tend to use a lot of their own funds for investment purposes so that their debt rate will be lower. Thus, rate of debt and return on assets which equally measured by assets are considered to be negatively related, means that the greater the rate of return on assets of a company, the smaller the rate of debt per asset value. Based on the explanation, the hypothesis is concluded below:

**H1 : Profitability affects Capital Structure**

**Profitability on Firm Value**

Better profitability growth of a company implies a better prospect in the future, means that firm value for investors becomes more favorable as well. If its ability to make profits increases, stock price will increase too (Antwi, 2012). This study determined Return on Investment (ROI) as a proxy for profitability based on the consideration that ROI could measure company’s effectiveness in making net income by using the assets owned to make profits, so that it could be a success indicator in investor's view. Based on the explanation, the hypothesis is concluded below.

**H2: Profitability affects Firm Value**

**Firm Size on Capital Structure**

According to Prada (2013), firm size is one of the factors considered in determining the policy of how big funding decisions (capital structure) to comply the size or scale of company assets. Companies with high growth will always need bigger capital. So that for the companies with low sales growth, the need for capital is also smaller, thus the concept of sales growth rate has a positive relationship but the implications will create such different effects on capital structure, that is in determining the type of capital used. Companies that have high sales growth need the support of greater organizational resources (capital). So that for the companies with low sales level, the need for organizational resources (capital) is also smaller. Therefore, the concept of sales growth rate has a positive relationship, but the implications can have different effects on the capital structure, that is in determining the type of capital to be used. If the company is dealt with an increasing need of funds due to sales growth while all funds from internal sources have
been used, then there are no other choices beside using external funds, whether by debt or issuing new stocks. Based on these explanations, the hypothesis that could be concluded is:

**H3: Firm size affects capital structure**

**Firm Size on Firm Value**

According to Nurhayati (2013), the size of a company is considered to affect its value, because the larger the size, the easier for it to obtain sources of funding that can be used to achieve its goals. Companies that make bigger profits tend to have bigger retained earnings, so that they can use internal funding sources to comply their needs in funding business expansion or creating new products. The bigger it retained earnings, the bigger it needs for internal-sourced funds, and thus it will reduce the use of debt-sourced funds. Based on these explanations, the hypothesis is concluded below.

**H4: Firm Size affects Firm Values**

**Capital Structure on Firm Values**

Capital structure is the ratio of debt and owned capital in a company's financial structure (Chowdhury and Chowdhury, 2010). The right combination in capital selection will be able to produce an optimal capital structure that can be a strong foundation for the company to carry out its production activities and to bring optimal profits for the company. To determine the capital structure needs to consider various variables that affect. Capital structure is such an important issue for every company, because the pro and con regarding its capital structure will directly affect financial position. For a company with poor capital structure, having enormous debt will be a heavy burden.

In a perfect market conditions (without taxes, transaction costs, bankruptcy costs, agency costs and information asymmetries), Modigliani and Miller (1958) theorized that firm value is not affected by leverage. The trade-off model explains that if the capital structure is below the optimal point, each additional debt will increase firm value. Otherwise, if the position of capital structure is above the optimal point, each additional debt will reduce firm value. Dechamara (2017) finds that capital structure has a positive and significant impact on firm value. The results showed that company's additional debt will increase the firm value. Based on these explanations, the hypothesis is concluded below:

**H5: Capital structure affects Firm Value**

**RESEARCH METHOD**

There are four variables used in this study, such as profitability, firm size, capital structure, and firm value. Each variable consists of several indicators. The profitability was measured by Returns on Investment (ROI), Returns on Equity (ROE), and Net Profit Margin (NPM). Sales and assets were also used as the firm size. Moreover, capital structure was measured by using Debt to Equity Ratio (DER), Debt to Total Assets Ratio (DAR), and Long-term Debt Ratio (LTD). The firm value was then measured by using Market to Book Value (MBV), Price Earning Ratio (PER) and Index Understanding (IS).

The research method applied in this study was explanatory research with quantitative research approach. The samples
were mining companies listed on the IDX for 3 consecutive years during the research period. The data used in this study were secondary data, which is numeric data that describe the indicator value. This study took the data from Indonesian Stock Exchange, in form of annual report of companies which engaged in mining sectors. Data analysis on this study used Partial Least Square (PLS) analysis.

RESULTS AND DISCUSSION

The technique of data analysis in this study was Partial Least Square (PLS) with Smart PLS 3.0 analysis tool. Data analysis with PLS consisted of two stages, i.e. the evaluation of the measurement model (outer model), and the evaluation of the structural model (inner model). The outer model evaluation consisted of three criteria, namely convergent validity, discriminant validity, and composite reliability. Here are the results of the composite reliability and Cronbach alpha output:

Table 1 - Outer Loadings (Mean, STDEV, T-Values)

| Variable | Original Sample (O) | Standard Deviation (STDEV) | T Statistic (|O/STDEV|) |
|----------|---------------------|-----------------------------|-----------------|
| ROI -> Profitability | 0.621 | 0.192 | 11.216 |
| ROE -> Profitability | 0.754 | 0.058 | 23.927 |
| NPM -> Profitability | 0.765 | 0.034 | 25.632 |
| Sales -> Size | 0.985 | 0.006 | 133.752 |
| Asset -> Size | 0.977 | 0.012 | 92.506 |
| DER -> SM | 0.974 | 0.008 | 112.506 |
| DAR -> >SM | 0.939 | 0.021 | 36.549 |
| LTD -> >SM | 0.979 | 0.015 | 32.432 |
| MBV -> NP | 0.791 | 0.047 | 35.567 |
| PER -> NP | 0.674 | 0.151 | 20.891 |
| IS -> NP | 0.507 | 0.184 | 9.275 |

Source: PLS (2019)

The table on the output illustrated the value of the loading factor (convergent validity) of each indicator. The loading factor value $> 0.7$ could be said valid, but rule of thumb interpreted the loading factor value $> 0.5$ could be said to be valid as well. The table also shows all loading factor values from the profitability indicator (X1), firm size (X2), capital structure (Y) and firm value (Y2) were greater than 0.60. It showed that the indicators confirmed as valid. Inner model testing or structural model was conducted to see the correlation between the construct of significance value and the R-square of the research model. The structural model was evaluated using R-square for the dependent construct of the t-Test as well as the significance of the coefficient of structural path parameters.

Figure 1 – Structural model (Inner Model)
Source: SmartPLS (2019).
Testing of structural models is conducted by looking at the R-square value as the model of goodness-fit test.

### Table 2 – R-Square

<table>
<thead>
<tr>
<th>Variable</th>
<th>RSquare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y1</td>
<td>0.665</td>
</tr>
<tr>
<td>Y2</td>
<td>0.687</td>
</tr>
</tbody>
</table>

Source: PLS (2019)

Table 2 showed the R-Square value for the capital structure obtained at 0.665. It showed that 66.5% of capital structure variable affected by profitability and firm size. The remaining 33.5% affected by other variables studied. R-Square for the firm value obtained was 68.7%. Variable capital structure was affected by profitability, firm size, and capital structure. The remaining 31.3% was affected by other variables studied. This study also performed bootstrap method on the sample. Bootstrapping testing also was intended to minimize the problem of research data abnormalities. Bootstrapping test resulted from PLS analysis can be seen in Table 3:

### Table 3 – Path Coefficient

<table>
<thead>
<tr>
<th>Variables</th>
<th>Original Sample (O)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STERR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability -&gt; Capital structure</td>
<td>-0.032</td>
<td>0.122</td>
<td>1.105</td>
</tr>
<tr>
<td>Profitability -&gt; Firm value</td>
<td>0.256</td>
<td>0.128</td>
<td>7.481</td>
</tr>
<tr>
<td>Size -&gt; Capital structure</td>
<td>0.535</td>
<td>0.152</td>
<td>3.682</td>
</tr>
<tr>
<td>Size -&gt; Firm value</td>
<td>0.430</td>
<td>0.086</td>
<td>4.863</td>
</tr>
<tr>
<td>Capital structure -&gt; Firm value</td>
<td>-0.029</td>
<td>0.132</td>
<td>1.386</td>
</tr>
</tbody>
</table>

Source: PLS (2019)

The significance of estimated parameters provided very useful information about the correlation between research variables. The groundwork used in testing hypotheses was the value contained in output result for inner weight. Hypothesis testing could be done by comparing t-statistics with t-tables. T-tables could be obtained from 21 samples which in the end obtained t-tables as of 1.960. Thus could be concluded that the results of hypothesis testing analysis H2, H3, H4, and H5 were accepted.

Hypothesis 1 showed that the correlation between Profitability variable (X1) and Capital Structure (Y1) indicated path coefficient value of -0.032 with t value of 1.105. The value is bigger than t table (1,960). This result meant that profitability had negative and insignificant effect on capital structure, indicated incompatibility with the first hypothesis stated that profitability had significant effect on capital structure. It implies that the smaller the profitability the company has, the smaller its capital structure tends to be.

It also indicates that the companies engaged in mining sectors had minimal rate of profit to be able to affect the capital structure. It could also be seen from the debt held by such companies. Factors that affected its capital structure were profit and debt. The lower the profit rate, the lower the capital structure of the company. Mining companies should be able to maintain profitability in order to keep on improving capital structure. It was in accordance with the opinion (Wild and Halsey, 2005) which stated that profitability is calculated from profits divided with capital investment.

Hypothesis 2 showed that the correlation between Profitability variable (X2) and the Firm Value (Y2) indicated path coefficient value of 0.256 with t value of 7.481. The value is bigger than t table (1,960). This result indicated that profitability had a positive and significant effect on firm value. It implied that the better the profitability, the better the firm value. It also implied that mining sector companies had a high rate of profit that could affect firm value as seen from the increase in company stock. It could also be seen from profit rate and return of investment (ROI) yielded by mining companies. Tika (2012) explained that positive value became a desirable things, which indicated profitable or pleasurable traits, and makes the party who obtained it easier to fulfill their interest related to that value. On the contrary, value became something undesirable if negative, which indicated harming or troubling for those who obtain it and affect their interest so that the value was shunned.

Hypothesis 3 showed that the correlation of Firm Size variable (X2) with the Capital Structure (Y1) indicated path coefficient value of 0.535 with t value of 3.682. The value was smaller than t table (1,960). This result indicated that firm size had such direct positive and significant effect on capital structure. This also indicated that mining companies had sales rate and company assets...
which could affect capital structure. It can be seen that the bigger the firm size, the greater the capital structure. Thus, the bigger the assets, the easier to seek funding than smaller assets company, so that capital structure can be well developed.

Hypothesis 4 showed that the correlation of Firm Size (X2) and Capital Structure (Y1) indicated path coefficient value of 0.430 with a t value of 4.863. This value was bigger than t table (1.960). This result indicated that firm size had such positive and significant effect on the capital structure. It implied that the larger the firm size (X2), the firm value (Y2) tended to increase. It also implied that mining companies had high sales rate and assets that could affect firm value. It can be seen that the bigger the firm size, the greater the capital structure so it could increase the firm value. Thus, the bigger the assets, the easier to seek funding than smaller assets company, so that capital structure can be well developed. With the increase in capital structure caused by sales growth and rising value of assets, the value of the company will increase as well.

Hypothesis 5 showed that the correlation of the variable of Capital Structure (Y1) and Firm Value (Y2) indicated path coefficient value of -0.029 with a t value of 1.386. This value was bigger than t table (1.960). This result indicated that the capital structure had such negative and insignificant effect on firm value. It confirmed that the capital structure of mining companies listed on the Indonesia Stock Exchange in 2013-2017 had not reached their optimal point, in accordance with the theory proposed by MM which stated that if capital structure lied below the optimal point then any additional debt would increase firm value. It was explained by the Trade-off Theory where the benefits of money increasing were still bigger than the sacrifices incurred, so that the benefits of using debt could directly increased the value of the firm. The increase in firm value due to an increase in the amount of debt (debt still lied below its optimal point) was caused by the management of the company that used the debt for company’s business expansion.

CONCLUSION

The results showed that the profitability variable had negative effects and insignificant on capital structure. Firm size variable had significant effects on capital structure. This happened because the larger the size of the firm, the bigger the capital structure in complying the size or scale of company’s assets. Companies with larger size had the access to get funding source from various sources, thus will be easier to get a loan or investor to be involved because they had a bigger chance to win the competition in the industry. Firm size variable had a significant effect on firm value. It proved that a bigger firm size based on its sales and assets will affect firm value in investor’s view. It was in accordance with research conducted by Chisti et al. (2013), with a larger size, a company would be easier to obtain sources of funding that could be used in achieving company goals. Furthermore, variable of capital structure had a negative and insignificant effect on firm value. Companies that had a good capital structure could be measured from the proportion of company’s long-term permanent funding as indicated by debt, preferred stock equity, and common stock.

LIMITATION AND SUGGESTIONS

The research sample used only companies engaged in mining sector listed on IDX, so the results could not be generalized to other types of companies. Company management is expected to always be able to maintain the development of profitability and firm size in order to achieve a good capital structure and firm value. If the companies want to increase the value, they are recommended to maintain profitability that keep on rising through supervision on company’s good financial performance.

REFERENCES

Diponegoro.


Retrieved December 28, 2018