

## **Corporate Social and Environmental Disclosure: A Positive Accounting Theory View Point**

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### **Abstract**

*This study provides an examination of Indonesian corporate social and environmental disclosure in the Positive Accounting Theory (PAT) perspective. This study identified three key hypotheses such as management compensation hypothesis (bonus plan hypothesis), the debt hypothesis (debt/equity hypothesis), and the political cost hypothesis. The population of this study is about 1857 companies (for five year period), yielded in a sample of 911 usable companies listed in Indonesia Stock Exchange. The social and environmental disclosure level is measured using combination of Clarkson 'Environmental Index (2007) and Sutantoputra' social index (2009). The regression analysis shows that corporate social and environmental in Indonesia is associated with: ROA, firm's size, and firm's earning management. Thus, the result support the bonus plan hypothesis and political cost hypothesis, conversely debt/equity hypothesis can not be support.*

**Keywords:** Corporate Social and Environmental Reporting, Positive Accounting Theory, Bonus Plan Hypothesis, Debt/Equity Hypothesis, Political Cost Hypothesis

### **1. Introduction**

Social and environmental reporting is also commonly referred to as corporate social responsibility reporting (Deegan, 2007). It can also be defined as an environmental management strategy to communicate with stakeholders, hence corporate social and environmental reporting (CSER). Besides, the CSER can command a pivotal role in the "greening" of corporate accountability (SustainAbility/UNEP, 2002). For example, CER has been best described as a tool to spur corporate policies, strategies, and management systems geared to minimizing adverse environmental impact (SustainAbility/UNEP, 1998).

The development of these practices in early and mid 1990s had a trend taking the form of disclosure within annual report about the environmental (and subsequently social) policies, practices and/or impact of the reporting organization. Further, as such reporting practices become widespread and social and environmental disclosures made by some organizations become more extensive to report, companies started to publish it in a separate social and environmental report (Deegan, 2007).

In Indonesia, the implementation and acknowledgement of corporate social and environmental reporting is relatively new and it has become the most popular term since the mid 1990s. In 2005, SWA Magazines conducted a research related to the most popular concepts. The result reveals that CSR is the most popular term conducted in strategic corporation (Hasibuan, 2006), as indicated by 31% of the respondents. In addition, the concept has also made popular due to the notorious environmental incidents in Indonesia, such as, the hot mud flood caused by oil and gas company, Lapindo Brantas Inc., that caused massive mud flow in East Java in 2006. The incident submerged eight villages and caused 13,000 people to be evacuated.

Environmental destruction caused by the world's biggest miner - Grasberg in West Papua, operated by Freeport and Buyat Case has caused arsenic pollution in drinking water of people at Buyat Bay, where Newmont mines gold, and it was suspected that it also causes high mortality amongst children and women. These cases, among the many, have opened the eyes of the general public, and the regulated body and corporation on the importance of corporate social responsibility.

Previous research in social and environmental accounting area has provided different explanations about the organization's motives for implementing social and environmental reporting practices. In example, Gray, Koughy, and Lavers (1995) explain further that Decision-Usefulness perspective generally relates to the usefulness of accounting information, which is social accounting information in this case. Nevertheless, they also state that Decision-Usefulness studies lacks theoretical backing, as the discrepancy between corporate non-financial motives to get involved in CSR and the needs from financial stakeholders side, which are predominantly financial, being the main problem.

Economic-Based Theory studies were conducted as a response to the unsatisfactory decision-usefulness approach. Social disclosure studies, using economic theory, have been in the periphery of Agency Theory and Positive Accounting Theory (PAT) research (Orij, 2007). Several studies have been carried out using this perspective to explain the existence and the contents of social and environmental accounting (e.g. Belkoui & Karpik, 1989; Cahan, 1992; Cahan et al., 1997; Crumbley, 2003; Ness & Mirza, 1991). The basic argument relies on Watts and Zimmerman's Positive Accounting Theory (1986), which is based on positive research, an approach of analyzing "what is" as opposed to the normative theory approach which analyses "what should be" (Deegan, 2007). According to Belkoui and Karpik (1989), Positive Accounting Theory becomes an interesting rationale for CSR reporting. Moreover as indicated by Reverte (2009), positive accounting theory views the firm as a nexus of contracts between economic agents who act opportunistically. In social and environmental reporting context, this theory may be useful for describing the debt contractual obligations, managerial compensation contracts or political costs. This theory predicts that all people are driven by self-interest. As such, particular social and environmental activities and their related disclosures would only occur if they have positive wealth implications for the management involved (Watts & Zimmerman, 1986). Therefore, it is necessary to undertake research that predict and explain particular phenomena which occur in corporate social accounting. Thus this study assists in giving an understanding of why different firms choose Positive Accounting Theory to explain corporate social and environmental reporting.

## **2. Literatur Review**

### **2.1. Corporate Social and Environmental Disclosure**

Corporate social and environmental disclosure emerges from a variety of sources, but evidence suggests that it is an important and increasingly prevalent source of information supplementary to the organization's financial reports. The reporting of social and environmental information has developed in a predominantly ad hoc manner (Gray, 1995) and it has been noted that it "takes a wide variety of forms and appears under various labels" (Gray, 2002, pp.687). Current nomenclature includes terms such as triple-bottom-line (Elkington, 1997); corporate social responsibility (Gray, Owen, & Adams, 1996); socially responsible accounting (Mathews, 1993); sustainable development (Bebbington, 1997); mega-accounting (Mathews, 1997), and social and environmental accounting/accountability (Gray, Owen, & Maunders, 1987).

Deegan (2007) also gives a similar definition to social and environmental reporting as corporate social responsibility disclosure, and the term corporate social responsibility itself has been defined in a variety of ways. For example, the World Business Council for Sustainable Development (WBCSD, 1999) defines corporate social and environmental reporting as the continuing commitment by business to behave ethically and to contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and of society at large. Parker (1986) describes corporate social and environment disclosure as the reporting by corporations on the social impact of corporate activities, and the effectiveness of corporate social programs, as a way corporation's discharging of its social responsibilities, and the stewardship of its social resources.

### **2.2. Positive Accounting Theory**

Social and environment disclosure is a topic that has gained interest of many researchers from various theoretical perspectives. The most popular perspective is Positive Accounting Theory from Watts & Zimmerman (1986).

Positive Accounting Theory (PAT) is an expression of neo-classical economic theory. Fundamental to it is a belief in rational choice theory, that is, material self-interest usually referred to as opportunistic behavior as the basis for all economic activities. Therefore, in Positive Accounting Theory (PAT), self-interest (opportunistic behavior) is the reason for the choice of accounting methods and techniques as well as policy decisions.

In PAT, the firm (organization, company or whatever) is described in terms of a collection of contracts – a nexus of contracts. Contracts are necessary in order to get self-seeking individuals to agree to cooperate. For example, there are contracts with managers, suppliers of capital and employees (including the managers). The contracts are necessary to get individual parties to act to maximize the wealth of the owners (shareholders). However, there will be contracting costs associated with the contracts, for example, costs of negotiating with and maintaining and monitoring the performance of the parties involved. PAT holds that firms will seek to minimize the contracting costs and this will affect the policies adopted, including the accounting policies (Graffikin, 2007). Watts and Zimmerman (1986) argue that the objective of positive accounting theory is to describe, explain and predict accounting practice of managers. So it will be clear which firms publish certain information like corporate disclosure. The positive accounting approach says nothing about which method of reporting should be used as a positive theory is based on empirical information and is not normative. Watts and Zimmerman (1990) identified three key hypotheses that have been frequently used in the PAT literature to explain and predict whether an organization would support or oppose a particular accounting method. These hypotheses can be called management compensation hypothesis (bonus plan hypothesis), the debt hypothesis (debt/equity hypothesis), and the political cost hypothesis.

### **2.2.1. Bonus plan hypothesis**

The bonus plan hypothesis states that a manager of a firm with bonus plans (tied to reported income) is more likely to use accounting methods that increase current period reported income. Such selection will presumably increase the present value bonuses if the compensation committee fined results generally consistent with the bonus plan hypothesis. Hence, *ceteris paribus*, managers of firms with bonus plans are more likely to choose accounting procedures that shift reported earnings from future periods to the current period (Watts & Zimmerman, 1990).

Based on Watts and Zimmerman's (1990) work, research under PAT typically adopts either an efficiency perspective or an opportunistic perspective. First, within the efficiency perspective, researchers explain how various contracting mechanisms can be put in place to minimize the agency cost of the firm to the agent (Deegan, 2007). For example, many corporations conduct voluntary disclosure before there was any mandatory requirement from the government. Whittered (1987) argues why firms voluntarily prepared publicly available consolidated financial statements. He finds that when companies borrowed funds, it often took form of guarantees provided by other entities within the group of organization. Second, the opportunistic perspective of PAT assumes that managers will opportunistically select a particular accounting method whenever they believe that this will lead to an increase their personal wealth (Deegan, 2007). Hence, if managers will be rewarded in terms of performance such as stock exchange rates and/or accounting profits, they will try to increase the stock exchange rates and/or accounting profits to maximize their own wealth (Deegan & Unerman, 2005). It is probable that more corporate social and environmental disclosure leads to better firm performance, and as a consequence, the managers will be more rewarded (Banwarie, 2011).

Previous studies have examined the relationship between accounting choice for external reporting and the existence of bonus contracts (Hagerman & Zmijewski, 1979; Bowen, Lacey, & Noreen, 1981; Skinner, 1993; Subramaniam, 2000 ). Annual bonus payments are closely tied to the economic performance of the firm as measured by accounting indicators of financial performance (Finkelstein & Hambrick, 1989), and provide a direct link between managerial actions and short term rewards (Rajagopalan, 1997).

In the area of corporate social and responsibility, some researchers have found a positive relationship between bonus plan and the social and environmental disclosure. For example, Robert (1992) finds that the social and environmental disclosures were positively related with corporate profitability. Likewise, Chan (2003) examines the relationship between ROE and social disclosure and the result is positive. Using ROA as a proxy of bonus plan has been widely used by other researchers (cf. Barako et al., 2006; Haniffa & Cooke, 2005; Willekens et al., 2005). Zakaria (2011) investigates the impact of political sensitivity on the quality and quantity of annual bonus plan disclosures in a sample of 400 large UK firms.

By running two separate regression models, one for disclosure quality and one for disclosure quantity, she finds that disclosure quantity increased with political sensitivity, but disclosure quality decreased as firms became more politically sensitive. The findings recommend that managers mask their rent extraction activities, in this case, excessive remuneration, by providing high volume but low quality of corporate disclosures. Zakaria uses ROA as a proxy of bonus plan in her study. ROA as a proxy of bonus plan was also used by other researchers (e.g. Masodah, 2007; Rahman et al., 2005). Hence, according to PAT, firms that disclose their social and environmental activities tend to have greater rate of return. Thus it is hypothesized that:

H1: Firm's bonus plan is positively associated with its social and environmental disclosure level.

### **2.2.2. Debt/equity hypothesis**

In accounting, debt/equity hypothesis predicts that the higher the firm's debt/equity ratio, the more likely managers use an accounting method that increases income. The higher the debt/equity ratio, the closer the firm is to the constraint in the debt covenants. Hence, *ceteris paribus*, the larger a firm's debt/equity ratio, the more likely the firm's manager is to select accounting procedures that shift reported earning from future period to the current period (Watts & Zimmerman, 1990). It is argued that when a firm is making a large use of debt, a monitoring problem arises between stockholders and creditors. Thus, the involved firms may solve this problem by increasing the level of voluntary disclosure (Al Arrusi et al, 2009). Zarzeski (1996) supports this view by saying that firms with higher debt ratio are more likely to share private information with their creditors; thus voluntary disclosures can be expected to increase with leverage.

Positive accounting researchers see the concept of risk as playing an important role. Put simply, companies which disclose less or which disclose information of a poor quality relative to other companies of similar size and risk characteristic are perceived by lenders as secretive and less forthcoming in disclosing information useful for decision purposes and thus are considered more risky. Conversely, the higher level of disclosure is argued to lead to a lower cost of debt capital (Hibbit, 2003). Thus, if a firm has entered into agreements with lenders, and these agreements involve accounting-based debt covenants, then the managers have an incentive to adopt accounting methods that relax the potential impact of the constraints (Deegan & Unerman, 2005). Therefore, more corporate social and environmental disclosure can lead to an increased possibility that the debt/equity ratio will increase (Banwarie, 2011). And as a result firms can borrow more capital with the same owner's equity.

Previous studies have produced empirical results consistent with debt/equity hypothesis in positive economic model of accounting choice (e.g. Dhaliwal, 1980; Healy, 1985; Hibbit, 2003; Holthausen & Leftwich, 1983; Meek & Gray, 1989; Orij, 2007). In the area of social and environmental, Felton, 1982 (cited in Hibbit, 2003) argues that, in attempting to avoid any hurdles of the debt covenants, management is said to choose accounting methods that increase the current period's reported earnings, for example, by reducing discretionary social and environmental programs or by not carrying out any programs which would reduce reported earnings in the short term. Similar to Felton, Roberts (1992) offers a similar opinion that a high degree of dependence on debt would encourage a company to increase social activities and disclose more environmental information in order to meet its creditors' expectations on environmental issues. In other words, the higher the debt to equity ratio, the more social and environmental disclosure would be made. The implication of this argument in the context of environmental disclosure strategy is such disclosure can reduce cost of debt capital. Likewise Hibbit (2003) and Orij (2007) find a positive relationship between corporate social and environmental disclosure and leverage. Conversely, Belkoui and Karpik (1989) find a negative association between leverage and corporate social disclosure level. According to Belkaoui & Karpik (1989) firms with a high leverage must adhere to strict debt covenants. This reduces their ability to spend resources on CSR and disclose information about CSR. The authors therefore argue that there is a negative relation between the two variables. A negative relationship is also reported by other researchers (e.g. Cormier & Magnan, 2003; Dhaliwal et al., 1982; Hagerman & Zmijewski, 1979). Therefore, based on above statement, the following hypothesis is proposed:

H2: Firm's leverage is positively associated with its social and environmental disclosure level.

### **2.2.3. Political Cost Hypothesis**

The political cost hypothesis predicts that large firms are more likely to use accounting choices that reduce reported profit. Size, capital intensity, and market share are proxies for political attention.

Accounting-related investigations on political costs are based on the Positive Economic Theory of Regulation, which recognizes that the political sector has the power to transfer wealth between various parties (Stigler, 1971, Peltzman, 1976). The political costs hypothesis argues that the more a company is subject to potential wealth transfers in the political process, the more its management is likely to adopt accounting policies that reduce such a transfer. In this context, it is costly for individuals to become informed whether accounting profits really represent monopoly profits and to contract with others in the political process to enact laws and regulation that enhance their welfare.

Thus, *ceteris paribus*, large firms are more politically sensitive than small firms and face differential incentives in their choice of accounting procedures that lead them to defer reported earnings from current to future periods (Watts & Zimmerman, 1986). Hence, under political cost hypothesis, managers consider that as they are under a great deal of political scrutiny and public pressure, this could motivate them to disclose social reporting.

Social and environmental disclosures in the annual report of firms can be used in a strategic manner to manage a firm's relation with the community in which it operates that would enhance its wealth (Banwarie, 2011). Based on political cost hypothesis, Belkoui and Karpik (1989) find a positive and significant association between social disclosure and political visibility, as measured by size and systematic risk points to the tendency of managers to choose an accounting procedure to reduce reported earnings and political cost. Similar to Belkoui and Karpik's (1989) work, Ness and Mirza (1991) examine the environmental disclosure practice in UK companies. They demonstrate that a particular voluntary social disclosure in the organization's annual report can be explained as an effort to reduce the political cost of the disclosing entities.

In line with Belkoui and Karpik's (1989) and Ness and Mirza's (1991) works, Cowen et al. (1987) argue that the larger the firm the more chance it is to disclose social reporting. Cormier and Magnan (2003) also support this view when they find a similar result as Cowen et al.'s (1987). In Indonesia, Sarumpaet (2005) finds that the influence of company size of environment is quite predictable as it is argued that big companies can afford to invest in a more environmentally friendly technology and management. Thus, considering the argument above, it is hypothesized that:

H3: Firm's size is positively associated with its social and environmental disclosure level.

The application of reporting of CSR activities in Indonesia has shifted from voluntary to mandatory. The obligation to carry out the role of CSR and corporate social and environmental reporting is stronger with the issuance of Law no. 40 of 2007 on Limited Liability Article no. 74, which is the fourth paragraph of Article 74, which imposes the obligation for all companies associated with natural resources to implement social and environmental responsibility.

The influence of government regulation as in Law no. 40 of 2007 on Limited Liability Companies towards corporate social and environmental disclosure was investigated by Sumedi (2010). He argues that the emergence of government regulations has a significant effect on the level of corporate social and environmental reporting. Next, Sumedi states that the presence of regulations will pressure the companies to make disclosures as a form of regulatory compliance. Furthermore, the emergence of government regulation as one form of political pressure will affect the company's activities. Therefore, companies have an incentive to strategize in order to reduce the impact of political pressure (Cahan et al., 1997; Patten & Trompeter, 2003). To avoid the negative impact of the governments, companies usually conduct corporate social and environmental disclosure practices and earnings managements. Earnings managements are one of the most frequently cited performance statistics that are of major interest to external capital providers, suppliers, employees, customers, communities and regulators (Prior et al., 2008).

Thus earnings management practice is one of the most attentive issue from corporate's stakeholders concern. Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Healy and Wahlen, 1999), and this action will decrease the financial statement's quality (Kinney et al., 2004). Earnings quality is the inverse of earnings management. Firms with good earnings quality will therefore have low earnings management and vice versa (Yip et al., 2011). Managers take advantage of GAAP flexibility to manage reported earnings in their financial report (Gargouri et al., 2010).

Managers can then choose the accounting policy to manage earnings without violating GAAP. This strategy is to inflate or deflate earnings than actually occurred, thus, it is called earnings management. The political cost hypothesis from Watts and Zimmerman (1978) predicts that if managers face the possibility of politically-imposed wealth transfers (e.g., taxes, government subsidies, tariffs, etc.) they will choose accounting procedures that reduce the expected value of the transfer (Cahan, 1992).

Several studies have examined the relationship between political pressures and company strategies by examining the political cost hypothesis (Cahan, 1992; Cahan et al., 1997; Patten & Trompeter, 2003). Patten and Trompeter (2003) examine environmental disclosure levels from a theoretical perspective of the positive accounting theory (PAT). They study the event-related association between environmental disclosure levels from the companies' 10K reports and earnings management. Earnings management here is represented by company's discretionary accruals. According to Patten and Trompeter, management has been encouraged to maintain a positive image by decreasing the company's finance in reported earnings. They argue that the corporate social and environmental disclosure and earnings management are related to each other. Yip et al. (2011), examine the relationship between earnings management and CSR disclosure. They argue if this relationship is driven more by political cost considerations they expect CSR disclosure to be positively related to earnings management (i.e. negatively related to earning quality). If firm's ethical predisposition dominates, they expect a negative relationship between CSR disclosure and earnings management (i.e. positively related to earnings quality). They test their hypotheses using data from two U.S. industries, the oil and gas industry and the food industry, and the result shows that political cost are driving the relationship.

There are several research works that investigate the relationship between earnings management and corporate social and environmental disclosure (e.g. Chih et al., 2008; Gargouri et al., 2010; Prior et al., 2008). Prior et al. (2008) explain that by disclosing their social and environmental activities, companies could receive favorable treatment with respect to regulation, gain high support from social activist groups, achieve the legitimacy from the industrial community, obtain positive news from the media, and finally maintain the company's reputation. Thus it can be hypothesized that,

H4: Firm's earning management is positively associated with its social and environmental disclosure level.

### 3. Methodology

This research is mainly grounded in the content analysis of the firm's annual reports and standalone corporate social and environmental reports or sustainability reports in the company's website. The population of the sample is all listed companies since they are required to publish their annual reports yearly in the Indonesian Stock Exchange from 2005 until 2009. This study applies purposive sampling method on the sectors of the listed companies in the Indonesian Stock Exchange. There are approximately 336 to 398 companies listed on the Indonesian Stock Exchange from 2005-2009 or about 1857 observations. However, some observations could not be included due to delisting, financial and trade companies or unavailability of data. The final sample consists of 911 observations (year-firms). This study measures the level of corporate social and environmental disclosure in terms of Global Reporting Initiative index based on combination of Clarkson's environmental index (2007) and Sutantoputra's social index (2009).

#### 3.1. Model Specification

$$SED\text{L} = \alpha + \beta_1 \text{ROA} + \beta_2 \text{LEV} + \beta_3 \text{SIZE} + \beta_4 \text{DACC} + \varepsilon$$

Where

SED\text{L} : Social and Environmental Disclosure Level is score of voluntary environmental disclosures

$\alpha$  : Intercept

ROA : Return on Assets is total return on assets measured as the ratio of income before extraordinary items at the end of fiscal year t and total assets at the end of fiscal year t-1

LEV : Long-term debt/book value of equity at the end of fiscal year

SIZE : Natural logarithm of market capitalization

DACC : Discretionary accruals

## 4. Analysis and Discussion

### 4.1. Statistics Descriptives

From Table 1., the ROA value is varied from negative value to positive value. For example in 2005 mean value of ROA was 0.212, but in 2008 the mean value of ROA was -0.5777. The higher the ROA, the better the company's managers use the assets to create profits. It is likely reasonable to consider low or negative ROA as a sign of bad management. Leverage ratio is accounted as the extent to which a company has depended upon loan to finance its operations. The LEV values are varied from 2005 to 2009., in 2005 LEV value is 3.951, decreases steadily to the value of 0.5309 in 2006, then increases from 2007 to 2008, and decreases to 1.7819 in 2009 (Table 1). The higher the degree of leverage, the riskier the company. LNSIZE is proxy of company's size. Company size is measured as the natural logarithm of market capitalization. Market capitalization is calculated by multiplying company's shares outstanding by the current market price of one share. The LNSIZE' mean value varies in between 32.41 to 32.95 from 2005 to 2009 (Table 1). Discretionary accruals (DACC) also varied every years from 2005 to 2009. Beginning from 0.29 in 2005, DACC decreased into negative value of -0.9548 in 2009.

### 4.2. Hypothesis Testing

The results in Table 3 provide strong support for hypotheses H2a, H2c, and H2d and, therefore, rejects the null hypothesis. Hypothesis H2b (LNLEV) has a insignificant coefficient in four out of five year regressions, such that fail to reject the null hypothesis. The four independent variables supporting Positive Accounting Theory provided a significant regression coefficient (at the five per cent level) nearly in all years except for LNLEV. *R*-squared that is also referred to coefficient of determination is commonly used for evaluating the goodness of fit of the regression equation. *R*-squared is used to indicate the portion of the variance of the dependent variable due to the joint effect of independent variables in the equation. If *R*-squared is equal to 0, it means that there is no linear relationship between the dependent and independent variables. Conversely, if *R*-squared is equal to 1, it means that it is a perfect linear relationship between the dependent and the independent variables. Hair et al. (1998), stated that the adjusted *R*-squared value provides an indication of the explanatory power of regression equation. The greater the value of adjusted *R*-squared, the greater explanatory power of the model, and consequently the better prediction of SEDL as dependent variable. The amount of variability in disclosure (as measured by the coefficient of determination, adjusted *R*-squared) varies over time from 0.148 to 0.574 (Table 3). The highest adjusted *R*-squared value was 0.574 (year 2008), and the lowest was 0.148 (year 2007).

#### 4.2.1. Hypothesis related to Firm Bonus plan (H1)

For LNROA, in four out of five years data, the regression was significant ( $p \leq 0.05$ ) with positive slope, of 0.936, 0.966, 1.532, and 0.772 from year 2005, 2007, 2008, 2009, respectively. This suggests that for each unit of increase of the independent variable (LNROA), there is an expected increase of SEDL as dependent variable by the value of 0.936, 0.171, 0.966, 1.532, and 0.772 from 2005 to 2009, respectively. The examination of *t*-values of 2005, 2007, 2008 and 2009 ( $t = 5.936, 3.165, 7.912$  and  $3.638$  respectively,  $p < 0.05$ ) indicates that LNROA contributes to the improvement of SEDL. This finding, therefore, justifies the **rejection of the null hypothesis**.

#### 4.2.2. Debt/equity (leverage) hypothesis (H2)

It was postulated as H2 that firm's monitoring cost is positively associated with its social and environmental disclosure level (SEDL). Therefore, the LEV coefficients is expected to be positive and significant. The results in Table 3 showed that the coefficients were not significant in 2005, 2006, 2008, 2009 (-0.005, 0.105, -0.072 and -0.081, respectively) except in 2007 ( $B = 0.320, p < 0.05$ ). Instead, the coefficients were negative in 2005, 2008 and 2009, and only in 2006 and 2007 provided positive direction as predicted. Therefore, the result is **fail to reject the null hypothesis**.

#### 4.2.3. Political cost Hypothesis- Size (H3)

Size (LNSIZE) proxy was chosen for testing the political cost argument. As predicted, the direction of association was positive for all years (Table 3). Significant positive coefficient (0.683, 0.854, 0.502, 0.588, and 0.590, for year 2005 to 2009, respectively) means that for each unit increase of the independent variable (LNSIZE), there is an expected increase in SEDL as dependent variable by the value of the coefficients for year 2005 to 2009. This finding justifies the **rejection of the null hypothesis**.



#### 4.2.4. Political cost hypothesis-Earning Management (H4)

Earning management (DACC) proxy was chosen for testing the political cost argument besides SIZE. The results of the regressions indicated that the direction of association was positive as predicted for all years regressions (Table 5.11). Significant ( $p < 0.05$ ) positive coefficient for 2005, 2006, 2008 and 2009 (0.536, 0.657, 0.105, 0.068, and 0.790, respectively) except year 2007 means that for each unit increase of DACC independent variable, there is an expected increase in SEDL as dependent variable by the value similar to the respective coefficients. Examination of t-values of 2005, 2006, 2008, 2009 ( $t = 2.376, 1.183, 9.876, \text{ and } 3.664$ , respectively, with  $p < 0.05$ ) indicated that DACC contributes to the improvement of SEDL only in year 2007 provided insignificant regression coefficient. This suggest that DACC is significant to SEDL nearly all years except year 2007. This finding allow the **rejection of the null hypothesis**.

### 4.3. Discussion

#### 4.3.1. Bonus plan hypothesis (H1)

The bonus plan hypothesis states that a manager of a firm with bonus plans (tied to reported income) is more likely to use accounting methods that increase current period reported income (Watts and Zimmerman, 1979). If managers is rewarded for their performances, such as stock exchange rates and/or accounting profits, they will attempt to increase the stock exchange rates and/or accounting profits to maximize their own wealth (Deegan and Unerman, 2005) by disclosing their CSR activities in annual reports. It is likely that more CSR disclosure leads to better firm performance, and consequently the managers will be more rewarded (Banwarie, 2011). According to PAT, firms that disclose their social and environmental activities tend to have greater rate of return. Similar to the logical thinking of bonus plan hypothesis, this study found empirical evidence to support the hypothesis that firm's bonus plan is positively associated with its social and environmental disclosure level. It was also found from the multivariate analysis that firm's bonus plan is a predictor or a significant explanatory variable of corporate social and environmental disclosure. This findings confirm the theory that corporate social and environmental disclosure increases when the degree of firm's bonus plan increases (while other factor remained constant) and vice versa. The findings are consistent with the result of previous studies (cf. Barako et al., 2006; Chan, 1996; Haniffa & Cooke, 2005; Willekens et al., 2005; and Zakaria, 2011).

#### 4.3.2. Debt/equity hypothesis (H2)

Insignificant and inverse direction result was found in majority of the association between leverage and corporate social and environmental disclosure level. This finding is consistent with Belkoui and Karpik (1989) that negative association between leverage and corporate social and environmental disclosure can be caused companies with a high leverage adhere to strict debt covenants. This results in decreases of their ability to spend resources on corporate social and environmental activities, as well as to disclose information about their social and environmental activities. The decision to disclose corporate social and environmental activities will decrease the company's income. Therefore, companies which have high leverage will reduce their social and environmental disclosure level. A negative relationship was also reported by previous studies (cf. Cormier & Magnan, 2003; Dhaliwal et al., 1982; Eljido-Ten, 2004; Hagerman & Zmijewski, 1979; Roberts, 1992).

#### 4.3.3. Political cost hypothesis- Size (H3)

The study found empirical evidence to support the hypothesis that monitoring cost (which proxy by size) is positively associated to the corporate social and environmental discosure level. It was also found from the multivariate analysis that size is a predictor or a significant explanatory variable of corporate social and environmental disclosure level. Size is commonly used as a proxy for public visibility. Larger companies are more susceptible to scrutiny from stakeholder groups since they are highly visible to external groups and more vulnerable to adverse reactions among them. Larger companies, on average, are more diversified across geographical and product markets, thus having larger and more diverse stakeholder groups. This finding confirm the political cost hypothesis that firms which have higher visibility in the political arena and, therefore, are attractive targets for government-imposed wealth transfers (e.g. taxation, regulation, government subsidies) have incentives to make more voluntary disclosures in an effort to minimize political costs (Watts & Zimmerman 1986). Similar to previous studies, it is more likely that larger, more visible companies In Indonesia will consider social and environmental activities and disclosure as a way of enhancing corporate reputation (cf. Adams et al, 1998 ;Belkoui & Karpik's ,1989; Cormier & Magnan, 2003; Cowen et al., 1987; Ness & Mirza, 1991; Neu et al., 1998; Sarumpaet, 2005).



**Political cost hypothesis-Earning Management (H4)**

The study found evidence to support the hypothesis that earning management was positively associated with corporate social and environmental disclosure level. Also, it was found from multivariate analysis that earning management was a predictor or a significant exploratory variable of corporate social and environmental disclosure level. The finding confirmed the political costs hypothesis that the more a firm is subject to potential wealth transfers in the political process, the more its management is likely to adopt accounting policies that reduce such a transfer. Political costs faced by firms create incentives for managers to engage in downward manipulation of earnings. In conservative accounting policy, in the case of companies asking for government subsidies, earning management is conducted to encourage a positive regulatory action by attempting to influence the government, to make a favourable assessment to the company's interests (Magnan et al., 1999).

In the case of firm as a subject to investigation of irregular practices, earning management is conducted to keep away from a negative regulatory action, which includes either persuading the government not to implement unfavourable judgement to the firm or excluding the negative effects of an undesired regulatory change. (Cahan, 1992). In addition, earning management will decrease the financial statement's quality (Kinney et al., 2004). As earnings quality is the inverse of earnings management, firms with good earnings quality will have low earnings management and vice versa (Yip et al., 2011).

As such, if the association is driven more by political cost considerations, it is expected that corporate social and environmental disclosure is negatively associated with earnings management. While corporate social and environmental disclosure is becoming increasingly important in Indonesia current business environment, corporate social and environmental reporting decisions appear to be driven more by traditional concerns, such as: avoidance from political scrutiny and its possible costs. This study is consistent with previous studies that investigate the association between earnings management and corporate social and environmental disclosure (cf. Cahan, 1992; Chih et al., 2008 ; Gargouri et al., 2010; Patten & Trompeter, 2003; Prior et al., 2008 and Yip et al., 2011).

**5. Conclusion**

PAT is based on the concepts of wealth maximization and individual self interest that underlie economic theory (Gray, Kouhy, & Lavers, 1995b). The empirical result under PAT ( Table 3) with regard to the firms characteristic of bonus plan, is positively associated with corporate social and environmental disclosure. If managers is rewarded for their performances, such as: in stock exchange rates and/or accounting profits, they will attempt to increase the stock exchange rates and/or accounting profits to maximize their wealth (Deegan and Unerman, 2005) by disclosing their CSR activities in annual reports. As such, more CSR disclosure may lead to better firm performance, and the managers will be more rewarded (Banwarie, 2011). The second firm characteristic was LEV (proxied by debt to equity ratio). Non significant and inverse direction of the association between leverage and corporate social and environmental disclosure level was found in most years. According to Belkoui & Karpik (1989), the negative association can be caused by an argument that companies with a high leverage adhere to strict debt covenants. This decreases their abilities to spend resources on corporate social and environmental activities, as well as to disclose information about their social and environmental activities. Further research is needed to explore the debt/equity hypothesis in other context or different time periods, as noted by Gray et al. (2001) that inconsistency of previous results is a common feature of CSR research.

Concerning SIZE, the study found empirical evidence to support the hypothesis that public visibility (which proxied by size) was positively associated with corporate social and environmental disclosure level. This finding confirms the political cost hypothesis that firms with greater visibility in the political arena and, therefore, are attractive targets for government-imposed wealth transfers (e.g. taxation, regulation, government subsidies) have incentives to make more voluntary disclosures in an effort to minimize political costs (Watts & Zimmerman 1986). The fourth firm characteristic was earning management as a proxy of political cost hypothesis. In Indonesian context, the finding confirms the political costs hypothesis that the more a firm is subject to potential wealth transfers in the political process, the more its management is likely to adopt accounting policies that reduce such a transfer (i.e. earning). Earnings quality is the inverse of earnings management. Consequently, firms with good earnings quality will have low earnings management, and vice versa (Yip et al., 2011). If the association is driven more by political cost considerations, it can be expected that corporate social and environmental disclosure is positively associated with earnings management.

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## Notes

**Table 1. Descriptives Statistics (before transformation)**

Variables	Min	Max	Mean	SD	Skewness	Kurtosis
<b>SEDL2009</b>	17.42	93.26	42.3711	16.83749	0.888	0.371
ROA	-0.30	52.59	0.8827	4.96985	9.014	86.022
LEV	-10.70	59.51	1.7819	5.44777	7.767	72.299
LNSIZE	20.77	32.88	27.1114	2.127313	0.177	0.111
DACC	-107.80	31.46	-0.9548	7.89591	-11.441	160.306
<b>SEDL2008</b>	15.17	84.83	40.9059	15.97386	0.933	0.500
ROA	-125.50	1.48	-0.5777	8.7053	-14.415	207.866
LEV	-4.59	322.27	5.9770	34.77891	8.415	71.640
LNSIZE	22.33	32.57	26.8129	1.90232	0.224	0.046
DACC	-82.73	3.23	-0.2012	5.9568066	-13.117	180.6
<b>SEDL2007</b>	15.7	80.34	39.7148	15.51608	1.000	0.785
ROA	-0.87	1.63	0.0628	0.20188	3.323	25.469
LEV	-15.14	70.47	2.1491	7.00255	7.125	62.236
LNSIZE	20.71	32.95	27.1451	2.38099	-0.061	-0.056
DACC	-82.73	3.23	-0.2754	6.36504	-12.278	158.155
<b>SEDL2006</b>	6.18	78.65	38.1881	14.52967	1.046	1.430
ROA	-0.69	1.20	0.0138	0.12994	0.017	3.298
LEV	-68.98	20.90	0.5309	6.77964	-7.379	72.658
LNSIZE	22.38	32.95	26.9344	2.18848	0.309	-0.401
DACC	-27.10	0.65	-0.1673	2.16925	-12.275	153.113
<b>SEDL2005</b>	15.17	78.65	38.008	13.37358	1.140	1.929
ROA	-0.47	13.60	0.212	1.22780	9.379	98.397
LEV	-46.55	246.00	3.951	22.46211	8.977	94.110
LNSIZE	22.97	32.41	26.549	2.02460	0.477	-0.183
DACC	-1.25	0.29	0.021	0.15970	-5.133	34.218

**Table 2. Correlation among variables**

<b>PAT MODEL</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>LNSED-LNROA</b>	0.481 (0.000)**	0.055 (0.513)	0.172 (0.032)*	0.490 (0.000)**	0.184 (0.014)*
<b>LNSED-LNLEV</b>	-0.067 (0.239)	0.097 (0.244)	0.052 (0.499)	-0.043 (0.308)	0.08 (0.917)
<b>LNSED-LNSIZE</b>	0.224 (0.008)**	0.398 (0.000)**	(0.185) (0.013)*	0.259 (0.000)**	0.286 (0.000)**
<b>LNSED-LNDACC</b>	0.173 (0.033)*	0.275 (0.003)*	0.077 (0.848)	0.601 (0.000)**	0.723 (0.000)**

**Table.3. Regression Result By Year- PAT MODEL**

	2005	2006	2007	2008	2009
<b>C (t)</b>	<b>4.023</b>	<b>3.358</b>	<b>2.394</b>	<b>2.391</b>	<b>2.164</b>
<i>p</i> value	(0.000)**	(0.001)**	(0.018)*	(0.018)*	(0.045)*
B	0.942	0.833	0.562	0.559	0.502
SE	0.234	0.248	0.235	0.233	0.232
<b>LNROA (t)</b>	<b>5.936</b>	<b>1.413</b>	<b>3.165</b>	<b>7.912</b>	<b>3.638</b>
<i>p</i> value	(0.000)**	(0.161)	(0.002)*	(0.000)**	(0.018)*
B	0.936	0.171	0.966	1.532	0.772
SE	0.157	0.121	0.305	0.193	0.212
<b>LNLEV(t)</b>	<b>-0.068</b>	<b>0.448</b>	<b>4.127</b>	<b>-0.882</b>	<b>-0.431</b>
<i>p</i> value	(0.946)	(0.655)	(0.000)**	(0.380)	(0.672)
B	-0.005	0.105	0.320	-0.072	-0.081
SE	0.073	0.234	0.078	0.0816	0.188
<b>LNSIZE(t)</b>	<b>3.911</b>	<b>3.638</b>	<b>2.119</b>	<b>2.046</b>	<b>2.131</b>
<i>p</i> value	(0.000)**	(0.000)**	(0.036)*	(0.043)*	(0.048)*
B	0.683	0.854	0.502	0.588	0.590
SE	0.174	0.234	0.237	0.287	0.277
<b>LNDACC(t)</b>	<b>2.376</b>	<b>2.183</b>	<b>1.075</b>	<b>9.876</b>	<b>3.664</b>
<i>p</i> value	(0.019)*	(0.031)*	(0.284)	(0.000)**	(0.02)*
B	0.536	0.657	0.105	0.608	0.790
SE	0.226	0.301	0.097	0.062	0.216
<b>Adjusted R<sup>2</sup></b>	<b>0.322</b>	<b>0.154</b>	<b>0.148</b>	<b>0.574</b>	<b>0.344</b>
%	(32.2%)	(15.4%)	(14.8%)	(57.4%)	(34.4%)
<b>Anova (F)</b>	<b>14.436</b>	<b>5.955</b>	<b>6.863</b>	<b>44.873</b>	<b>3.747</b>
<i>p</i> value	(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.023)*

Note: C represent Intercept; B represent Unstandardized Coefficient; SE represent Standard Error; \*\*, \* represent significance levels at 1%, and 5% respectively.