Does Environmental Cost and Tax Aggressiveness Affect Mining Firm Value?

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Abstract

Environmental problems caused by companies still occur in various countries. The environment that should be protected is still being ignored by surrounding companies. Even though it is clear in Indonesian Law, UU No. 40 2007 that all companies especially who are directly related to nature, are required to carry out environmental responsibility. Mining companies are companies whose business activities are directly related to nature, so the mining sector is obliged to carry out this responsibility. Environmental cost are cost incurred to environmental damage and environmental protection from company activities. The environmental cost will affect the good image of the company which will affect the firm value. Environmental cost are cost incurred to environmental damage and environmental protection from company activities. The environmental cost will affect the good image of the company which will affect the firm value. Environmental cost are cost incurred to environmental damage and environmental protection from company activities. The environmental cost will affect the good image of the company which will affect the firm value. Tax aggressiveness is an act of tax avoidance which is conducted aggressively and it’s also affect the firm value, these must be considered because the value of the company is one of the important information for stakeholders. The purpose of this research is to determine the effect of environmental cost and tax aggressiveness on firm value. The sample method used in this research is purposive sampling and obtained 80 financial statements from 20 mining companies listed on the Indonesian stock exchange for the 2018-2021 period. Based on the results of the research, partially that environmental cost have a significant positive effect on firm value, tax aggressiveness has no significant effect on firm value and simultaneously environmental cost and tax aggressiveness affect the value of mining companies listed on the Indonesian stock exchange for the 2018-2021 period.

Keywords: Environmental Cost, Tax Aggressiveness, Firm Value, Mining Companies

1. Introduction

The environment that should be protected is still being ignored by surrounding companies. Even though it is clear in Indonesian Law, UU No. 40 2007 that all companies especially who are directly related to nature, are required to carry out environmental responsibility. Mining companies are companies whose business activities are directly related to nature, so the mining sector is obliged to carry out this responsibility. Environmental cost are cost incurred to environmental damage and environmental protection from company activities. The environmental cost will affect the good image of the company which will affect the firm value. According to Fitriyani (2016) mining activities have environmental, social and economic impacts. Environmental impacts are caused by damage to ecosystems from mining activities, this has an impact on environmental damage such as landscape changes, decreased soil fertility, threats to biodiversity, decreased water quality, and environmental pollution caused by waste from mining activities that can enter agricultural land. According to Fitriyani (2016) the social impacts of mining activities that will occur are conflicts with surrounding communities caused by environmental pollution, decreased air quality due to dust produced from mining, changes in the social structure of society, and changes in the mindset of the surrounding community. Meanwhile, the economic impact on the welfare of the community in the mining area in general will increase because the existence of the company it has been able to encourage and move the joints of the community’s economy.

Ideally, a company has a cost heading that regulates the environment, which is referred to as environmental costs. Geovani and Sopian (2021) say that environmental costs can be grouped into 4 categories, prevention costs, detection costs, internal failure costs, and external failure costs. Disclosure of environmental information is valuable information for stakeholders because it indicates that the company has allocated costs to maintain environmental sustainability which will have an impact on business sustainability. Information on environmental management must be submitted by a public company through OJK Regulation Number 29/POJK.04/2016 concerning the Annual Report
of Issuers or Public Companies. The regulation states that one of the information that must be included in the Annual Report is the social and environmental responsibility of the Issuer or Public Company (Geovani & Sopian, 2021).

Based on the explanation, it can be concluded that corporate responsibility, which originally focused on economic indicators in financial reports, has now shifted and taken into account more social factors towards stakeholders, both internal and external (Hamdani, 2016). To ensure the survival of the company, it is very dependent on the support of stakeholders. The more support from stakeholders, the greater the company's ability to adapt to the environment so that mining companies that carry out CSR and pay attention to stakeholders will be increasingly recognized for their existence (legitimacy). Legitimacy obtained from stakeholders give benefit to the company because it will increase good image for the company which will affect to the firm value.

From a taxation perspective, especially the Income Tax Law No. 36 of 2008, there are environmental costs that can be used as deductible expenses, so these costs can be recognized taxally when calculating corporate income tax. This can be proven by the existence of Government Regulation number 93 of 2010 which explains that national disaster donations, donations for research and development, donations for sports coaching, and social infrastructure development costs can be recognized as expenses in taxation, in addition to Article 6 of the Law Tax Law Number 36 of 2008 also states that environmental costs can be recognized as a tax expenses. This is can be an advantage for companies, because it can be tax planning, but they often take the advantage of this loophole to avoid taxes aggressively. This is contrary to the government's goal of collecting taxes from the public according to what has been targeted.

2. Literature Review

2.1 Legitimacy Theory

According to O'Donovan (2002) Legitimacy means that organizations/companies continuously ensure whether they have operated within the norms upheld by society and ensure that their activities can be accepted by outsiders (legitimized), meanwhile Hamdani (2016) reveals legitimacy theory's definition as a condition, or status, that exists when a firm's value system aligns with the value system of the larger social system of firm is a part. Legitimacy and Environmental Cost are related to each other. When the level of the Company's Environmental Cost is higher, the legitimacy obtained from stakeholders is higher. Increased legitimacy will affect the firm's value.

2.2 Stakeholder Theory

Freeman (2010) said that the stakeholder concept was originally defined as those groups without whose support the organization would cease to exist. The list of stakeholders originally included shareowners, employees, customers, suppliers, lenders and society. From the explanation above it can be concluded that stakeholder theory is a theory that explains a group or individual who can influence and be influenced by other groups/individuals.

The relationship between stakeholder theory and tax avoidance is the companies are not only responsible to shareholders but must be responsible to stakeholders. Because the government is also a stakeholder, the company must be responsible to the government, one of which is by paying taxes properly, both on time, in the right amount and reporting. In addition, stakeholder theory also explains that stakeholders can influence the survival of the company, so that if the company does aggressive tax avoidance, the government will not provide support to the company to carry out its activities in that country and this will have an impact on the value of the company.

2.3 Environmental Cost

Environmental Accounting Guidelines infers environmental costs as environmental conservation costs that include expenditures aimed to invest on assets for improving the quality of environment and costs allocated for prevention, mitigation and define methods for reducing environmental impacts, such as disaster recovery, environmental restoration, and other activities. Therefore, total environmental conservation cost is the sum of expenses incurred for environmental conservation purposes. Total cost includes the cost of depreciation of the asset. The guideline classifies environmental conservation costs into seven categories based on its business activities, i.e. business area costs, upstream/downstream costs, administration costs, research & development costs, social activity costs, environmental remediation and other costs. (Nila Firdausi, 2018). Environmental cost in this study is proxied by a dummy variable. if the financial report contains environmental costs then it is given a score of 1 and if not then it is given a score of 0

2.4 Tax Aggressiveness

As profit-oriented companies, domestic companies and multinational companies will try to minimize the tax paid. According to Darussalam (2010) the tax paid can be minimized through Tax Planning, Tax Avoidance and Tax Evasion. The three ways are as follows:
a. Tax planning, the method used by taxpayers to minimize the tax owed through a scheme that is clearly regulated in the tax law and does not cause disputes between the tax subject and the tax authority.
b. Tax Avoidance, transactions for minimizing the tax paid by exploiting loopholes in a country’s tax provisions
c. Tax Evasion, a scheme to minimize the tax payable by violating tax provisions such as not reporting some sales or increasing costs in a fictitious way.

Tax aggressiveness in this Research is proxied by ETR, by dividing the tax expense in the income statement by the amount of profit before tax

3. Materials and Methods

3.1 Materials

The type of data used in this research is secondary data in the form of financial statements and annual reports of mining companies taken from the IDX website. The population in this research are mining companies listed on the stock exchange for the 2018-2021 period. The sample method used in this research was purposive sampling and it obtained 80 financial reports from 20 mining companies listed on the Indonesia Stock Exchange for the 2018-2021 period.

3.2 Methods

This research use panel data which is a combination of time-series data and cross-sectional data. The method used in this research is quantitative descriptive and the researcher uses the Eviews tool for statistical use. The stages used include:
1. Classic assumption test consisting of Normality, Heteroscedasticity, multicollinearity and autocorrelation tests.
2. Estimation of the regression model consisting of the Chow test and the Hausman test
3. The coefficient of determination is to measure how much the independent variable contributes to the dependent variable
4. Hypothesis testing consisting of the t test and F test

4. Results and Discussion

4.1 Classic Assumption Test

4.1.1 Normality Test

Based on the results of the normality test, it is known that the jarque bera’s value is 4.357900 which is greater than 0.05, it can be concluded that in this research the data used is normal.

4.1.2 Multicollinearity Test

Table 1: Multicollinearity Test

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>1.000000</td>
<td>0.407823</td>
</tr>
<tr>
<td>X2</td>
<td>0.407823</td>
<td>1.000000</td>
</tr>
</tbody>
</table>
From the results of the multicollinearity test it can be concluded that the regression model to be formed is free from multicollinearity, because the two independent variables have a correlation value of less than 10.

### 4.1.3 Autocorrelation Test

Table 2: Autocorrelation Test

<table>
<thead>
<tr>
<th>Breusch-Godfrey Serial Correlation LM Test:</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
</tr>
<tr>
<td>Obs*R-squared</td>
</tr>
</tbody>
</table>

Based on table 4.2 it can be seen that the prob. value is 0.1274 > 0.05 which indicates that the data used is free from autocorrelation problems, so that the model meets one of the assumptions that is subjected to regression testing.

### 4.2 Regression Model Estimation

#### 4.2.1 Chow Test

Table 3: Chow Test

<table>
<thead>
<tr>
<th>Redundant Fixed Effects Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pool: EMITEM</td>
</tr>
<tr>
<td>Test cross-section fixed effects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effects Test</th>
<th>Statistic</th>
<th>d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>1.213691</td>
<td>(19,58)</td>
<td>0.2790</td>
</tr>
<tr>
<td>Cross-section Chi-square</td>
<td>26.779865</td>
<td>19</td>
<td>0.1099</td>
</tr>
</tbody>
</table>

Based on the results of the Chow Test, the prob value was obtained. The Cross Section Chi-square is 0.1099 higher than the 5% significance level and the prob value. cross-section F of 0.2790 is greater than the 5% significance level, so is in accordance with the provisions of this study using the Common Effect model.

#### 4.2.2 Hausman test

Table 4: Hausman Test

<table>
<thead>
<tr>
<th>Correlated Random Effects - Hausman Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pool: EMITEM</td>
</tr>
<tr>
<td>Test cross-section random effects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>7.747874</td>
<td>2</td>
<td>0.0208</td>
</tr>
</tbody>
</table>

In the table above, it is known that the Prob. Chi-Sq obtained was 0.0208 < 0.05 so the decision of the Hausman test that the fixed effect model was the right choice for model estimation in this Research.

### 4.3 Hypothesis test

Table 5: Panel Data Regression With Fixed Effect Model

<table>
<thead>
<tr>
<th>Dependent Variable: Firms Value?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: Pooled Least Squares</td>
</tr>
<tr>
<td>Date: 10/28/22  Time: 22:49</td>
</tr>
<tr>
<td>Sample: 14</td>
</tr>
<tr>
<td>Included observations: 4</td>
</tr>
<tr>
<td>Cross-sections included: 20</td>
</tr>
<tr>
<td>Total pool (balanced) observations: 80</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
</table>

In the table above, it is known that the Prob. Chi-Sq obtained was 0.0208 < 0.05 so the decision of the Hausman test that the fixed effect model was the right choice for model estimation in this Research.
4.3.2 **t Test**

a. Based on the results of the research in table 4.5, it can be seen that the probability obtained for the environmental cost variable is 0.0005 < 0.05, this shows that the environmental cost partially influences the value of mining companies. A positive value indicates a positive relationship between environmental costs and company value, which means that the higher the environmental cost the company has, the higher the company value owned by a mining company listed on the Indonesian stock exchange.

b. Based on the research results in table 4.5 it is known that Tax Aggressiveness has a probability 0.2804 > 0.05, this shows that partially the Tax Aggressiveness variable has no effect on firm value.

4.3.3 **F Test**

Based on table 4.5, it can be seen that the value of the f statistic is 0.001956 < 0.05, this shows that together environmental costs and tax aggressiveness affect the value of mining companies listed on the stock exchange for the 2018-2021 period.

4.3.3 **The coefficient of determination**

Based on the results of the research above, it can be seen that the coefficient of determination R Square is 30.20%, this shows that partially environmental cost and tax aggressiveness have an influence contribution of 30.20% and the rest is contribution from other variables not explained in this study.

4.4 **Discussion**

4.4.1 **The Effect of Environmental Cost on Firm Value**

Based on the results of research that environmental costs have a significant positive effect on the value of mining companies listed on the Indonesian stock exchange for the 2018-2021 period, this is indicated by a probability value of 0.0005 < 0.05. O'Donovan (2002) Legitimacy means that organizations/companies must continuously ensure whether they have operated within the norms upheld by society and ensure that their activities can be accepted by outsiders (legitimized), therefore Legitimacy and Environmental Cost are mutually exclusive related to each other. When the level of the Company's Environmental Cost is higher, the legitimacy that obtained from stakeholders is higher. Increased legitimacy will affect the value of the company.

4.4.2 **The effect Of Tax Aggressiveness to Firm Value**

Based on the research results, it can be concluded that tax aggressiveness does not have a significant effect on the value of mining companies, this is evidenced by the probability value of 0.2804 > 0.05. This is contrary to the stakeholder theory which states that the higher a company carries out tax avoidance aggressively, this will worsen the company's image and will affect the company's value. Mining companies in Indonesia, especially coal companies have coal mining work contract agreements or known as PKP2B. This agreement is an agreement between mining entrepreneurs in Indonesia with legal entities and the government to carry out coal mining business activities. In this contract, the corporate income tax rate is not always 25% so that if there is a company that pays less than 25% tax it cannot be said that it is carrying out tax avoidance aggressively, so this might lead to the results of the research on the variable Tax Aggressiveness not having an effect on company value.

4.4.3 **The Effect of Environmental Cost and Tax Aggressiveness to Firm Value**

Based on the research results, it can be seen that the value of the F statistic is 0.001956 < 0.05, this shows that together environmental costs and tax aggression affect the value of mining companies listed on the stock exchange for the 2018-2021 period.
5. Conclusion

Based on the research results, it can be concluded that:

1. Environmental costs have a positive effect on the Value of Mining Companies listed on the Indonesian stock exchange for the 2018-2021 period
2. Tax Aggressiveness has no effect on the value of mining companies listed on the Indonesian stock exchange for the 2018-2021 period
3. Simultaneously it can be concluded that environmental costs and tax aggressiveness affect the value of mining companies listed on the Indonesian stock exchange for the 2018-2021 period.

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