THE EFFECT OF SIZE AND PUBLIC OWNERSHIP ON SOCIAL RESPONSIBILITY DISCLOSURE OF MINING FIRMS LISTED ON INDONESIA STOCK EXCHANGE

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ABSTRACT

The mining firms always explore natural resources from the earth. After exploration, the natural and social environment around them will be destroyed and disturbed, respectively; therefore, these firms are required to be responsible for what they do. As compensation, they must execute the social responsibility activities and inform them through the annual reports and the other media. The purpose of this study is to test and analyze the effect of firm size and public ownership on social responsibility disclosure. The population of this study is the mining firms listed on the stock exchange of Indonesia. The firms as sample are picked up from the population by the method of simple random sampling. The regression with pooled data is utilized as the method of analyzing data. The result of this study concludes that firm size and public ownership have a positive effect on social responsibility disclosure.

Keywords: social responsibility disclosure, firm size, public ownership.

INTRODUCTION

A constricted struggle in the market makes firms use ways to obtain high earnings and reduce expenses without attention to the social issues: the employees’ health, the social condition, the environmental pollution resulted by the waste of production, and the environmental safety. Therefore, society needs firm attention to handle them (Lie-Sha, 2014). From the society point of view, the social responsibility-related activities of firms are the answer to these issues (Daniri, 2008 in Badjuri, 2011).

The social responsibility disclosure becomes one of the interesting research topics in some countries in Asia. For Southeast Asia, the intended countries are Indonesia (Nur & Priantinah, 2012; Yulfaida & Zhulaikha, 2012; Lie-Sha, 2014; Abdulhaq & Muhamed, 2015; Indraswari & Astika, 2015; Barnas, Habbash, & Yudowati, 2016; Habbash, 2016; Rofiqoh & Priyadi, 2016; Panggabean & Tandiontong, 2017; Putri, Zulbahridar & Kurnia, 2017), Malaysia (Amran & Devi, 2008; Rahman, Zain, & Al-Haj, 2011). For East Asia and South Asia, the intended countries are China (Zhang, Wang, & Fang, 2014) and Pakistan (Lone, Ali, & Khan, 2016), separately. For Western Asia, the intended countries are the Kingdom of Saudi Arabia (Abdulhaq & Muhamed, 2015; Habbash, 2016) and Jordan (Nawaiseh, Alsobo, & El-Shohmah, 2015).

The mining is one of the sectors in Indonesia Stock Exchange (Hartono, 2017). The firms in this sector tend to explore and use the natural resources that cannot be replenished (Rachman, Efendi & Wicaksana, 2011). As a consequence, the firms have to perform the activities related to social responsibility, as required by Limited Liability Company Law of the Republic of Indonesia Number 40/Year 2007 (Badjuri, 2011; Yulfaida & Zhulaikha, 2012). Furthermore, the firms can publish these activities through their annual reports (Indraswari & Astika, 2015; Panggabean & Tandiontong, 2017), website (Nur & Priantinah, 2012), and social media (Supriadi, 2013).

Firm action to publish the social responsibility disclosure, indeed, gets a significant positive response from the market (see the study result of Yuliana, Purnomosidhi & Sukoharsono, 2008; Cheng & Christiawan, 2011; Zhang, et al, 2014). This response shows that public investors consider this disclosure to make the decision of transacting stocks (Yulfaida & Zhulaikha, 2012).

Based on previous study results, this disclosure is affected by firm size (see Nur & Priantinah, 2012; Yulfaida & Zhulaikha, 2012; Lie-Sha, 2014; Abdulhaq & Muhamed, 2015; Indraswari & Astika, 2015; Barnas, et al, 2016; Habbash, 2016; Rofiqoh & Priyadi, 2016; Lone et al., 2016; Panggabean & Tandiontong, 2017; Putri, et al., 2017) and public ownership (see Sriayu & Mimba, 2013; Indraswari & Astika, 2015; Rahmayanty et al., 2015; Putri et al., 2017).

Although these results of some studies related to the determinants of social responsibility disclosure show the existence of the effect, the effect shown is still not consistent.

For firm public ownership, a positive effect of this ownership on social responsibility disclosure is confirmed by the study of Sriayu & Mimba (2013), Rahmayanty et al. (2015), and Putri et al. (2017). On the contrary, a negative effect of this ownership on this disclosure is confirmed by the study of Indraswari & Astika (2015).

Based on these dissimilar results mentioned above, this study is conducted on the firms in the mining industry listed on the stock exchange of Indonesia. The purpose to test and analyze the effect of firm size and public ownership on social responsibility disclosure.

THEORETICAL FRAMEWORK AND THE DEVELOPMENT OF HYPOTHESES

This section explains the causal relationship between firm size and social responsibility disclosure (see part a) and public ownership and social responsibility disclosure (see part b).

a. The effect of firm size on social responsibility disclosure

The theory of political cost explains that a big firm is the focus of political pressure. The big firm tends to be distrusted to exclusively keep its business itself in the market (Watts & Zimmerman, 1978). To avoid this perception, this firm tends to execute some activities related to social responsibility and reveal them on their annual reports (Indraswari & Astika, 2015; Panggabean & Tandiontong, 2017) and internet-based media (Nur & Priantinah, 2012; Supriadji, 2013). This argument is supported by the result of the study conducted by Amran & Devi (2008), Rahman, et al. (2011), Nur & Priantinah (2012), Yulfaida & Zhulaikhah (2012), Lie-Sha (2014), Abdulhaq & Muhamed (2015), Indraswari & Astika (2015), Indraswari & Astika (2015), Barbaks et al. (2016), Habbash (2016), Lone et al. (2015), Robiqoh & Priyadi (2016), and Putri et al. (2017) successfully proving that firms with big size tend to disclose their social responsibility. Based on this explanation and the evidence of previous studies, the first hypothesis can be expressed as follows.

H1: Firms size has a positive effect on social responsibility disclosure.

b. The effect of public ownership on social responsibility disclosure

The firms listed on the capital market must be owning the portion of public investors (Sugiarto, 2009) because of the initial public offering conducted (Sunariyah, 2004). The firms with large public ownership are reliable in the view of society so that they tend to keep their business going and to widely disclose social information (Badjuri, 2012 in Oktariani, 2013). This argument is also confirmed by the study of Sriayu & Mimba (2013), Rahmayanty et al. (2015), and Putri et al. (2017) effectively verifying the firms with a high portion of public ownership tend to disclose their social responsibility. Based on this explanation and the evidence of previous studies, the second hypothesis can be expressed as follows.

H2: Public ownership has a positive effect on social responsibility disclosure.

RESEARCH METHOD

This section describes the type of research (see part a), the definition of variables (see part b), population and sample (see part c), and the method of data analysis (see part d).

a. The type of research

The type of this research is classified as a quantitative study. According to Sugiyono, (2012), this study definitely examines the hypotheses set in advance.

b. The definition of variables

A disclosure of firm social responsibility has a position as the dependent variable. The disclosure consists of six aspects: economy, living environment, labor practice and workplace, human rights, society, and product (Sari, 2014). This is measured by the available number of aspect in each firm divided by the six required aspects at the end of the year. On the other hand, firm size and public ownership have a position as the independent variable. This firm size is measured by the natural logarithm of total assets at the end of the year. This measurement refers to Yulfaida & Zhulaikhah (2012), Lie-Sha (2014), Abdulhaq & Muhamed (2015), Habbash (2016), Robiqoh & Priyadi (2016), Lone et al. (2015), and Putri et al. (2017). Meanwhile, public ownership is measured by shares of public investors divided by total shares in the firm at the end of the year. This measurement refers to Sriayu & Mimba (2013), Rahmayanty et al. (2015), and Putri et al. (2017).

c. Population and sample

The members of the population are the firms in the mining sector on Indonesia stock exchange between 2012 and 2016. The consistency of available firms is needed to calculate the number of relevant population members. By observing the available data, there are 28 firms found as the number of relevant population member. To get the number of the sample (n) representing the population (N), the formula of Slovin is used (see Suliyanto, 2009). Furthermore, the formula of Slovin can be obtained in equation one as follows.

\[ n = \frac{N}{1 + Ne^2} \]  
\[ \approx \frac{28}{1 + 28(0.10)(0.10)} = 21.88 \approx 22 \text{ firms (rounded)} \]

By using sampling error (e) of 10%, the number of samples is obtained as follows. (1) Adaro Energy Tbk. (ADRO), (2) Aneka Tambang (Persero) Tbk. (ANTM), (3)

d. **The method of data analysis**

The data of the mining firms related to the variables are analyzed by the regression model with pooled data. This regression model joins cross-sectional and time-series data and applies the ordinary least square (OLS) as the method of estimation (Nachrowi & Usman, 2004). Hence, tests related to classical assumption, such as normality, heteroscedasticity, autocorrelation, and multicollinearity, are needed to be performed (Ghozali, 2016). The regression model with pooled data intended, moreover, can be located in equation two as follows.

\[
CSR_D = \beta_0 + \beta_1 \text{LOG(TA)}_it + \beta_2 \text{PO}_it + \varepsilon_{1it} \]

(Equation 2)

**RESULTS AND DISCUSSION**

This section displays the results of classical assumptions (see part a), the estimation result of the regression model (see part b), the result of testing hypotheses (see part c), discussion (see part d), managerial implication (see part e).

a. **The test results of classical assumptions**

In this part, information about the required condition of classical assumption tests and their results are displayed as follows. Firstly, the errors of the regression model have to be normally distributed. To give this evidence, the Jarque-Bera (JB) test is used. These errors are normally distributed if the probability value of the JB statistic is the same as or higher than the significance level of 5%. Moreover, the result of the normality test can be found in figure one. In this figure, the probability value of the JB statistic is 0.254448. Therefore, errors are normally distributed.

![Figure 1. The result of the normality test](image)

Secondly, the regression model does not contain the heteroscedasticity problem. To give this evidence, the White test is performed. This problem does not occur when all of the squared independent variables do not have an effect on squared errors. The absence of effect happens when the probability value of t-statistic of all squared independent variable is higher than the significance value of 5%. Additionally, the result of heteroscedasticity can be found in Table 1. In this table, the probability value of t-statistic for \(\text{LOG(TA)}^2\) and \(\text{PO}^2\) is 0.3141 and 0.2480, respectively. Because these probability values are higher than 5%, the heteroscedasticity problem does not occur in this regression model.
Table 1. The result of the White heteroscedasticity test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.019118</td>
<td>0.024380</td>
<td>0.784194</td>
<td>0.4347</td>
</tr>
<tr>
<td>LOG(TA)^2</td>
<td>0.000101</td>
<td>0.000100</td>
<td>1.011347</td>
<td>0.3141</td>
</tr>
<tr>
<td>PO^2</td>
<td>-4.78E-06</td>
<td>4.12E-06</td>
<td>-1.161667</td>
<td>0.2480</td>
</tr>
</tbody>
</table>

Source: Modified output of E-Views 6.

Thirdly, the regression model does not contain the autocorrelation problem. To give this evidence, the test of runs of errors based on mode is conducted. This problem does not occur when the errors are random. The randomness of the errors occurs when asymptotic significance (Asymp. Sig.) value of Z-statistic is higher than significance level value of 5%. Then, the result of this test can be found in Table 2. In this table, Asymp. Sig. (2-tailed) value is 0.892. Because this value is higher than 5%, the autocorrelation is not present in this regression model.

Table 2. The test result of runs

<table>
<thead>
<tr>
<th>Unstandardized Residual</th>
<th>Test Valuea</th>
<th>.41302b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases &lt; Test Value</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>Cases &gt;= Test Value</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Cases</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>Number of Runs</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>.136</td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.892</td>
<td></td>
</tr>
</tbody>
</table>

Source: Output of IBM SPSS 19.

Finally, the regression model does not have a multicollinearity problem. This problem exists when a strong correlation between two independent variables happens. This problem does not exist in the regression model when the variance inflation factor (VIF) of each independent variable used is lower than 10 (Ghozali, 2016). Furthermore, the result of multicollinearity detection can be found in Table 4. In this table, the value of the VIF for LOG(TA) and PO is 1.018 and 1.018. It indicates the multicollinearity is not available because these two values of VIF are lower than 10.

Table 4. The result of multicollinearity detection

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>LOG(TA)</td>
<td>.982</td>
</tr>
<tr>
<td>PO</td>
<td>.982</td>
</tr>
</tbody>
</table>

Source: Output of IBM SPSS 19.

b. The estimation result of the regression model

After all test results of classical assumptions are completely fulfilled, estimating the regression model with pooled data needs to be executed. Besides, the result of this regression model can be found in Table 5.

Table 5. The result of the regression model estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.115582</td>
<td>0.218561</td>
<td>0.528831</td>
<td>0.5980</td>
</tr>
<tr>
<td>LOG(TA)</td>
<td>0.027903</td>
<td>0.013900</td>
<td>2.007433</td>
<td>0.0472</td>
</tr>
<tr>
<td>PO</td>
<td>0.004157</td>
<td>0.001185</td>
<td>3.506423</td>
<td>0.0007</td>
</tr>
</tbody>
</table>

Source: Modified output of E-Views 6.
The result of testing hypotheses

To prove the truth of two research hypotheses, the t-test is used. This test is done by the comparison between the probability value of t-statistic of each regression coefficient and the significance value of 5%. If the probability value is lower than the significant value used, the alternative hypothesis is accepted.

The first hypothesis states firm size has a positive effect on social responsibility disclosure. It can be found in Table 5, the probability value of t-statistic of regression coefficient of LOG(TA) is 0.0472. Because this value is lower than the significance value used, the alternative hypothesis states firm size has a positive effect on social responsibility is not rejected.

The second hypothesis states public ownership has a positive effect on social responsibility disclosure. It can be found in Table 5, the probability value of t-statistic of regression coefficient of PO is 0.0007. Because this value is lower than the significance value used, the alternative hypothesis states public ownership has a positive effect on social responsibility is not rejected.

d. Discussion


From the test result of the second hypothesis, public ownership has a positive effect on social responsibility disclosure. It means firms tend to do their duty to fulfill the right to the public; therefore, the public knows what their activities related to social responsibility disclosure. Based on this evidence, this study supports the result of the study of Sriayu & Mimba (2013), Rahmayanty et al. (2015), and Putri et al. (2017).

e. Managerial Implication

Based on the discussion section, there are two managerial implications that can be resulted. Firstly, the big firms are expected to disclose their social responsibility to overcome the monopoly issue in the market. Secondly, to choose and get the mining firms with good social responsibility disclosure, investors should buy the stocks of the firms having large size and portion of public ownership.

CONCLUSION AND RECOMMENDATION

The purpose of this study is to test and analyze the effect of firm size and public ownership on social responsibility disclosure. After analyzing the data and discussing the results, this study sums up that the firms having large size and public ownership incline to disclose their social responsibility.

This study has two limitations. Firstly, this study only uses the mining firms as the population; therefore, the scope of its generalization becomes narrower. This issue can be overcome by the next researchers by enlarging the scope of this study; for example, using all firms in a primary sector consisting of mining and agricultural firms.

Secondly, this study only uses two determinants of firm social responsibility disclosure. This issue can be solved by the next researchers by adding the other determinants, such as the gender, size, and independence of the supervisory board in their research model.

REFERENCES


