Effect of Capital Structure, Tax Avoidance, Firm Size on Firm Value with DPR as Moderation

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Abstract

Infrastructure is an integrated part of national-level development and the axis of economic movement. The more intensive infrastructure development is carried out, the higher the competition between construction companies to obtain capital from investors. This study aims to analyze the effect of Capital Structure, Tax Avoidance, and Firm Size towards Firm Value with Dividend Payout Ratio as a Moderating Variable conducted on construction and building sub-sector companies listed on the Indonesia Stock Exchange in 2015-2019 period. This research was a quantitative research where data was processed using the SPSS 25 application. The population in this study was a construction and building sub-sector company that has gone public and published its financial or has been listed on the Indonesia Stock Exchange in 2015-2019 period. Determination of the sample using purposive sampling method. In this study there were 30 samples of companies. This study used multiple linear regression analysis and Moderated Regression Analysis (MRA). The results of this study indicate that: (1) Capital structure affects firm value; (2) Tax Avoidance does not affect firm value; (3) Firm Size affects firm value; (4) Dividend Payout Ratio is able to moderate the effect of capital structure towards firm value; (5) Dividend Payout Ratio is not able to moderate the effect of tax avoidance towards firm value; (6) Dividend Payout Ratio is not able to moderate the effect of firm size towards firm value.

Introduction

Infrastructure is an integrated part of national-level development and the axis of economic movement. Of the total provision of allocations, infrastructure is considered to be the driving force in development at the regional and national levels, so that infrastructure development is believed to be the promoter of development. The National Strategic Project was declared important by the National Economic and Industry Committee (KEIN), because it was included in the government's priority program. This development is estimated to be able to increase gross domestic income by up to 2.5 percent in 2019. In 2023, it is estimated to be able to reach 7.2 to 9.3 percent. In addition, based on the results of a study by the University of Indonesia Community Economic Research Institute (LPEM UI) and Tusk Advisory,
infrastructure development in Indonesia has a positive impact on economic growth (Tempo.co, 2018).

The government's intensive development of infrastructure over the last five years has certainly affected the operational activities of construction companies. For five years, budget disbursement has always increased (Rosiana, 2019). In that span of years, one of the programs that became the main target of the Working Cabinet of President Joko Widodo and Vice President Jusuf Kalla was infrastructure development. Since 2015, the government has changed spending subsidies into productive spending, both in terms of education, health, and infrastructure development.

A construction company is a company that includes activities related to building design, implementation and observation and maintenance. Considering that physical infrastructure and facilities are the basis for the growth of sectors in national development, the role of construction companies is considered vital in realizing development growth. The more intensive infrastructure development is carried out, the higher the competition between construction companies to obtain capital from investors. Investors can measure the company's success by looking at the stock price which is an illustration of the company's value. A high stock price shows the performance of a company is of good value and makes it attractive for investors who will invest their capital in the future.

Several factors can influence the increase in the value of the company, including the capital structure. Capital structure is defined as a combination of foreign capital and equity. A capital structure that provides added value for the company is a capital structure that can maximize the balance when taking risks. The combination of the amount of debt and equity that can make the company's stock price rise is the optimal capital structure (Brigham & Houston in Utomo et al., 2018). Research conducted (Rakhmat, Syriefur, 2017) and (Hirdinis, 2019) stated that capital structure had an effect on firm value while research results Nurhayati & Kartika, (2020) and Hamam et al., (2020) stated that firm value is not affected by the capital structure.

In investing, investors will pay attention to the percentage of dividends that will be given by the company. Therefore, the company will carry out a strategy to get as much profit as possible. One possible strategy is to reduce tax costs. Differences in company views and government regulations on taxation cause management to take action, namely to carry out tax management. Tax Avoidance is an effort to reduce tax costs based on the applicable tax laws and regulations by the company. Research conducted by Victory & Cheisviyani, (2016) and Pratiwi, (2018) shows the effect of tax avoidance on firm value, in contrast to research conducted Akbari et al., (2019) and Rudyanto & Pirzada, (2020) show that tax avoidance does not affect firm value.

In addition to capital structure and tax avoidance, firm size is considered to have an influence on firm value, because the larger the company, the greater the possibility for the company to obtain financing, so that large companies have more
opportunities to increase profitability than small companies. The availability of a large number of funds makes the management and maintenance of intellectual capital more optimal so that it will be proportional to the results of intellectual capital performance (Wiyono, 2011). Research conducted Sondakh, (2019) and Natsir & Yusbardi, (2020) showed a positive effect of firm size on firm value, while research conducted by Imron & Kurniawati, (2020) and Budiharjo, (2020) show that there is no influence of firm size on firm value.

Referring to previous research, it is still found that there is an inconsistency. So there may be external factors that influence. This study includes the influence of the Dividend Payout Ratio variable as a moderating variable to see whether the Dividend Payout Ratio can strengthen or weaken the effect of capital structure, tax avoidance, firm size on firm value. Dividends can be a signal for shareholders to see whether the company whose capital will be placed can provide benefits in the future or not. In addition, due to the COVID-19 outbreak, the allocation of funds for infrastructure development was diverted and budget cuts were made for the implementation of the PUPR ministry's projects as a result of the Covid-19 virus outbreak, so that several building construction sub-sector companies experienced a decline in their profitability. Therefore, it is important to carry out research on the value of the company again so that it can be used as a review for investors who will invest in building construction sub-sector companies that reflect the growth rate, dividend policy and performance of the company's management in facing challenges.

Literature Review

Trade off theory

The trade-off theory assumes that when the benefits and sacrifices made with debt as well as the agency costs of financial difficulties and the tax benefits of debt financing can be offset, then an optimal capital structure will be achieved. Based on this theory, when the income tax deduction is equivalent to debt, the company can have an optimal capital structure. If the company wants to increase the value of the company through earnings per share (EPS), additional investment financing must be funded by external capital (Nurhayati, R., Titisari, K. H., & Wijayanti, 2019)

Firm Value

According to Suffah, (2016) investors' assessment of the company's potential success with stock prices is interpreted as company value. Husnan, (2015) defines company value as the amount of sacrifices that potential buyers are willing to make when a company is transferred, large profits will be obtained by the owner of the company following the size of the company.
Capital Structure

According to Chaidir, (2014) the capital structure is a balance between the company’s total liabilities and equity so that the capital structure can be expressed by the leverage ratio (DER). Capital structure is defined as the ratio between foreign capital and equity. Capital structure describes the theory about the impact of the existence of a capital structure on firm value, describes the company’s financing policy in determining the ratio of debt and equity of the company. The source of company financing comes from within the company in the form of retained earnings.

Tax Avoidance

Tax avoidance is one of the legal ways to take advantage of loopholes in tax legislation that is intended to avoid taxes. Priantara, (2011) states that tax avoidance is an effort that still complies with tax legislation by taking legal loopholes to reduce the tax burden. Tax avoidance is classified as a control measure to minimize unwanted tax burdens.

Firm Size

Company size is a measure of the financial strength of a company (Hermuningsih, 2013). The size of the company reflects the scale of the company which is indicated by the total and average of assets and sales owned.

Dividend Payout Ratio

The dividend Payout Ratio is the percentage of profit that is realized in the form of dividends (Sudana, 2011) With the Dividend Payout Ratio, investors can find out how much profit the company distributes as well as how much profit is used for company operations.

Based on the trade off theory, companies can take advantage of debt if the benefits are greater than the sacrifices made. With the trade off theory, managers will determine the capital structure based on the framework between tax savings and the cost of financial difficulties. The company will prefer to increase its debt ratio to increase profitability and reduce tax burden. So when debt increases, taxes will decrease. Research conducted Utomo et al., (2018), Laksono et al., (2019), Pranata & Pande Dwiana, (2020) provides results that capital structure affects firm value

H₁ : Capital structure affects firm value

According to Victory & Cheisviyani, (2016) for Indonesian tax managers, tax avoidance is still classified as an advantage because it is considered that the detection risk can still be minimized. If the company can reduce costs as a tax burden, it means...
that the company will pay less tax costs. The less costs used, the greater the company's profit, thus the value of the company increases and tends to attract investors to invest. Research from Sugiyono, (2015), Herdivanto, (2015), and Nugraha & Ery Setiawan, (2019) shows the effect of Tax Avoidance on firm value.

H₂ : Tax Avoidance affects firm value

Firm size contributes to increasing firm value, because the wider the scope of the company, the easier it will be to obtain financing from the capital market. The total assets and capital used by the company to finance its operational activities are the benchmarks for assessing the scale of the company. Firm value will be influenced by the size of the company, because both are directly proportional to the management of intellectual capital. Research conducted Panggabean, (2018), Kartika Dewi & Abundanti, (2019), Pranata & Pande Dwiana, (2020) and Aldi, Erlina, Amalia, (2020) shows firm size has an effect to firm value.

H₃ : Firm Size affects firm value

Dividend Payout Ratio refers to the amount of profit that is realized in dividends with the target shareholders. Threat off theory shows that companies prefer external financing, for example in the form of debt. The value of the company will increase if the company is able to combine external and internal financing for the benefit of the company. Research conducted Burhanudin & Nuraini, (2018), Dhani et al., (2018), Nurhayati & Kartika, (2020) shows that the Dividend Payout Ratio moderates the effect of capital structure on firm value.

H₄ : Dividend Payout Ratio moderates the effect of capital structure on firm value

Dividend policy means the company's financial determination to distribute profits earned as dividends or retained earnings. Based on the bird in the hand theory, investors prefer the certainty of their investment prospects, so they prefer to distribute dividends rather than capital gains. In addition, based on signal theory, dividends are considered a positive signal for shareholders, because if the company distributes large amounts of dividends, it will earn high after-tax profits. Research conducted by Apsari & Setiawan, (2018), Yee et al., (2018), Oktaria, (2020) and Apriliani, (2020) shows that the Dividend Payout Ratio moderates the negative effect of tax avoidance on firm value. That is, the negative effect of tax avoidance can be reduced due to the distribution of dividends to investors, because dividend payments are considered to improve investor welfare

H₅ : Dividend Payout Ratio moderates the effect of Tax Avoidance on firm value
Firm size indicates a measure of the effectiveness of a company. A large firm size shows the company's commitment to continuously improve its performance, as a result the market is willing to pay a high price to acquire its shares. The scale of the firm will affect its business activities. So it is expected that the profit generated will follow the increase. Research conducted Khoiriyah, (2018) and Betaningtyas, (2019) show that Dividend Payout Ratio is able to moderate Firm Size influence on firm value.

H₆ : Dividend Payout Ratio moderates the effect of Firm Size on firm value.

Method

This study has a population of all construction and building sub-sector companies listed on the Indonesia Stock Exchange in 2015-2019, which are 39 companies. While, purposive sampling method in this study was used to determine the sample. Purposive sampling is a way of determining the sample by making certain criteria limits, so 30 companies have chosen for sample. This research used data from financial reporting of the construction sub-sector companies for the period 2015 to 2019.

Table 1. Definition and Operational Variable

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Measurement</th>
<th>Skale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Firm Value</td>
<td>( PBU = \frac{Market \ Price \ per \ Share}{Book \ Value \ per \ Share} ) [(Rakhmat, Syriefur, 2017)]</td>
<td>Ratio</td>
</tr>
<tr>
<td>2.</td>
<td>Capital Structure</td>
<td>( DER = \frac{Total \ Liabilities}{Total \ Equity} ) [(Rakhmat, Syriefur, 2017)]</td>
<td>Ratio</td>
</tr>
<tr>
<td>3.</td>
<td>Tax Avoidance</td>
<td>( ETR = \frac{Total \ Tax \ Expense}{Pre \ Tax \ Income} ) [(Apsari &amp; Setiawan, 2018)]</td>
<td>Ratio</td>
</tr>
<tr>
<td>4.</td>
<td>Firm Size</td>
<td>Firm Size = Ln (Total Assets) [(Marlisa, Otty; Fuadati, 2016)]</td>
<td>Ratio</td>
</tr>
<tr>
<td>5.</td>
<td>Dividend Payout Ratio</td>
<td>( DPR = \frac{Dividend \ per \ Share}{Profit \ per \ Share} ) [(Zais, 2017)]</td>
<td>Ratio</td>
</tr>
</tbody>
</table>
Result and Discussion

Table 2. The Result of Uji T

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>$\beta$</th>
<th>t</th>
<th>Sig</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Structure</td>
<td>-0.263</td>
<td>-2.364</td>
<td>0.020</td>
<td>Supported</td>
</tr>
<tr>
<td>Tax Avoidance</td>
<td>0.127</td>
<td>0.386</td>
<td>0.701</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Firm Size</td>
<td>0.070</td>
<td>2.767</td>
<td>0.007</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Processed data SPSS v.25

Hypothesis 1 state that capital structure has effect on firm value. Based on result of significant in table 2, the results show that there is a significant effect on firm value (Sig = 0.020), which mean that capital structure affect firm value, so it can be conclude that hypothesis 1 supported. Hypothesis 2 states that tax avoidance effect on firm value. Based on result of Uji T in table 2, there is not significant effect between tax avoidance and firm value (Sig = 0.0701). So, it can be concluded that hypothesis 3 not supported. Hypothesis 3 state that firm size has effect on firm value. Based on result in table 2, show that firm size has significant effect on firm value (Sig=0.007). So, it can be concluded that hypothesis 3 is supported.

Table 3 The Result of MRA Test

<table>
<thead>
<tr>
<th>Moderating Variable</th>
<th>$\beta$</th>
<th>t</th>
<th>Sig</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPR</td>
<td>-0.439</td>
<td>-0.708</td>
<td>0.481</td>
<td>-</td>
</tr>
<tr>
<td>Capital Structure*DPR</td>
<td>0.608</td>
<td>2.248</td>
<td>0.027</td>
<td>Supported</td>
</tr>
<tr>
<td>Tax Avoidance*DPR</td>
<td>0.123</td>
<td>0.724</td>
<td>0.471</td>
<td>Not Supported</td>
</tr>
<tr>
<td>Firm Size*DPR</td>
<td>-0.192</td>
<td>-0.299</td>
<td>0.765</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

Source: Processed data SPSS v.25

Hypothesis 4 state that DPR can moderates effect of capital structure on firm value. Based on result MRA Test on table 3, dividend payout ratio can moderate the effect of capital structure on firm value (Sig = 0.027). In addition, the result of DPR...
show that is not significant and the interaction value of the capital structure and the DPR is significant, so it is classified as a Pure Moderator. So, it can be concluded that hypothesis 4 is supported. Hypothesis 5 state that DPR can moderates effect of tax avoidance on firm value. Based on result MRA Test on table 3, dividend payout ratio can’t moderate the effect of capital structure on firm value (Sig = 0.471). DPR can’t moderate the effect of tax avoidance on firm value. In addition, the result of DPR is not significant, then result of the interaction of tax avoidance and the DPR is also not significant, so it is classified in the Homologizer Moderator. So, it can be concluded that hypothesis 5 is not supported. Hypothesis 6 state that DPR can moderates effect of firm size on firm value. Based on result MRA Test on table 3, DPR can’t moderate the effect of firm size on firm value (Sig = 0.765). DPR can’t moderate the effect of firm size on firm value. In addition, the value of DPR is not significant, and the interaction value of firm size and DPR is also not significant, so it is classified in the Homologizer Moderator. So, it can be concluded that hypothesis 6 is not supported.

**Conclusion**

Based on the results of this study show that capital structure has an effect on firm value, tax avoidance cannot affect firm value, firm size has an effect on firm value, DPR moderates the effect of capital structure on firm value, DPR cannot moderate the effect of tax avoidance on firm value, DPR cannot moderate the effect of firm size on firm value. This research can be used as a review for investors who will invest in the company’s construction sub-sector that reflects the growth rate, dividend policy and the company's management performance in facing challenges.

**Acknowledgment**

The researcher hopes that this research can provide implications and support for the development of accounting science, especially in the field of financial accounting related to capital structure, tax avoidance and firm size. In addition, this study is intended to provide information, especially for investors regarding the impact of capital structure, tax avoidance and firm size on firm value, so that it can be used as an illustration in determining investment in the company.

Based on the conclusions and implications above, it is hoped that future researchers can expand the object and add a period of research, so that samples can be obtained that better describe the actual situation. In addition, it is hoped that further researchers will add several factors that affect firm value and use other measurements in measuring variables.

**References**

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