Determinants of Corporate Social Responsibility Disclosure: Panel Data Analysis

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ABSTRACT: A common objective of companies is to maximize company profits. In line with current times, many companies are changing this objective towards ensuring business continuity in terms of the 3P concept: profit, planet people. Promoting Corporate Social Responsibility (CSR) activities is one way of prolonging the company's existence. The Environmental Ministry of Indonesia has supported the launch of PROPER Program (Performance Rating in Environmental Management). The purpose of this study is to analyze the effect of firm size, profitability, leverage and firm age on the disclosure of corporate social responsibility. The sample consists of five PROPER companies listed on the Jakarta Stock Exchange in the period 2010-2015. Panel data regression is adopted as the estimation method. Estimation and test results conducted on the panel data regression model show that the model panel data regression with random effect is approriate. The regression results indicate that the age of the firm, leverage and firm size affect the disclosure of corporate social responsibility.

1 INTRODUCTION

Many operations in companies relate to the processing of products, that often cause damage to ecosystems, loss of biodiversity and water pollution, and damage the air around the ozone layer. Such social problems are being faced by developing countries, including Indonesia. Environmental pollution problems like this are be setting many waste production and mining companies. These companies are being required to take responsibility for the problems and find solutions, which is usually done by utilizing and managing waste properly with a view to minimizing the social burden arising from damage to the environment.

Fortunately, awareness of the importance of social responsibility in Indonesia has already begun. For instance, the Limited Liability Company Act No. 40 Article 74 of 2007 was passed by the President on August 16, 2007. These laws regulate companies carrying out activities related to natural resources and are required to assume social and environmental responsibility. As investors also want to invest and public confidence in the company has a good image in the eyes of the general public, companies are expected to carry out CSR. Siregar (2007), CSR is an activity that is not limited to merely being in compliance with legal rules; it is a creative activity.

The information disclosed in the annual financial statements can be grouped into two types, namely, mandatory disclosure and voluntary disclosure. The first type consists of the disclosure of social responsibility. According to Murni (2004), mandatory disclosure refers to the disclosures required in the annual report according to Bapepam regulations, while voluntary disclosure is in term of an excess of that required. Disclosures related to profitability and leverage, are part of mandatory disclosure and the information is always included in the company’s financial statements. The annual financial statements present the right medium for companies to submit financial information and transactions involving stakeholders.

Several previous studies examining firm age and size of the company as parts of the characteristics of the voluntary disclosure of companies have been conducted with varying results, e.g Lucyanda and Siagian (2012), Sembiring (2005), Indrawati (2009), Suhaenah (2012), Bayoud (2012), Putra (2009). Profitability and leverage have been used by some researchers examining the relationship between social responsibility disclosure and financial performance e.g Edmawati (2012), Sari (2012), and Syathi (2013).

This study analyzes the effect of firm size, profitability, leverage, and firm age on the disclosure of corporate social responsibility. The selection variables used in this study emulate Syathi (2013) which uses a sample of award-winning companies belonging to the PROPER category of gold and green. However, the sample used in this study consists of award-winning PROPER companies belonging to the gold category. Further, the analysis method used is panel regression analysis of annual financial reporting data in the period 2010-2015. Using the panel data estimation should be more comprehensive and realistic (Ekananda, 2014)

2 LITERATUR REVIEW AND RELATED RESEARCH

This study uses four independent variables and one dependent variable. Below are descriptions of the five definitions of these variables. Disclosure of social responsibility is measured by Corporate Social Responsibility Disclosure Index, which is based on indicators of the Global Reporting Initiatives (GRI). Company size is a variable that is often used in research on the disclosure of corporate social responsibility (Syathi, 2013). According to Riyanto (2011), profitability is the ability of a company to generate profits for a certain period. Gross Profit Margin (GPM) is one of the profitability ratios used, which compare gross profit by net sales. Leverage is defined as the use of the asset or the use of fund, which should cover fixed costs or pay a fixed load (Riyanto, 2011). Company age is measured by the time during which its shares have been listed by the stock exchange. According to Irawan (2006), young companies tend opt for wider disclosure of information than companies listed early on Indonesia Stock Exchange (ISE).

Sembiring (2005) states that simultaneous variable size, profitability, board size and leverage significantly affect the disclosure of corporate social responsibility. In part, size, profile and board size have a significant effect on the disclosure of corporate social responsibility but profitability and leverage seem to have no significant effect. Indrawati (2009) examined 32 samples using the companie's annual reports. The results showed that the political visibility and economic performance has a significantly positive impact on the disclosure of CSR in the annual report. Putra (2009), states that the disclosure of social responsibility is positively affected by profitability, earnings per share and board size. Other variables such as age, size, profile, public ownership, debt dependency do not seem to affect the disclosure of CSR. Rouf, (2011) found a positive association between the proportions of Independent Directors (INDs) and Corporate Social Responsibility Disclosure (CSRD). However, size of the firm does not affect the level of corporate social responsibility disclosure. As per control variables Board Leadership Structure (BLS), Board Audit Committee (BAC) and Percentage Return on Equity (PROE) are positively associated with the company's corporate social responsibility disclosure (CSRD). The results showed that a higher proportion of independent non-executive directors on the board was positively related to the level of corporate social responsibility disclosure but the extent of corporate social responsibility disclosure was negatively related to firm's size. Hussainey, Mohamed Elsayed and Marwa Abdel Razik (2011) found that company profitability is the main determinant of the aggregated individual CSR Information in Egypt. Another researcher Ali (2013) tried examine contributions to both the theory of CSED and literature on CSED in several developing countries. The researcher argued here that institutional theory is a more sophisticated theory than other theories: legitimacy and stakeholder theory explain CSED practices in the developing countries. Utami and Prastiti (2011) find that, net profit margin and size positively and significantly affect the degree of social disclosure. However, other variables such as age of the company, leverage, and proven management ownership do not affect social disclosure.

Using a sample of 44 high-profile companies listed in the Stock Exchange for 2006-2008, Lucyanda and Lady Gracia Prilia Siagian (2012) found that company size, profitability, profile, earnings per share, and environmental concerns influence CSR Disclosure. Johansson, Sebastian, Anton Christian Karlsson and Hagberg (2015) found that the relationship between CSR and financial performance in large Swedish publicly traded companies exhibited no significant relationship during 2006-2009.

3 RESEARCH METHOD

The population examined in our study consisted of publicly traded award-winning PROPER companies identified by the Ministry of Environment. Sampling was based on the purposive sampling method, using specific criteria: (1) the company had won gold rating in PROPER held by the Ministry of the Environment in the period 2010-2015; (2) the company is in the process of going public; (3) it had published its financial statements as of December 31. The determination of these criteria, due to start in 2010 PROPER implementation, has been using a baseline of Law 32, of December 31, in which 2009 Protection and Environmental Management is not like in the past when only the management of B3 waste was considered.

The reason for choosing the sample form Public Companies was, that they publish sustainability reports, either separately or incorporated in the annual report of the company. The publication of respective reports as of December 31, were used to align the period information of each company. Data were obtained from the annual sustainability reports of the sampled companies for the period 2010-2014. The dependent variable in this study was social responsibility disclosure. Matters related to corporate social responsibility reporting based on GRI standards (Global Reporting Initiatives), in which CSR is divided into three categories: economic performance (EC), environmental performance (EN) and social performance. Social performance is divided into four subcategories: labor, human rights, social and product liability. The estimation method consisted of panel data regression. This approach is generally considered the best method to detect and measure the impact that simply cannot be seen in pure cross-section data or pure time-series (Gujarati and Dawn C. Porter, 2012). The initial steps in data processing consisted of testing classical assumption, that the model obtained actually meets the basic assumptions in the regression analysis, e.g. normality, no autocorrelation, no heteroschedasticity and no multicolinearity. The next step was to estimate using Common Effect, Fixed Effects and the Random Effect methods. The process of selecting between common models with Fixed Effect was done through the Chow test or the likelihood ratio test. The next step was to choose between the Fixed Effects and the Random Effect approaches using the Hausmann test.

4 RESULT AND DISCUSSION

4.1 *The Growth of leverage, profitability, company size and CSR Index*

The object was to determine whether the companies receiving gold ranks during the PROPER 2010-2015 period were also listed on the Stock Exchange during the period 2010-2015 (6 years). The names of these companies were PT. Holcim Indonesia Tbk (SMCB), PT. Bukit Asam Tbk (PTBA), PT. Indocement Tunggal Prakasa Tbk (INTP), PT. Semen Indonesia Tbk (SMGR). Fig. 1 illustrates the variations in leverage, profitability, company size and CSR index for the five companies over the period under study.

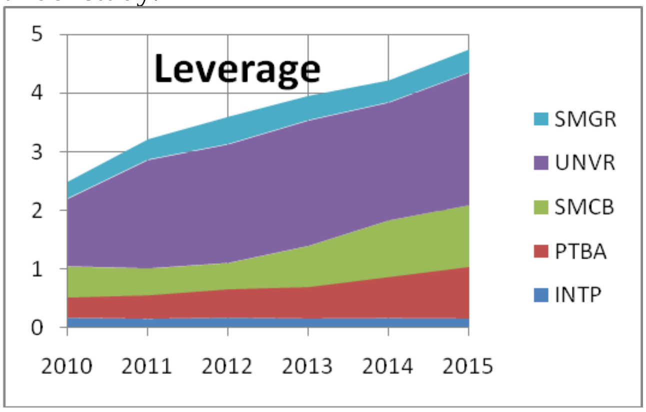

Fig. 1 Leverage Growth of 5 Companies in the period 2010-2015

Figure 1, shows that the company with the largest leverage percentage (DER), was UNVR, while that with the lowest was INTP, its leverage in 2011 was 15.3% of that of INTP. A DER value smaller than 100%, suggests that the company is in relatively good state. An examination of its annual report, revealed that INTP had paid off its long-term debt prior to maturity in 2008. In subsequent years, INTP had short-term debt figures smaller than equity (Syathi, 2013). By contrast UNVR was in the opposite condition: DER more than 100% is equal to 225.8%. This was because UNVR had obtained loans from Unilever International Finance AG in 2011, to finance the expansion of its production and general corporate operations.

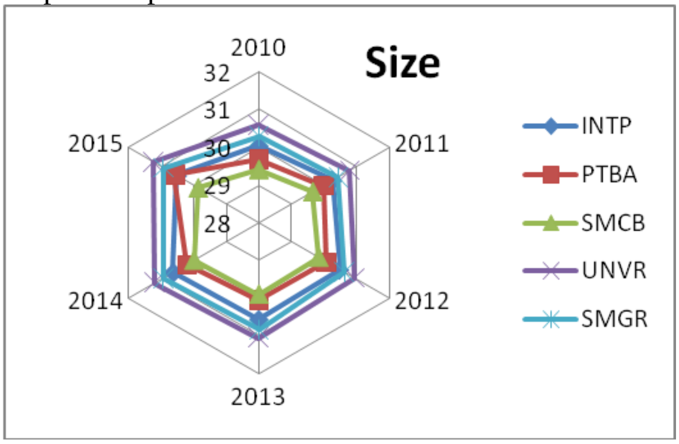

Fig. 2 Company Size of 5 enterprises in the period 2010-2015

Figure 2, clearly demonstrates that the largest company in the period was UNVR, its total assets were valued at 25 trillion rupiah, while the smallest company was SMCB with total assets of approximately 5 trillion rupiah. In general, large companies tend to disclose more information than small firms since, in principle large companies would not be separated from political pressure to undertake social responsibility.

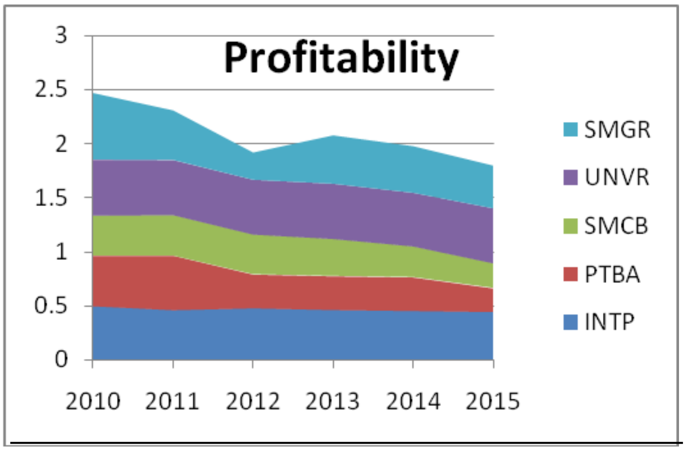

Fig. 3 Profitability Growth of 5 Companies in the period 2010-2015

Figure 3 shows that, UNVR had enjoyed the highest gross profit percentage in 2010, while the PTBA had the lowest (21.67%) in 2015. The relationship between the disclosure of corporate social responsibility and profitability of the company is believed to reflect the view that the social reaction requires a managerial style that enables the company's to make a profit (Sembiring, 2003).

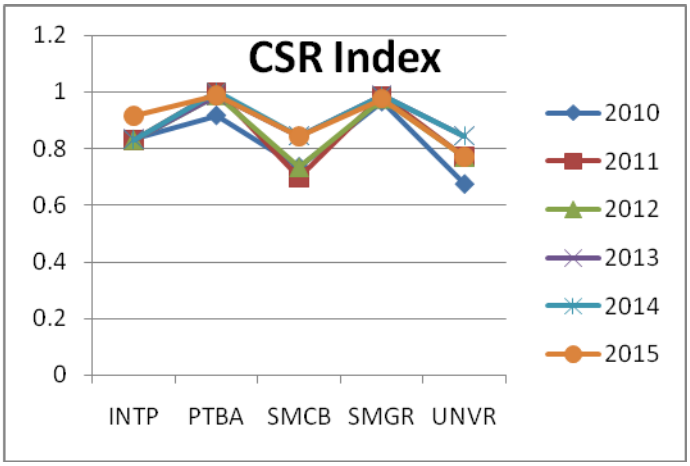

Fig. 4. CSR Index Growth of 5 Companies in the period 2010-2015

Disclosure of corporate social responsibility of a company includes 83 items disclosed in the annual and sustainability reports for the period 2010-2015. Content analyses included rating of companies. A value of 1 was given if an item is disclosed, and the value 0 if it is not disclosed. Item disclosures related to corporate social responsibility were subjected to GRI standards, namely economic performance, environmental performance and social performance. There were 9 items under economic performance, 30 under environmental performance and 44 under social performance. The five companies sampled had CSR index percentages above 70% with more than 60 items having been disclosed.

4.2 *Empirical Findings*

The next data processing step consisted of the classic assumption test mentioned earlier as a condition for proceeding to further estimation using panel data regression. Based on the tests of normality, it could be concluded that the data had satisfied the assumption of normality. The next test was multicollinearity testing. It was found that the three variables had tolerance values larger than 0.10 and VIF values smaller than 10 VIF, thus avoiding problems of multicollinearity in the regression model. The heteroscedasticity test was used to test whether the regression model variants of residuals for all observations were unequal. The heteroscedasticity test chart could be constructed using differences between variables as observed in a residual plot. If there were certain patterns, such as the points forming a specific pattern on a scatterplot (bumpy, widened, then narrowed), the occurrence of heteroscedasticity was suspected. If there was no clear pattern, points were spread above and below zero on the Y axis, there was no heteroscedasticity. The Durbin Watson (DW) autocorrelation value was 1.437. For acceptable results the DW value should be between -2 and +2 which indicates that there is no autocorrelation.

The first during panel data regression was to engage in common effect estimation (Widarjono, 2007), which involves estimating panel data by simply combining data time series and cross section, regardless of differences over time and individuals. The results from the panel data regression equation related to common effect and p-value were as follows:

$CSRI = -0.004401\ X_1 - 0.038422\ X_2 + 0.034584\ X_3 - 0.14085 X_4$
P value 0.1936 0.2242 0.0000 0.4869
X= age ; X2= leverage; X3= size; X4= profitability
$R^2 = 0.3100$

The next step was to estimate the Fixed Effect, using a model that assumed the existence of differences in the intercept in the regression equation. The model estimates panel data using dummy variables to capture the dispersion in the intercept values. Understanding the Fixed Effect requires one to examine the differences in the intercept between companies but the same intercept between time (time variant). The model also assumes that the regression coefficient (slope) remains consistent between companies and between times (Widarjono, 2007). The results were as follows:

$CSRI = 2.1415 + 0.0149\ X_1 + 0.1111\ X_2 - 0.0555\ X_3 + 0.0860 X_4$
P value 0.2609 0.1300 0.0096 0.4101 0.4313
$R^2 = 0.9231$

To determine whether the model had used the Common Effect or Fixed Effect, the next step consisted of conducting the Chow test. Results from the likelihood ratio test and the Chow test showed that F and Chi-square tests were significant. A p-value smaller than 5% suggested that the model had used Fixed Effect. This conclusion was supported by the R^2 of 92.31%. The next step was to estimate the random effect. The significance of the random effect method, lies in the assumption of a constant influence of the error term (Ekananda, 2014). The finding were as follows:

$CSRI = -7.2265 - 0.0180\ X_1 - 0.0494\ X_2 + 0.2803\ X_3 + 0.0860 X_4$
P value 0.2609 0.0000 0.0002 0.0000 0.6665
$R^2 = 0.7387$

To determine whether the appropriate model was Fixed Effect or Random Effect, the Hausman test was conducted. The results showed that there was no significant random cross section, the p-value 0.1670 was larger than 5%. This suggested that the model was with Random Effect.

The coefficient obtained for the size of the company was 0.2803 while the p value is 0.0000. It could therefore be conclude that firm size affect had affected the disclosure of corporate social responsibility. This finding was consistent with research by Sari (2012). In general, large companies tend to disclose more information than small firms. This is because large companies usually face greater political risk than small companies (Syathi, 2013). In theory, large companies would not be separated from political pressure exercise social responsibility. Disclosure of social responsibility results in greater political cost reductions for the company. There are allegations that the smaller companies will disclose poorer information compared to large companies. This may be exacerbated due to lack of resources or the absence of substantial funds as revealed in the annual reports. Managements are usually apprehensive that disclosing more information would endanger the company's position against other competitors. The availability of resources and funding, make companies feel the need to finance the provision of information on social accountability (Hasibuan, 2001).

The results showed that the data processing coefficient for firm age was -0.0180 with a p value of 0.000. This meant that the firm age variable had negatively affected the disclosure of corporate social responsibility. According to Sembiring (2003), the age of the company can show whether the company still exists and is able to compete. The long life of a company can be attributed to the financial statements of a company. According to Putra (2009), older companies have more experience in publishing financial statements. However in this study, this was not found to be true the coefficient was negative. This may have been because the older companies sampled in this study, had tended to be very careful not disclose too much about social accountability. Another explanation might have been that their tendency is to be inconsistent in reporting the activities of CSR or sustainability report.

The magnitude of the coefficient leverage was -0.0494 with a p value of 0.0002. It was therefore concluded that, leverage had a negative effect on corporate social responsibility disclosure, given that if the ratio of corporate debt to equity ratio is getting smaller, there will be a relatively increased CSR index. This means that if a company has the company's financial condition normal and stable, then the company will be motivated to be better at improving its social responsibility. These results are consistent with Sari (2012), Suhaenah (2012) and Syathi (2013). As pointed out by Sembiring (2005), leverage is a tool to measure how much the company depends on the lender to finance the company's assets. A high degree of leverage points to high dependence on external borrowing to finance assets. Conversely, if a company has a low level of leverage, it means that it is financing its assets using its own capital. The next variable to be examined was the profitability, which was found to have a coefficient value of 0.0860 and p value by 0.665. This suggested that the profitability variable had little effect on the disclosure of corporate social responsibility. These results are in line with Anggraini (2006), and Syathi (2013). Profitability as measured by gross profit margin shows that there is a considerable variation between companies. In our case, R^2 value 73.87%.

5 CONCLUSIONS

Based on the above discussion it can be concluded that the company's size, firm age and leverage had affect the disclosure of corporate social responsibility. Profitability had no effect on the disclosure of corporate social responsibility. This can be explained by the observation that there was a considerable gap between the values of GPM of companies. Further, the overall Indonesian economy was fluctuating during the study period.

Based on the economic reports, 2010-2012 was a year with good growth in the economy of Indonesia. For instance, the decrease in inflation rate between 2010 and 2011 was nearly 50%. This trend continued until the witnessing of a significant rise in foreign investors as well as the diversification of the commodity markets. Both had enabled the Indonesian economy to survive. After 2012, the Indonesian economy underwent many changes, e.g. the percentage of economic growth began to decline after 2014, and the exchange rate of the rupiah weakened against the US dollar. Moreover, new regulations replacing the old ones were introduced, particularly with regard to the expression of social responsibility. For instance, Limited Liability Company Law No. 40 of 2007 Article 74, which had previously focused on the implementation of corporate social responsibility, was replaced by Government Regulation No. 47 of 2012 on social and environmental responsibility, emphasizing the principle of publicity of social responsibility.

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