The Effect of Firm Size on Tax Aggressiveness with Moderating Role of Earnings Management

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ARTICLE INFO ABSTRACT

This study aims to find empirical evidence of the effect of firm size on tax aggressiveness and the moderating role of earnings management. The population in this study is the restaurant, hotel, tourism, and transportation sub-sector companies listed on the Indonesia Stock Exchange (IDX) for the 2013-2019 period. The sampling technique used was purposive sampling, so the sample data obtained was 80. Regression analysis and moderate regression analysis were used to analyze the data. The results of this study indicate that firm size does not affect tax aggressiveness. Earnings management moderates the effect of firm size on tax aggressiveness. Earnings management is a pure moderation of the effect of firm size on tax aggressiveness. Large companies can manage profits to reduce taxes by using accounting methods that will reduce their income. Suggestions for companies to reduce potential tax aggressiveness. So that the state does not suffer losses. Reducing potential tax aggressiveness aims to improve financial performance according to reality so that it can attract investors to invest in the Company.

Introduction

State tax revenues are a source of funding for national development in Indonesia. Because taxes are coercive, paying taxes is an obligation for the Indonesian people. Tax revenues can guarantee the economic growth rate, and the implementation of national development can run well so that the welfare of citizens can be achieved. Taxes have a dominant contribution portion to the State Revenue and Expenditure Budget (APBN) compared to other revenues (Siregar & Widyawati, 2016).

Tax is a burden for corporate taxpayers or individual taxpayers. The existence of taxes will reduce the number of company profits. Therefore, companies tend to minimize the tax burden within limits where existing rules are not violated. The amount of tax that is the taxpayer's obligation is related to the amount of income. Companies with a significant income mean that the tax borne is also hefty. Efforts to minimize the tax burden consist of legal and illegal methods. Efforts to minimize tax
are carried out through transactions legally that are not prohibited by tax regulations. Weaknesses or loopholes in tax regulations are often the entrance to tax evaders (Winarsih et al., 2019). Meanwhile, tax evasion is carried out in illegal efforts to minimize the tax burden.

The researcher uses tax aggressiveness as the dependent variable. Tax aggressiveness is a strategy used by corporate management, which is a set of processes, practices, resources and options aimed at maximizing the income after all corporate entities and obligations owed to other stakeholders. Implementing such a strategy aims to reduce the tax base that allows for potentially high non-tax costs from conflicting agencies or tax authorities, such as penalties and rent extraction. The purpose of the Company doing tax aggressiveness is to increase the Company’s net profit in order to create a positive view for foreign investors (Innocent & Gloria, 2018).

Companies carry out tax aggressiveness with legal (tax avoidance) and illegal (tax avoidance) actions (Diatmika & Sukartha, 2019). Tax aggressiveness in tax avoidance takes advantage of loopholes in tax regulations. Tax aggressiveness does not violate the rules but can harm the country. Tax aggressiveness is a risky action that risks the Company’s reputation and results in the imposition of fines in the future (Yuwono, 2019). The government was significantly disadvantaged due to several cases of tax aggressiveness, such as the state-owned Garuda Indonesia, which carried out financial manipulation in 2018. PT. Mahata Aero Technology transactions recorded in Garuda 2018 financial statements include window dressing. One of the reasons companies do window dressing is to avoid taxes.

Research conducted with the object of the tourism, restaurant, and hotel sector has never been studied before; therefore, the researcher uses the tourism, restaurant, and hotel sub-sector companies and the transportation sub-sector. Indonesia is one of the Asian countries that have natural beauty and cultural diversity, making it the most visited tourist destination. The number of tours makes tourism services, restaurants, hotels, and transportation also increase. The increase in corporate income is one of the causes of tax aggressiveness so that the burden of paying corporate taxes is minimal.

Companies carry out tax aggressiveness because various factors drive it. These factors include firm size and earnings management. Firm size describes the size of the Company based on total assets. If the total assets are significant, the Company has an advantage in the sources of funds obtained to attract the government’s attention. The Company is likely to be more aggressive in tax obligations. In contrast to companies with low total assets, the Company will lack the sources of funds obtained, so paying taxes will be difficult (Sopiyana, 2022; Tiaras & Wijaya, 2017; Yuliana & Wahyudi, 2018; Allo et al., 2021). That firm size affects tax aggressiveness. In contrast to research conducted by Sari et al., (2022); Kalbuana et al., (2020); Goh et al., (2019); Kurniawan,
(2019); and Waruwu & Ely, (2019) that firm size does not affect tax aggressiveness.

Another factor that affects tax aggressiveness is earnings management. According to Scott, (2015), earnings management is a manager’s choice of accounting policies or actions that affect earnings to achieve several earnings goals. Companies that are aggressive in earnings management show that the Company is doing tax aggressiveness. Tax aggressiveness will reduce the tax burden that the Company must pay. Earnings management has a positive and significant effect on tax aggressiveness (Suyanto & Supramono, 2012; Feryansyah et al., 2020; Irawan et al., 2020). On the other hand, Bayunanda & Arles, (2018); Nurlis et al., (2021), earnings management harms tax avoidance. Novivanti et al., (2017) shows that earnings management does not affect tax aggressiveness.

This study replicates previous research Ayem & Setyadi, (2019) and Feryansyah et al., (2020). However, there is a difference between this study and previous research, namely, the earnings management variable as a moderating variable. There has been no previous study about moderating the role of earnings management on the effect of firm size on tax avoidance; thus, this is the novelty of this research. Researchers use earnings management as a moderating variable because large companies carry out more financial transactions than small companies. Therefore, large companies will find it easier to generate income. Furthermore, companies become more aggressive in reducing their tax burden by choosing accounting methods to reduce their income to measure earnings management.

**Literature Review**

**Agency Theory**

Shareholders have an interest in maximizing company profits. At the same time, management has a different orientation, namely compensation from the Company. Discourse conflicts are conditions that reflect differences in interests and orientations between shareholders and management (Susanto et al., 2018). The higher the company’s profit, the bigger the size of the company. The company’s large size is why companies are increasingly aggressive in minimizing tax obligations. One of the efforts made by the Company’s management is income smoothing. The more companies that perform income smoothing show a high tax aggressiveness. Management conducts tax aggressiveness so that net profit after tax remains high so that the Company’s value also increases. The Company’s value increases because management is considered successful as an agent in running its business. On the other hand, the owner prefers management to run the entity as well as possible and not to do tax aggressiveness that can threaten the Company's good name and business continuity (Charisma & Dwimulyani, 2019).

**Tax Aggressiveness**
Tax aggressiveness is manipulating taxable income designed through tax planning, either using methods classified legally with tax avoidance or illegally with tax avoidance. The Company considers taxes as an additional burden so that the Company's profits are reduced. Therefore, companies tend to look for ways to reduce the Company's tax burden (Sugiyarti & Ramadhani, 2019). The Company's motivation to do tax aggressiveness is to minimize the tax burden through tax planning. One way to measure tax aggressiveness is through the Book Tax Difference (BTD) formula (Nofrita & Sebrina, 2014) to determine the ratio of deferred tax to the Company's total assets.

\[
\text{BTD} = \frac{\text{Pajak Tangguhan}}{\text{Total Aset}}
\]

Firm Size

Firm size is a scale for grouping the size of the Company. According to Brigham & Houston, (2019), company size is the size of a company indicated or assessed by total assets, sales, profit, tax expense, and others. Large companies will be more stable in generating profits when compared to small companies (Putra & Jati, 2018). Classification of firm size can be based on the Company's assets. If the Company has a sizeable nominal asset, then the Company can be classified as a large company. Firm size is calculated using the natural logarithm of the total assets owned by the Company (Tiaras & Wijaya, 2017), namely:

\[
\text{Firm Size} = \ln (\text{Total Assets})
\]

Significant total assets reflect the more extensive the company's size so that the Company will tend to be tax aggressive. Based on previous research by Yuliana & Wahyudi, (2018) and Ayem & Setyadi, (2019), company size significantly affects tax aggressiveness. The authors propose the following hypothesis:

H1: Firm size affects tax aggressiveness.

Earnings Management

According to Sulistyanto, (2018), if the Company earns a significant profit, the consequence is that the Company must also pay a significant tax to the government. Thus, there is a tendency that managers will minimize their obligations, including tax obligations. Therefore, managers take earnings management steps. Managers know more information to manage company profits. Surahman & Firmansyah, (2017) stated that the discretionary accrual element, full of uncertainty, indicates earnings management. Discretionary accruals impact the difference between taxable profit and accounting profit. Researchers use an empirical model to detect earnings
management developed by Healy, (1985). Earnings management indicators are Discretionary Accruals (DA):

\[ DA = TAC - NDA \]

\[ TAC = \text{Net Income} - \text{Cash Flows from Operations} \]

\[ NDA = \frac{\sum TA}{T} \]

Sari, (2019) suggests that large-sized companies tend to have high profits. Companies that are aggressive in carrying out earnings management will appear that corporate tax aggressiveness is also high. Companies that carry out earnings management can also be identified through a small tax burden. Large companies can achieve significant revenues as well. Therefore, large companies have the possibility of choosing accounting methods that can reduce their income (Amertha et al., 2014). It aims to minimize the Company’s tax burden. The authors propose the following hypothesis:

**H2**: Earnings management moderates the effect of firm size on tax aggressiveness.

**Method**

The research design is a causal relationship, namely a causal relationship. There are independent variables (influenced variables) and dependent (influenced variables) (Sugiyono, 2016). Type of research is quantitative research. The research design can be described as follows:

![Figure 1. Research Design](image)

**Population and Sample**

The population used is the restaurant, hotel, tourism, and transportation sub-sector companies listed on the Indonesia Stock Exchange (IDX) from 2013 to 2019, totaling 78 companies. From the total population, the sample is then determined.
Determination of the sample using purposive sampling technique with the following criteria:

4) The Company has financial statement data that supports the formulas used.
5) The annual report uses the rupiah currency.

Companies that meet the sampling criteria are 21 companies with 147 financial statement data (12 x 7 years). However, because there are outlier data, the number of observation data is reduced to 80. The details of determining the research sample are as follows:

Table 1. Sampling Technique

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant, Hotel, Tourism, and Transportation Sub-Sector Companies on the Indonesia Stock Exchange (IDX) 2013-2019.</td>
<td>78</td>
</tr>
<tr>
<td>Companies that do not publish annual financial reports on the IDX for the 2013-2019 period in a row.</td>
<td>(30)</td>
</tr>
<tr>
<td>Companies that do not have complete financial statement data during 2013-2019.</td>
<td>(10)</td>
</tr>
<tr>
<td>Companies that do not have financial statement data that support the formula used.</td>
<td>(8)</td>
</tr>
<tr>
<td>Annual reports that do not use rupiah currency.</td>
<td>(9)</td>
</tr>
<tr>
<td>Total company data for 2013-2019</td>
<td>21</td>
</tr>
<tr>
<td>Total financial report data for 2013-2019 (21 x 7 years)</td>
<td>147</td>
</tr>
<tr>
<td>Data Outlier</td>
<td>67</td>
</tr>
<tr>
<td>Total observation data for 2013-2019</td>
<td>80</td>
</tr>
</tbody>
</table>

Sources: author’s calculation, 2021

Techniques of Data Collection

The study uses secondary data. The secondary data is the data on the Annual Reports of Companies in the Restaurant, Hotel, Tourism, and Transportation Sub-Sectors Listed on the Indonesia Stock Exchange (IDX) 2014-2019. The data source is
from the website www.IDX.co.id

Analysis

The variables consisted of firm size as an independent variable, tax aggressiveness as the dependent variable, and earnings management as a moderating variable. The authors used descriptive statistics to determine the minimum, maximum, and standard deviation values. The authors used Moderate Regression Analysis to analyze the data. However, before that, the researchers conducted a prerequisite test for classical assumptions, which included tests for normality, multicollinearity, autocorrelation, and heteroscedasticity. The equation for regression analysis is:

\[ Y = a + bX + e \] \hspace{1cm} (1)

Information:
- \( Y \) = tax aggressiveness
- \( a \) = constant
- \( b \) = Regression coefficient
- \( X \) = Firm Size
- \( e \) = error

While the equation for Moderated Regression Analysis (MRA) is:

\[ Y = a + b_1X_1 + b_2Z + e \] \hspace{1cm} (2)
\[ Y = a + b_1X_1 + b_2Z + b_3X_1\cdot Z \] \hspace{1cm} (3)

Information:
- \( Y \) = tax aggressiveness
- \( a \) = constant
- \( X_1 \) = Firm Size
- \( Z \) = Earnings Management
- \( X_1\cdot Z \) = interaction variable (moderating variable)
- \( b_1, b_2, b_3 \) = Regression coefficient
- \( e \) = error

Result and Discussion

Coefficient of Determination Test (R²)
The coefficient of determination (R²) measures how much the model's ability to explain variations in the dependent variable is. A small value (R²) means the limited ability of the independent variable to explain the dependent variable. The value closest to one means that the independent variable provides the information needed to predict the variation of the dependent variable. The R Square value is often biased, so the researcher uses the adjusted R Square value. Table 2 shows the Adjusted R Square values.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.603³</td>
<td>0.364</td>
<td>0.332</td>
</tr>
</tbody>
</table>

Sources: author’s calculation, 2021

The value of the coefficient of determination (Adjusted R Square) is 0.332. So it can be explained that the independent variables, namely Company Size, and Earnings Management, can affect the dependent variable of aggressiveness by 33.2%. Variables outside the study influence the remaining 66.8%.

Hypothesis Test

The t statistic test aims to test the independent influence variable on the dependent variable partially. The test results are as shown in table 3:

<table>
<thead>
<tr>
<th>Model</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.307</td>
<td>0.196</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Size</td>
<td>-1.191</td>
<td>0.238</td>
</tr>
</tbody>
</table>

Sources: author’s calculation, 2021

The results in table 3 can be interpreted as follows: the firm size variable has an Account value of -1.191 and a Table of 1.994, so the Account value is less than the Table. The significance value is 0.238, where the value is above 0.05. It shows that the size of the Company does not affect tax aggressiveness. Thus H1 is rejected.

Hypothesis 1 the sound of company size affects tax aggressiveness. The results of the t-test prove that the firm size variable does not affect tax aggressiveness. In conclusion, H1 is rejected. Company size is a scale to distinguish a group of companies into large groups of companies and groups of small companies. The assets
owned by the Company can be an indicator of the size of the Company. Companies with significant assets can be classified as large companies. Large companies with large totals will be easy to pay for their tax assets so that companies will not do tax aggressiveness. The study results are in line with research conducted by Goh et al., (2019); Warih, (2019); Lestari & Badingatus, (2019); Sonia & Haryo, (2019); Prabowo, (2020); Kusumah et al., (2021); Asih & Deni, (2022) that firm size does not affect tax aggressiveness. This research is contrary to research by Yahaya & Yusuf, (2020); Susanti, (2017); Adegbite & Mustapha, (2020); Kasim & Natrah, (2019); Sarpingah, (2020).

The results of the t-statistical test for equation 4 are as follows:

Tabel 4. Statistical t-test (Equation 2)

<table>
<thead>
<tr>
<th>Model</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.741</td>
<td>0.462</td>
</tr>
<tr>
<td>1 Firm Size</td>
<td>-0.679</td>
<td>0.500</td>
</tr>
<tr>
<td>Earnings Management</td>
<td>0.177</td>
<td>0.860</td>
</tr>
</tbody>
</table>

Sources: author’s calculation, 2021

The table above shows that the earnings management variable has t-count value of 0.177 and t-table of 1.994, so the t-count value is smaller than t-table. The significance value is 0.860 > 0.05. It means that earnings management does not affect tax aggressiveness or the independent variable of earnings management.

Moderate Regression Analysis (MRA) Test

Moderated Regression Analysis (MRA) maintains its integrity and provides a basis for controlling for moderating influence variables using an analytical approach. Here are the results of the MRA test.

Table 5. Moderate Regression Analysis Test Results (Equation 3)

<table>
<thead>
<tr>
<th>Model</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.438</td>
<td>0.155</td>
</tr>
<tr>
<td>Firm Size</td>
<td>-1.420</td>
<td>0.160</td>
</tr>
<tr>
<td>Earnings Management</td>
<td>2.073</td>
<td>0.042</td>
</tr>
<tr>
<td>FirmSize*earnings management</td>
<td>-2.015</td>
<td>0.048</td>
</tr>
</tbody>
</table>

Sources: author’s calculation, 2021
The interpretation of the results presented in table 5: The t-value for the interaction variable of firm size * earnings management (as moderating) is -2.015, and the t-table is 1.994. T-count is greater than T-table. The significance value is 0.048, where the value is below (<) 0.05, which means that earnings management has a moderating role in the effect of firm size on tax aggressiveness. In conclusion, **H2 is accepted**. The type of moderation is pure moderation because the pure moderating variable interacts with the independent variable but is not proven to be the independent variable.

Moderated Regression Analysis (MRA) results show that earnings management can moderate the effect of firm size on tax aggressiveness. Earnings management strengthens the effect of firm size on tax aggressiveness. Large companies tend to be able to earn high profits. So large companies carry out more financial transactions than small companies. Therefore, large companies have many possibilities to be more aggressive in carrying out earnings management to reduce the tax burden. The Company will choose an accounting method that will reduce its revenue.

**Conclusion**

Our study examines the effect of firm size on tax aggressiveness with earnings management as a moderating variable. Based on the results of research and discussion, it can be concluded that company size does not affect tax aggressiveness. The assets owned by the Company are related to the size of the Company. A large nominal assets indicate the size of the company. Companies that produce a lot of total assets will find it easier to carry out their tax obligations so that companies will not carry out tax aggressiveness.

Furthermore, earnings management can moderate the effect of firm size on tax aggressiveness. Large companies carry out more financial transactions than small companies. Large companies will find it easier to generate assets. Large companies are more aggressive in managing profits to reduce taxes by using accounting methods that will reduce their income.

Suggestions that can be put forward for companies are that companies are expected to consider more factors that affect tax aggressiveness. For listed companies, the results of our study are expected to add insight into the factors that affect tax aggressiveness and can be used as a reference in future decision-making. The authors hope that the Company can reduce the potential for tax aggressiveness so that the state does not suffer losses. Reducing the potential for tax aggressiveness aims to improve financial performance following reality so that it can attract investors to invest in the Company.

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We would like to thank Puji Nurhayati for comments and discussions regarding taxation in manufacturing companies. We also would like to thank Moh. Ubaidillah, Anny Widiasmara, and M Agus Sudrajat for their support and encouragement. This research was conducted with Program Kompetisi Kampus Merdeka (PKKM) grant funds in 2021.

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