Determinants of Corporate Social Responsibility Disclosure and Investor Reaction

Andreas Tan1*, Desmiyawati Benni2, Warda Liani3

1Universitas Riau, Faculty of Economics, Department of Accounting, Indonesia, 2Universitas Riau, Faculty of Economics, Department of Accounting, Indonesia, 3Local Government Officials, Indragiri Hilir, Indonesia. *Email: tatandreas61@yahoo.co.id

ABSTRACT

This paper aims to examine the effect of firm size, media exposure and industry sensitivity to corporate social responsibility (CSR) disclosure and its impact on investor reaction. The population of the study is the companies listed on Indonesian stock exchange. The sample was taken by purposive sampling method, and samples of 53 companies were obtained. Data were analyzed using partial least squares path modeling. The result reveals that firm size, media exposure and industry sensitivity have a significant effect on CSR disclosure; firms size, media exposure and industry sensitivity have no direct effect on investor reaction; CSR disclosure have direct effect on investor reaction and mediates relationship between firm size, media exposure, industry sensitivity and investor reaction. This present study has two limitations. The first limitation of this study is that using media exposure as a proxy for public pressure may not have been fully fit, but there are still other forms of public pressure such as community lobby and pressure groups that can represent public pressure. The second limitation of this study is that the use of global report initiatives (GRI) indicators by the companies may not be suitable for the companies since they can not fully apply all of the items. Such difficulties result from the fact that GRI indicators as international guidelines on sustainability reporting are not fully implemented in Indonesia because of cultural and customs differences. The paper is one of the few studies in the academic literature to analyze the effect of three independent variables on the CSR disclosure of public companies and investor reaction to the implementation of CSR.

Keywords: Firm Size, Media Exposure, Industry Sensitivity, Corporate Social Responsibility Disclosure, Investor Reaction

JEL Classifications: G34, M14, L83

1. INTRODUCTION

Over the last few decades, there has been an intense escalation in public awareness about the role of corporations in society. Despite the great contribution to economic and technological development, there are a significant number of firms that suffer criticisms for having created social problems. They are allegedly held liable for such crucial issues as environmental damage and social problems. Issues such as pollution, waste, resource depletion, product quality and safety, the rights and status of workers, and the power of large corporations become the focus of increasing attention and concern (Reverte, 2009).

As a result of uncovered wrongdoings that are committed by companies, the company is encouraged to pay more attention to the community and the environment (Purwanto, 2011). Companies are expected to be more socially responsible in addition to the commonly pursued objective of small shareholders’ benefits. The companies should not be solely oriented to the interests of shareholders through profit achievement, but also the interests of other stakeholders (Zhang, 2013). Corporate social responsibility (CSR) has been commonly adopted by companies in their response to a public claim for corporate liabilities. A CSR is a form of a corporate program that represents awareness and responsibility (Purwanto, 2011). Performing CSR may also mean that companies care for the social welfare of the public.

Company disclosure is important to obtain legitimacy in response to public pressure (Guthrie and Parker, 1989). This implies that companies may earn greater social support and less public
Complaint. One way to let the public know what the companies are doing is the disclosure of relevant and related public information. The level of social disclosure is closely related to public pressure because of the disclosure is used to respond the exposure of social environment (Patten, 1991). Public pressure is proxied by firm size (Guthrie and Parker, 1989; Patten, 1991; Adler and Milne, 1997; Reverte, 2009), media exposure (Adler and Milne, 1997; Patten, 2002; Cormier and Magnan, 2003; Brammer and Pavellin, 2004; Arshad and Vakhidulla, 2011; Michelson, 2011) and industry sensitivity (Adler and Milne, 1997; Patten, 1991; Reverte, 2009; Roitto, 2013).

Considering the extensive and massive scope of operation, large companies are more likely to have more extensive and massive impacts on society. As a consequence, large companies are more likely to receive more attention from the public and put under a greater public pressure to demonstrate social responsibility (Cowen et al., 1987). Large companies commonly operate in large scale that can easily attract public attention. Because small companies are more likely to have higher risks than large companies, it is understandable that investors in small companies are not interested in doing stock trading. Investors may avoid any form of investment in small companies. Investing in these companies is at higher risk of losing the money that they have invested. This condition is in contrast to large companies in which a great number of investors trade stocks. This likelihood has resulted in the trend that market reaction is more commonly found in large companies than small firms.

Media exposure has an impact on the public opinion and helps generate public pressure (Cormier and Magnan, 2003; Brammer and Pavellin, 2004; Michelson, 2011). Bansal (2005) showed that more intensive media exposure will increase the visibility of the company, making the company become the object of attention and public scrutiny. The company relies on the news broadcasted by the media and from processed information from the investor. It is true that media will not be able to decide immediately how public attitudes and opinions are developed, but media were able to indirectly influence the audience perspective and community decisions by providing accurate information, consequently will change public attention to some fact and opinion (Feng et al., 2013).

Companies with higher environmental impacts are found to disclose social and environmental information more intensive and frequent than others because there is greater public pressure against the company (Patten, 1991; Adams et al., 1998). It is, therefore, understandable that environment-sensitive industries would be more transparent about their environmental strategies and spend more resources on environmental management to gain community trust. These industries will surely be highly appreciated by investors. In line with the escalating public confidence in the company, it is expected that public trust will induce enhancement in prices and sales volume of shares (Zuhroh and Sukmawati, 2003).

CSR is a phenomenon of corporate strategy that is particularly intended to accommodate the needs and interests of the stakeholders. Hence, it is expected that stakeholders know any information pertaining the program of CSR carried out by companies. In recent time, investors start applying CSR as a factor in the investment decision making (Gardina et al., 2014). Investors will see CSR activities as a reference to assess the sustainability of the company. In case the company does not carry out CSR program, stakeholders could question the company about their commitment to social responsibility (Rita et al., 2008). Furthermore, in that condition, when the companies fail to meet the social responsibility, investors will practically assume that the company is unable to maintain the sustainability of its business, and consequently, it will drive out the investors, and they will not be interested in investing their capital in the company. Investors are more likely to invest in the companies that consistently carry out social responsibility activities, since it is one of the activities that will make the company amenable in public (Megawati and Christiawan, 2011).

2. LITERATURE REVIEW

Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs, and definitions (Suchman, 1995; Zhang, 2013). Companies are required to be able to adapt the system to be compliant with the community value (Rita et al., 2008). This is in line with what the legitimacy theory has suggested. Legitimacy theory emphasizes the importance of corporate disclosure strategies, including the corporate social report. This theory has become one of the most cited theories within the social and environmental accounting area. CSR reporting is intended to influence stakeholders and the public perception of the legitimacy of the organization by providing information that will lead the company to pay attention to social responsibility (Hooghiemstra, 2000).

In addition to legitimacy theory, there is another theory underlying social disclosure. This theory is popularly known as stakeholder theory. Stakeholder theory states that the company’s objectives are not solely oriented to intensify value of the owner, but also of other parties who are interested in the company (Lawrence and Weber, 2011). CSR argued that the company should strive to meet the demands of several groups of stakeholders. From a managerial perspective, CSR is a management tool for managing information to satisfy the needs of various stakeholders.

Large companies are more likely to do more and thus consequently also have a greater impact on society, which received more attention from the public and is under greater public pressure to implementing social responsibility (Patten, 1991; Cowen et al., 1987). Large companies are expected to reveal broader CSR information to describe the company concern, thus legitimizing the existence of the company. Belkouei and Karpik (1989), Patten (1991), Hackston and Milne (1996), Adler and Milne (1997), Adams et al. (1998), Sembiring (2003), Reverte (2009), Wang et al. (2013) has provided empirical evidence that the firm size has a significant relationship with the level of social disclosure.
Bansal (2005) showed that more media exposure increase the visibility and public scrutiny. If a company has always been under intense public scrutiny, it will build a positive image to the public (Roitto, 2013). The company will have to perform well socially in their endeavor to socially look fine. They are fully aware that every aspect of their business is under the public scrutiny and thus, they carefully avoid any possible mistake. According to Simon (1992) in Wang et al. (2013) media as a source of information plays a major role in influencing the decisions of stakeholders. Media has extensive outreach and is well-prepared to disseminate either good or bad news. Companies have been very careful in managing the information in order that it can be appropriately and properly distributed by the media. Reverte (2009); Wang et al. (2013); Ellis et al. (2014) have provided empirical evidence that media exposure has a significant relationship with CSR disclosure. This implies that companies will strive to disclose their CSR in proportion to the media exposure.

Industries that produce hazardous materials such as chemicals, oils, laboratory supplies, and medical supplies have a higher risk of social pressure. These industries are alleged to have polluted the environment deriving from the disposal of used materials, spills, or possible operational accidents. Bowman and Haire, 1975; Cowen et al., 1987; Ness and Mirza, 1991; Gao, 2009 in Wang et al., 2013 noted that the way the company deals with the issues of social pressure varies across the industries. Therefore, it is reasonable that companies with greater environmental impacts tend to disclose social and environmental information more than others (Patten, 1991; Adams et al., 1998). The disclosure is more intense and more frequent in response to meet the current regulation and to anticipate the possible public protest. Some empirical evidence explains that there is a significant relationship between the sensitivity of industrial and CSR disclosure (Reverte, 2009; Kurniawan and Pangesti, 2011; Wang et al., 2013). The more sensitive the industry, the more frequent and intense the disclosure of CSR.

It has been widely acknowledged that the size of the company would affect its ability to bear risks that may arise as a result of various situations faced by the company. Stated in another way, larger companies are more capable of managing the risks than smaller companies. In the case of stock trading on the stock exchange, shares of big business are traded more than the shares of small companies. It is expected that investors prefer to trade the stock of big business than the stock of small companies. Titik (2004) reveals that there have been prior researches that give enough guidance to involve firm size as an independent variable to be used in linear regression in the determination of the investor reaction.

Mass media plays an important role in identifying what will happen in the stock market. Tetlock (2007) suggests that mass media can predict the movement of stock market activity. Reading the information on the stock market will provide insights for the investors who will use all information available for decision making by rationality and efficiency. Considering the importance of the effect of media exposure to investor reaction, this aspect has been investigated by Malmendier and Shantikumar (2009) who found that local investors react more strongly than non-local investors to articles published in regional newspapers.

Sensitive industries would be more transparent about their environmental strategies and spend many resources in environmental management because of the relatively higher political cost, regulatory burden and stakeholder and more frequent environmental incidents (Patten, 2002; Cormier and Magnan, 2003). Furthermore, transparency in environmental management will gain public confidence, which in turn will increase the price and trading volume (Zuhroh and Sukmawati, 2003). When companies earn public trust deriving from the companies’ transparent practice of environmental responsibility, companies will be perceived more favorable by the public.

The information provided by companies has to be useful for the investors. Useful information refers to the information that can lead the investors to conduct a transaction in the capital market. Investors will react to the information disclosed by the companies. The reaction of investors is reflected by an increase in stock price and trading volume activity (TVA) (Zuhroh and Sukmawati, 2003; Emillia and Cahyandito, 2006; Rima, 2008). In recent time, information disclosure is very crucial in the announcing the corporate commitment to social and environmental issues. Accordingly, investors begin to take into account the information about CSR disclosure as a factor in making investment decisions (Gardina et al., 2014). Realizing the importance of CSR in the sustainability of companies, investors will specifically pay attention to how the companies have implemented the social responsibility activities as a reference to assess the potential sustainability of the company. Zuhroh and Sukmawati (2003) found empirical evidence that social disclosure in the annual report of the public companies affects the trading volume for high profile categories.

Large companies have a huge impact on society and thus receive more attention from the public and are under greater public pressure on social responsibility (Cowen et al., 1987; Patten, 1991). Their sustainability partly derives from how the public perceives the companies about their commitment to social responsibility. Therefore, it is expected that large companies disclose information about social responsibility to gain legitimacy for the existence of the company in society. Honest disclosure of social responsibility information is therefore associated with the prospect of the business as well. Companies that honestly express their social responsibilities will have a positive reaction from investors. The positive investor reaction will result in the marked increase in the stock trading volume (Rita et al., 2008).

If a company is under intense public scrutiny, it would appear an attempt to build a positive image to the public (Roitto, 2013). Media coverage has an impact on public opinion and helps generate public pressure (Cormier and Magnan, 2003; Brammer and Pavellin, 2004; Arshad and Vakhidulla, 2011). Bansal (2005) argues that more media exposure increase the visibility of the company, making the company the object of attention and public scrutiny. The public will be more familiar with the companies that are frequently and positively exposed in mass media. Media
exposure then represents a beneficial coverage for the companies that have implemented the expected responsibility of social needs. The role of media has been widely acknowledged since the media has an important role in the movement of social mobilization, such as an interested group in the environment (Patten, 2002). As a consequence, companies that are considered successful in the implementation of social responsibility will be positively considered by investors (Rita et al., 2008; Zuhroh and Sukmawati, 2003).

Industries that are more likely to cause damage to the environment will get higher social pressure (Roitto, 2013). Industries with high pollution such as chemical industry, mining and mineral were more likely to disclose an environmental information (Joshi et al., 2011). The companies take the necessary action to minimize the negative response of the public resulting from the concern on water, soil, and air pollutions. This is in line with what is stated in the theory of legitimacy. If companies disclose social information associated with the theory of legitimacy, this is done to legitimize their operations and reduce the pressure of social and environmental activists (Sari, 2012). Furthermore, it also enhances public confidence in the company and turns it is expected to increase the price and trading volume (Zuhroh and Sukmawati, 2003).

3. METHODS

3.1. Sample Design and Data Collection

53 companies listed on Indonesia stock exchange for the period 2012 to 2013 were selected by purposive sampling method. To be included in the sample, the companies had to meet the following inclusion criteria: A. The companies that disclose CSR in the annual report for the period 2012 to 2013; and B. The companies that are exposed in SWA Magazine, Bisnis Indonesia, Kompas, Tempo, Republika, Warta Ekonomi and Sindonews for the period 2012 to 2013.

3.2. Measurement of Variables

3.2.1. CSR disclosure

CSR disclosure is the disclosure of any information related to social responsibility activities that have been implemented by companies. The disclosure of such information is needed to response the increasing requirement by the public that wishes to know the corporate commitment to social responsibilities. It has to be appropriately measured to ensure the validity. CSR disclosure was measured by CSR disclosure index (CSRDI) which refers global report initiatives (GRI) indicators. GRI indicators consist of three focuses of disclosure, namely economic, environmental and social as a basis for sustainability reporting. The GRI indicators are international rules that have been recognized by the companies in the world. CSRDI measurement refers to the study by Nurkhin (2003), which uses content analysis to measure the variety of CSRDI. CSRDI formula is expressed as follows:

\[
\Sigma X_{ij} \times \text{CSRDI}_j 
\]

Where CSRDI$_j$: Corporate Social Responsibility Disclosure Index companies $j$.

3.2.2. Firm size

The size of a company depends on some factors, such as gross receipts, the number of workers and total assets. The size of a company in this study was specifically measured by total assets (Titik, 2004; Rita et al., 2013). The rationale of using the total assets as the measurement of the size of a company is that it reflects the magnitude of the resources owned by the company. Total assets can better represent the company’s assets compared to either gross receipt or number of workers.

3.2.3. Media exposure

Media exposure was measured by the number of articles published in newspapers and magazines, i.e. SWA magazine, Bisnis Indonesia, Kompas, Tempo, Republika, Warta Ekonomi, and Sindonews for the period of 1 January 2012 to 31 December 2013. The Bisnis Indonesia, Kompas, and Republika are the newspapers that have the largest circulation of any daily newspapers in Indonesia.

3.2.4. Industry sensitivity

For the purpose of the study, the Industry is classified into two groups, namely the sensitive industry and non-sensitive industry. Industry sensitivity is measured by a dummy variable: 1 for sensitive industry and 0 for the non-sensitive industry.

3.2.5. Investor reaction

Investor reaction is measured by TVA. The TVA is the ratio between the number of shares traded at a certain time and the number of shares outstanding at any given time (Husnan, 2009. p.267). TVA can reflect all the activities of investors in the capital market.

\[
TV_{A_{1,t}} = \frac{\text{Number of shares traded j at timet}}{\text{Number of shares outstanding at the time } j_t} 
\]

The investor reaction was observed using 11-day period, the day −5 to +5 days date of publication of the annual report.

3.3. Data Analysis

The data gathered was subsequently analyzed using the partial least squares path modeling partial least squares structural equation modeling (PLS) approach to structural equation modeling. It is a component-based estimation procedure that is different from the covariance-based structural equation modeling approach. Partial least squares path modeling can work efficiently with the small sample size and complex model. If the model is formed with an intervening variable, the appropriate data analysis technique is the path analysis. Path analysis using SmartPLS for an observed variable does not require the validity and reliability test. Thus, it directly carries out the structural model estimation (Hengky and Ghozali, 2012, p.314). The procedure developed by Soper (2014) was used to test the indirect effect known as Sobel test. Sobel test formula is shown as follow:

\[
S_{ab} = \sqrt{(b^2S_a^2 + a^2S_b^2 + S_a^2S_b^2)} 
\]

The t statistic of indirect effect can be calculated by the following formula:

\[
t = \frac{ab}{S_{ab}} 
\]
4. RESULTS AND DISCUSSION

4.1. Descriptive Analysis
Overall descriptions of research variables include the maximum, minimum, and standard deviation as shown in Table 1.

Table 1 shows both minimum and maximum values of the size of the company. The minimum value is 2.076.348, and the maximum value is 733.099.762. It also shows the standard deviation value of 141.416.733. This data reveals that the total asset of the smallest company is 2.076.348, while the largest value of total assets is 733.099.762, which means that there are considerable differences between large and small companies that result in the significant standard deviation.

Media exposure has a minimum value of 1 and a maximum value of 17 and a standard deviation of 3.7976. This reveals that during the years from 2012 to 2013, the companies had undertaken at least 1 CSR activity and at most 17 activities that were exposed in the media.

CSR disclosure has a minimum value of 0.1392, the maximum value of 0.7089, and a standard deviation of 0.1267. This data reveal that there are companies that report social responsibility activities of only 13.92% of the 79 items of disclosure in the annual report.

Investor reaction has a minimum value of 0.0133, maximum value 0.7381, and a standard deviation of 0.1110. This condition reveals that when the company reported a slight social responsibility activities in its annual report around the date of publication of the annual report that 5 days before and 5 days after the publication date received less response by investors and accordingly will result in a marked small volume of stock trading.

4.2. Results
The simultaneous testing of the effect of exogenous variables (X) and mediation (M) on endogenous variables (Y) is as follows:

Table 2 reveals that the size of the company, media exposure, and the sensitivity of the industry significantly affects social responsibility disclosure respectively with t-statistics value of 2.069; 3.4829; 6.4995, which were >1.96. On the contrary, the size of the company, media exposure, and the sensitivity of the industry do not have any effect on the investors’ reaction respectively with t-statistics value of 1.4215; 0.5199; and 1.7848, which were smaller than 1.96. CSR disclosure significantly has effect on investors’ reaction with t-statistic values of 2.0501>1.96.

The statistical test of the indirect effect using Sobel test indicated that CSR disclosure mediates the relationship between firm size and investors’ reaction; media exposure and investors’ reaction; sensitivity of the industry and investors’ reaction respectively by 2.0935; 2.0003; and 2.3439, which were >1.96.

As shown in Table 3, the $R^2$ values to social responsibility disclosure and investor reaction were respectively 0.2827 and 0.0942.

5. CONCLUSIONS AND LIMITATIONS
This paper presents the results of a study that investigates the effect of firm size, media exposure, industry sensitivity to CSR disclosure and its impact on investor reaction. The findings concluded that the variables of the size of company, media exposure, and sensitivity of industry have significant effects on social responsibility disclosure. It means that the larger the company, the wider the social responsibility that they have to assume. Companies that are increasingly under severe public pressure through the media exposure will make disclosure of wider social responsibility. Such is also the case for the sensitive industry. Increasingly sensitive industry will make disclosure of wider social responsibility.

On the contrary, the size of company, media exposure, and sensitivity of industry do not have any effect on the investors’ reaction. The finding reveals that size of company, media exposure, and sensitivity of industry are not the factors that investors should consider in making an investment decision. CSR disclosure has significant effects on investors’ reaction. As it has been expected, the finding implies that the issue of disclosure of social responsibility is an important factor for investors to manage their investments.

Furthermore, it was found that CSR disclosure mediates the relationship between firm size and investors’ reaction; media exposure and investors’ reaction; the sensitivity of industry and
Table 3: R² value

<table>
<thead>
<tr>
<th>Variable</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR disclosure</td>
<td>0,2827</td>
</tr>
<tr>
<td>Media exposure</td>
<td>0</td>
</tr>
<tr>
<td>Investor reaction</td>
<td>0,0942</td>
</tr>
<tr>
<td>Industry sensitivity</td>
<td>0</td>
</tr>
<tr>
<td>Firm size</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Processed data SmartPLS 2.0 M3

investors’ reaction. Thus, it can be concluded that disclosure of social responsibility has become an important issue for the company to preserve the survival of the company. To be positively perceived by the public, companies have to take a particular care for social issues. The R² values to social responsibility disclosure and investor reaction of respectively 28.27-9.42% indicate that there are many other factors that can have an effect on the social responsibility disclosure and investor reaction. They may include such factors as community lobby, a pressure group, social and political activist groups.

The research has some managerial implication. One of the most important implications of this research is that the company has to change the paradigm of thought. The leaders of the companies have to attend such social and environmental issues more seriously and take the required CSR to stakeholders. In other words, companies are no longer exclusively faced with the little responsibility for the single bottom line. Instead, it has to take equally into account the importance of the public interest through CSR.

This present study has two limitations. The first limitation of this study is that using media exposure as a proxy for public pressure may not have been fully fit, but there are still other forms of public pressure such as community lobby and pressure groups that can represent public pressure. The second limitation of this study is that the use of GRI indicators by the companies may not be suitable for the companies since they can not fully apply all of the items. Such difficulties result from the fact that GRI indicators as international guidelines on sustainability reporting are not fully implemented in Indonesia because of cultural and customs differences. Further research may use other proxies of public pressure such as community lobby and pressure groups. The use of more appropriate indicators of social responsibility disclosure for companies in Indonesia is also advisable.

REFERENCES


Nuha, N.A., Wahyuni, N.I., Irmadariyani, R. (2014), The difference of social responsibility disclosure and investor reaction. For the companies since they can not fully apply all of the international guidelines on sustainability reporting. Source: Processed data SmartPLS 2.0 M3.
Sembiring, E. (2003), Financial Performance, Political Visibility, Reliance on Debt and Disclosure of Corporate Social Responsibility, National Symposium on Accounting 6, Airlangga University.
Zhang, J. (2013), Determinants of Corporate Environmental and Social Disclosures in Chinese Listed Mining, Electricity Supply, and Chemical Companies Annual Reports. Edith Cowan University.