Effect of Company Firm size, Debt to Total Asset, and Return on asset on Dividend Payout Ratio
(Emprirical Study of Coal Sector Companies Listed on the Indonesia Stock Exchange in 2016-2020

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ABSTRACT

This study aims to examine the impact of company size variables, Debt to total assets (DTTA), and Return on assets (ROA) on dividend payout ratios in coal companies listed on the Indonesia Stock Exchange during the 2016-2020 period. This type of research is quantitative. The research sample consisted of 23 companies selected using purposive sampling method. Multiple linear regression analysis was used to determine the effect of the independent variables on the dependent variable. This study uses SPSS 23 data processing. The results of this study for the variables Firm Size, Debt to total assets, and Return on asset ratio have a significant effect on Dividend payout in coal companies listed on the Indonesia Stock Exchange.

Keywords: Firms size, Debt to total asset, Return On Asset, Dividend payout ratio.

INTRODUCTION

In this era, developments have had a significant impact on the global economy. Companies are faced with demands to continue to operate effectively in order to compete with other companies. To maintain the continuity and growth of the company, sufficient sources of funds and capital are needed. Adequate funds and capital can be obtained through investment. Investment in the company is an important factor that allows the company to carry out its operational activities. However, investment has risks for investors, so investors need good information from the company, one of which is the company's financial report which is published annually. Because investors invest their funds in companies that are invested in the hope that the profits will be obtained. The advantage that is obtained
by investors who do not want to take too much risk can choose dividends. Dividend distribution is a distribution of profits given by the company to shareholders, based on the profits obtained by the company. According to Yusof & Ismail (2016), companies have two options in distributing dividends to shareholders, namely if the company achieves significant profits, then it has the ability to pay large dividends, which in turn can increase the value of the company. Therefore, companies need to establish appropriate policies to manage issues related to dividend distribution. Each company has a different policy regarding the distribution of dividends to shareholders, which is known as the dividend payout ratio. The dividend payout ratio is a ratio that measures the extent to which company profits will be distributed to investors in the form of dividends (Hanafi & Halim, 2009: 86). When making an investment, investors need to understand what factors affect the Dividend Payout Ratio, one of which is company size, leverage, and profitability. Selection of company size, leverage, and profitability have an influence on the dividend payout ratio. Based on the importance of these factors as a guide for companies in determining the amount of dividends to be distributed from profits or profits earned. Many companies also use debt as a source of funds to pay dividends to investors. In addition, the size of the company also affects the amount of dividends to be distributed. These three factors are used by investors as criteria in assessing whether the company is good or not if investors plan to invest. Investors tend to view a healthy dividend payout ratio, which reflects a consistent dividend policy, adequate company size, controlled leverage and good profitability. Therefore, understanding these factors can help investors make better investment decisions.

LITERATURE REVIEW

Signalling theory
According to Jam’an (2008) Signaling Theory suggests how a company should give signals to users of financial statements. This signal is in the form of information about what management has done to realize the wishes of the owner. Signaling can be in the form of promotions or other information stating that the company is better than other companies. Signal theory explains that signaling is done by managers to reduce information asymmetry.

Pecking order theory
The pecking order theory states that companies are generally more inclined to give priority to the use of internally available funding sources within the company rather than relying on external funding sources. However, if companies do not have sufficient internal funding, they will choose to rely on external funding sources as an alternative. In situations where external funding is required, companies tend to choose to use debt rather than issuing new shares.

Agency theory
Agency theory was first developed by Michael Johnson. According to Jensen and Meckling (1976) agency theory is a theory that explains the phenomenon of dissimilar interests between principals and agents. Jensen and Meckling (1976) explain the agency relationship as a contract in which one or more persons (principals) instruct another person (agent) to perform a service on behalf of the principal and authorize the agent to make the best decisions for the principal. The essence of this trust relationship is the separation between company ownership and company control. There are differences in interests between the two parties which will later lead to agency problems.

Firms size
According to Brigham (2011), company size refers to the extent to which the company is large or small, and can be classified based on various metrics such as revenue, total assets and total equity. Companies that have a large size usually have a wider range of stakeholders. Therefore, the policies taken by the company, especially for investors, will have an impact on cash flows in the future.

Debt to total asset
The Debt to total asset ratio is a comparison used to measure the relationship between the amount of debt and the total assets of a company. This ratio provides an illustration of the extent to which company assets are financed by debt, or in other words, how much influence debt has on the
composition of company assets. According to Hery (2016: 166), the Debt to total asset ratio is used as a tool to evaluate the extent to which a company’s assets are funded with debt, or the extent to which debt contributes to financing the company’s assets.

**Return On Asset**

Return on assets (ROA) is a ratio that describes the extent to which assets contribute to achieving net profit (Hery, 2018). In other words, this ratio is used to measure the efficiency of the net profit generated from each unit of currency invested in the company’s total assets.

**Dividend payout ratio**

Dividend payout ratio (DPR) is a comparison of the percentage of profit given to shareholders in the form of dividends to the net income available to shareholders (Sartono, 2001: 491). The dividend payout ratio (DPR) that is high can be beneficial for investors, but from the company’s perspective, this can weaken the company’s internal finances.

**Effect firms size on Dividend payout ratio**

The effect of firm size on the dividend payout ratio

According to Brigham (2011), company size refers to the extent to which the company is large or small and can be classified based on various metrics such as company size, total assets, and total equity. This concept is also in line with the theory of Signaling Theory, in which both small and large companies have the ability to provide good information to investors. This is a positive signal, and only companies with good quality are able to fulfill their obligations to pay dividends to shareholders. Conversely, companies with low quality may not be able to pay dividends to shareholders.

**H1: Firms size has an effect on the dividend payout ratio.**

**Effect of Debt to total assets on Dividend payout ratio.**

The Debt to total assets ratio is a metric used to compare the amount of debt to the total assets of a company. This ratio provides an indication of the extent to which a company’s assets are financed through debt, or how big the impact of debt is on the management of company assets. Debt can increase the value of the company, but excessive use of debt can reduce the company’s net profit due to high interest expenses, which in turn affects the company’s ability to pay dividends. If the company tends to rely on debt as a source of funding, the risk of bankruptcy for the company will also increase.

**H2: Debt to total assets has an effect on the dividend payout ratio.**

**Effect of Return on asset on Dividen payout ratio**

Return on assets (ROA) is a comparison that shows the extent to which assets play a role in generating net profits (Hery, 2018). In simple terms, this ratio is used to assess the efficiency of using a company’s total assets in generating net profit per unit of currency invested.

**H3: Return on asset has an effect on Dividend payout ratio.**

Research Model
METODE PENELITIAN

Types of research
The research method used in this study is a quantitative approach, because the data collected is in the form of numbers. The data source used comes from the company’s financial statements.

Object of research
This research focuses on coal sector companies listed on the Indonesia Stock Exchange in the 2016-2020 period.

Population
This study involved 25 coal sector companies listed on the Indonesia Stock Exchange during the 2016-2020 period as the study population.

Sample
Purposive sampling is a method used for non-random sampling in this study, in which sample selection is based on certain considerations that are in accordance with the objectives and research problems to be carried out.

Table 1. The process of withdrawing the number of samples

<table>
<thead>
<tr>
<th>No</th>
<th>Criteria</th>
<th>Number of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The coal company, listed on the Indonesia Stock Exchange 2016-2020</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>Companies that do not have an annual report and complete financial data sequentially.</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Number of companies that meet the sample criteria</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>Sample observation period</td>
<td>115</td>
</tr>
</tbody>
</table>

Based on table 1, there are 23 companies on the IDX that meet the research sample criteria. So the number of observations in this study is 84 observations.

Table 2. Sample measurement

A clearer operational definition of each research variable can be seen in the following table:

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Indikator</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variabel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dividen Payout Ratio</td>
<td>DPR = ( \frac{Total Debt}{Total Asset} )</td>
<td></td>
</tr>
<tr>
<td>Independent Variabel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firms size</td>
<td>Ferm size = ( \ln (Total Asset) )</td>
<td></td>
</tr>
<tr>
<td>Debt to total asset</td>
<td>DTTA = ( \frac{Total Debt}{Total Asset} )</td>
<td></td>
</tr>
<tr>
<td>Return On asset</td>
<td>ROA = ( \frac{Laba Bersih}{Total Asset} )</td>
<td></td>
</tr>
</tbody>
</table>

RESULT AND DISCUSSION

The collected data and information will be processed using SPSS software. After processing the data, a general summary of each research variable will be produced, as listed in Table 1. This study involved 23 companies selected using purposive sampling criteria, as a sample in this study from the
entire sample obtained as many as 84 observations with an average company size is 29.29 with a standard deviation of 1.53 where the minimum and maximum data ranges are in the range of 25.65 to 32.25 Furthermore, this research has an average Debt to total asset of 0.54 with a standard deviation of 0.27 and has a a minimum of 0.08 and a maximum of 1.19 Then the next variable has an average return on assets value of 5.34 with a standard deviation of 7.60 where the minimum and maximum data range is in the range of -9.85 to 23.64 and the dependent variable Dividend The payout ratio has an average value of 30.39 with a standard deviation of 37.88, while the minimum and maximum data are in the range of 0.00 and 133.07. The following is a descriptive table of research variable statistics:

<table>
<thead>
<tr>
<th>Table 3. Descriptive statistical research variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Ukuran Perusahaan</td>
</tr>
<tr>
<td>DTTA</td>
</tr>
<tr>
<td>ROA</td>
</tr>
<tr>
<td>DPR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tabel 4. Hasil uji normalitas</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-Sample Kolmogorov-Smirnov Test</td>
</tr>
<tr>
<td>Test Statistic</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

Based on the research results contained in Table 4, a normality test was carried out using the One Sample Kolmogorov-Smirnov test. The results of the analysis show that the Asymp. Sig. (2-tailed) is 0.155. This study uses a significance level of 5% or 0.05. Based on the table presented above, it can be concluded that the Asymp. Sig. (2-tailed) of 0.155 is greater than 0.05. Therefore, it can be assumed that the data used in this study has a normal distribution.

<table>
<thead>
<tr>
<th>Table 5. Hasil uji multikolineritas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficientsa</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Variabel</td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>Ukuran Perusahaan</td>
</tr>
<tr>
<td>DTTA</td>
</tr>
</tbody>
</table>

Based on the data in Table 4, it can be concluded that all variables have a tolerance level above 0.10 and a VIF value below 10. These results indicate that there is no multicollinearity problem in the research data.

<table>
<thead>
<tr>
<th>Tabel 6. Hasil Pengujian Autokorelasi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durbin-Watson</td>
</tr>
</tbody>
</table>

Based on the analysis, it can be concluded that all variables have a tolerance level above 0.10 and the VIF value is below 10. These results indicate that there is no multicollinearity problem in the research data. The DW values obtained were between -2 < 1.974 < 2. So it can be concluded that there were no positive or negative autocorrelation symptoms for each variable.
With reference to the data analyzed in Table 5, we can conclude that the multiple linear regression equation used in this study can be formulated as follows:

\[ \text{DPR} = -126,272 + 5,668X_1 + 37,665X_3 + 2,056X_3 + e \]

Based on the regression equation given, we can see that the constant value is -126.272. The coefficient value for the firm size variable is 5.668. For the variable Debt to total assets, the coefficient value is -37.655. Furthermore, the variable Return on assets has a coefficient of 2.056.

Based on the test results, the Adjusted R Square value is 0.377 or 37.7%. This shows that as much as 37.7% of the variation in the dividend payout ratio variable can be explained significantly by the variables company size, Debt to total assets, and return on assets. The remaining 62.3% is influenced by other factors that are not included in this research model.

From the results of the f statistical test in Table 7, the *f* value is 17.768 with a significance level of 0.000 indicating that the significance is lower than 0.05. Therefore, it can be concluded that variables such as company size, ratio of debt to total assets, and rate of return on assets affect the dividend payout ratio.

### Tabel 7. Uji analisis linear berganda

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized coefficients</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
<td>sig</td>
<td>Adjusted R²</td>
</tr>
<tr>
<td>-126.272</td>
<td>63.559</td>
<td></td>
<td>-1.987</td>
<td>.050</td>
<td>.377</td>
</tr>
<tr>
<td>5.668</td>
<td>2.171</td>
<td>.230</td>
<td>2.611</td>
<td>.011</td>
<td></td>
</tr>
<tr>
<td>-37.665</td>
<td>12.462</td>
<td>-.271</td>
<td>-3.022</td>
<td>.003</td>
<td></td>
</tr>
<tr>
<td>2.056</td>
<td>.458</td>
<td>.413</td>
<td>4.493</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

**The effect of firm size on the dividend payout ratio**

Berdasarkan hasil uji hipotesis sebelumnya, ditemukan bahwa ukuran perusahaan memiliki pengaruh yang signifikan terhadap dividend payout ratio. Ukuran perusahaan merupakan indikator tentang skala dan kapabilitas perusahaan untuk memasuki pasar modal dan sumber pendanaan eksternal lainnya. Semakin besar ukuran perusahaan, maka semakin besar pula jumlah dividen yang akan dibagikan kepada para investor.

Based on the results of the previous hypothesis test, it was found that firm size has a significant effect on the dividend payout ratio. Company size is an indicator of the company's scale and capability to enter the capital market and other external funding sources. The larger the size of the company, the greater the amount of dividends that will be distributed to investors.

The results of this study are consistent with research conducted by Renaje (2017) which shows that company size plays an important role in influencing the dividend payout ratio with significant significance. Similar findings are also supported by Bahri's research (2017) which found that company size has a significant effect on the dividend payout ratio. However, another study conducted by Helmina & Hidayah (2017) showed different results, where they found that company size had no effect on the dividend payout ratio.

**Effect of Debt to total assets on the dividend payout ratio**

Based on the results of the second hypothesis testing that has been done, it was found that there is a negative and significant effect between Debt to total assets on the dividend payout ratio. This finding indicates that the higher the ratio of debt to total assets (debt to total assets), will have a negative impact on the distribution of dividends to shareholders. This is due to the fact that the higher the level of
dependence of a company on debt to finance its operating assets, the higher the interest expense that must be faced. This impact then affects the decrease in dividends given to shareholders or investors.

This research is in line with the pecking order theory which explains that companies will use debt to run their company’s operations. In accordance with the research results, the researchers examined the fact that DTTA has a negative effect on the dividend payout ratio. indicates that the company has debt to run its business, when the company tries to pay debts to creditors, the company has not been able to pay out profits in the form of dividends to shareholders.

The results of this study are consistent with previous research by Ahmad and Wardani (2014), which showed that leverage has a significant negative impact on the dividend payout ratio. That is, the higher the level of leverage of a company (Debt to total assets), then the dividend payout ratio will tend to decrease. However, research conducted by Ritha and Koestiyanto (2013) The results showed a significant difference, where it was found that Debt to total assets had a positive and significant impact on the dividend payout ratio. This indicates that the higher the level of corporate leverage, tends to increase the dividend payout ratio.

The Effect of Return on Assets on the Dividend Payout Ratio

Based on the results of the third hypothesis test that has been done previously, that return on assets has a significant effect on the dividend payout ratio. The findings obtained show that the higher the company’s ability to generate profits, the higher the company’s ability to generate profits will increase the likelihood of the company paying dividends in cash. This is because when the company succeeds in generating high profits, it is likely that there will be excess profits which of course the company can use to fulfill obligations to investors.

This research is in line with the theory of agency theory when a company succeeds in getting a large profit, the company will consider whether the profit earned will be distributed to shareholders or retained. Where the agents prefer the profits earned to be used for company expansion, but for the principal the profits earned are distributed to shareholders.

This study supports the previous findings by Shabrina (2020) and Bahri (2017) which show that there are differences of opinion regarding the effect of return on assets on the dividend payout ratio. However, this opinion differs from the findings by Trilestari and Kusuma (2016) who concluded that return on assets has no effect on the dividend payout ratio.

CONCLUSION

Based on the analysis and discussion that has been carried out on the effect of independent variables such as Firm size (Ln Asset), Debt to total assets (DTTA), and Return on assets (ROA) on the dependent variable dividend payout ratio (DPR), this study used a sample of 23 companies from the coal sector listed on the Indonesia Stock Exchange during the 2016-2020 period. From the results of multiple linear regression testing, it was found that firm size (Firm size), Debt to total assets (DTTA), and Return on assets (ROA) have a significant effect on the dividend payout ratio (DPR). Based on the results of the research that has been done, the following suggestions are obtained.

1. Investors are advised to pay close attention Before making an investment decision, investors are advised to pay attention to factors such as company size, debt to total assets ratio, and return on assets. because these factors can affect and predict the dividend payout ratio.
2. Companies are advised to strive to maintain their consistency in paying dividends in cash to shareholders, so that the welfare of shareholders can be maintained and will become a tool for companies to attract the flow of other investors’ funds from outside the company, so that the
value of the company and the existence of the company in Long term can be maintained continuously.

3. For future researchers, the researcher suggests adding new variables and other sectors listed on the Indonesian Stock Exchange.

REFERENCES


