

Environmental Expenditure Disclosure, Corporate Social Responsibility and Accounting Information Quality

ABSTRACT

This research examines the impact of environmental expenditure, environmental disclosure, and corporate social responsibility disclosure on the quality of accounting information. The quality of accounting information provided by companies has been highly doubted in recent years, hence this research aims to connect it to non-financial information, which are environmental cost and corporate social responsibility disclosure. The population of this research consist of manufacturing companies listed on Indonesian Stock Exchange from 2016 to 2020. This research uses purposive sampling and obtains 105 samples. Te analysis method used is double regression analysis. The result shows that environmental disclosure and corporate social responsibility disclosure increase the quality of accounting information, while environmental expenditure disclosure does not affect the quality of accounting information. Environmental expenditure disclosure is one of the voluntary disclosures which are part of management accounting, so the stakeholders, including investors tend to not considering that information in their investment decision making, since management accounting is used mostly by the internal management.

Keywords: environmental disclosure, corporate social responsibility disclosure, environmental expenditure, accounting information quality

1. INTRODUCTION

Information quality is one of the most important elements in financial reporting. Stakeholders use the information in financial reports to evaluate the performance of the company and to make decisions (Aswati, 2015). Investors benefit from a high-quality accounting information by helping them make better investment decisions. There are several criteria which define the quality of accounting information. The fundamental qualities include relevance and faithful representation (Kieso et al., 2014). Other characteristics which can improve accounting information quality are comparability, verifiability, timeliness and understandability (IFRS Foundation, 2016).

One of the most important criteria of information quality is relevance. The relevance of an accounting information will influence the stakeholders' decision making (Porter & Norton, 2007). An information is relevant if that information can influence the users' economic decision making. An information can have a predictive value if that information can help users evaluate or assess past or future events (Bukonya, 2014). The relevance of an accounting information can be observed from the fluctuation of share prices following the announcement of that information (Harahap, 2016).

In their decision making, companies need to consider non-financial aspects (Mbabazise et al., 2015), since financial information is not enough to assess future performance and firm value (Orens & Lybaert, 2013). Financial information only conveys short-term information; hence it becomes more important to consider non-financial information. In this globalization era, some non-financial information which are important for the stakeholders include companies' environmental activities and their expenditure to prevent or treat environmental damage caused by their operations (Suaryana et al., 2011).

Nowadays, the society's concerns towards economical and environmental sustainability have sparked a trend which obliged companies to disclose their social responsibility activities (Chen et al., 2018). Corporate social responsibility is a concept in which companies integrate social and environmental matters to their business operations as well as stakeholders involvement (UN, 2019). Corporate social responsibility disclosure is a form of communication in which a company explains the impact of their business to the surrounding social and environmental aspects and how the company treats the impact, which in turn build internal and external credibility (Oncioiu et al., 2020).

Agusti & Rahman (2011) states that corporate social responsibility has a value relevance. Value relevance decreases when the company engages in earnings management (Kusuma., 2006). Earnings management is a policy chosen by management to attain certain objectives, usually to achieve management's personal satisfaction and increase firm market value (You et al., 2018). Brizolla & Klann (2019) states that companies which spend more on environmental investment has lower level of earnings management.

Companies which involve in environmental initiatives, marked by high environmental expenditure and extensive CSR disclosure, are less likely to involve in earnings management practices (Kim, Park, & Wier, 2011). They also have lower incentive to do earnings manipulation (Litt, Sharma, & Sharma, 2014). This research aims to develop the study of Brizolla & Klann (2019), which finds that environmental expenditure and disclosure increase accounting information quality.

2. CONCEPTUAL FRAMEWORK, HYPOTHESIS, AND RESEARCH METHOD

2.1 Conceptual Framework

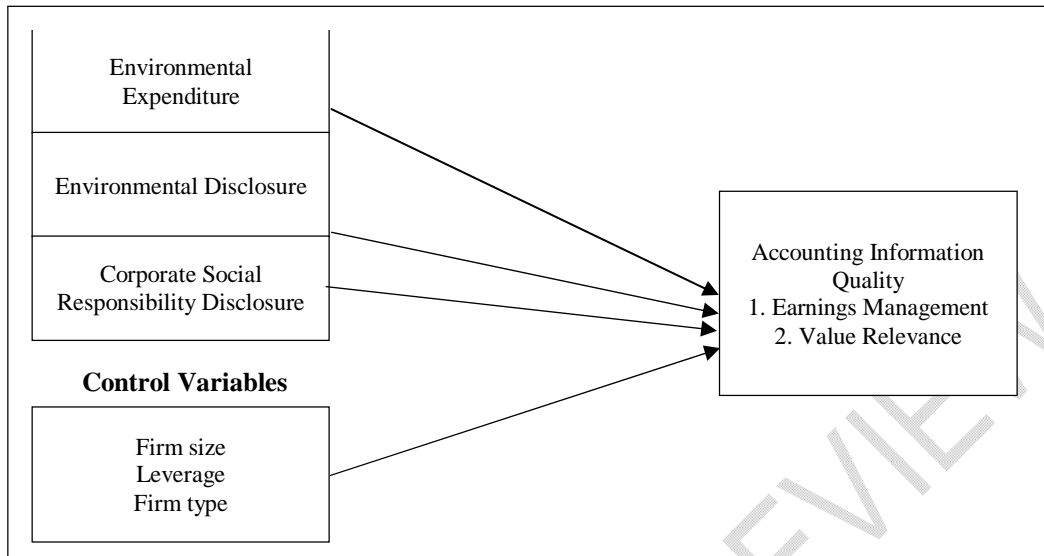
This research is based on the stakeholder theory and signaling theory. The stakeholder theory assumes that companies need support from stakeholders to maintain their existence, hence companies need to consider stakeholders' interests in all their activities (Rokhlinasari, 2015). The signaling theory stipulates that the purpose of disclosure is to obtain legitimacy from the stakeholders and give positive signals to the shareholders. Environmental expenditure disclosure and CSR disclosure can give positive signals by improving the relevance of accounting information.

Companies spend on environmental expenditure to fulfill their responsibilities to protect the environment from the impact of their operations (Hansen & Mowen, 2005; Ojiakor & E-Obodoekwe, 2018). Information regarding environmental expenditure is used by management in their decision making (Andayani, 2017). Environmental expenditure can be calculated by comparing costs incurred for environment-related CSR activities with aftertax net income (Egbunike & Okoro, 2018). Companies may obtain economic gain from environmental expenditure information by reducing materials and waste, as well as lower penalties related to environmental damage (Mersi, 2016). Environmental disclosure could also improve the company's image (Meilanawati, 2013).

Based on the stakeholder theory, companies are required to share information regarding their operations which have direct or indirect impact towards the stakeholders. They do this to obtain support from the stakeholders. The legitimacy theory explains that the support from the stakeholders can influence the sustainability of the business.

Studies in Indonesia related to environmental practices and accounting information quality report inconsistent findings. Some studies found that environmental practices such as environmental expenditure, environmental disclosure and CSR disclosure increase the quality of accounting information (Brizolla & Klann, 2019; Pyo & Lee, 2013; Setyahuni & Handayani, 2020). On the contrary, another study finds that environmental practices have no influence on the quality of accounting information (Schmelzer, 2013).

image 1 : Our conceptual framework is shown below:



2.2 Hypothesis

Environmental cost expenditure has been disclosed by several Indonesian companies. Aside from the disclosures required by law, voluntary disclosures were done by companies to improve their image and attract public attention (Meilanawati, 2013). Brizolla & Klann (2019) and Pyo & Lee (2013) found that environmental disclosures improve the quality of accounting information through lower earnings management and increased value relevance. This finding is consistent with Setyahuni & Handayani (2020) and Aureli et al., (2020). Companies which fulfill their environmental responsibilities produce higher quality reports. This will eventually benefit the stakeholders.

Based on the explanation above, we proposed the following hypotheses:

H1: *Environmental costs negatively impact earnings management.*

H2: *Environmental information disclosures positively impact earnings value relevance and book value.*

Corporate social responsibility (CSR) disclosures provide information regarding corporate activities which have impact on the community, environment, employees, consumers and energy usage of the company (Said et al., 2009). Companies perform and disclose CSR activities to maintain their relationship with the stakeholders and obtain legitimacy from the society.

Agusti & Rahman (2011) and Narullia et al., (2019) found that CSR disclosures have an impact to the quality of accounting information through the fluctuation of share prices following the issuance of the disclosures. In contrast, Schmelzer (2013) found that CSR disclosures does not cause fluctuation of share prices.

Based on the above explanation, we proposed the following hypothesis:

H3: *Corporate social responsibility disclosures positively impact value relevance and book value.*

2.3 Research Method

This research examines the relationship between independent and dependent variables using quantitative method. The population in this research are manufacturing companies listed on Indonesian Stock Exchange from 2016 to 2020. GRI Standards was initially applied in 2016. The manufacturing sector is chosen due to its nature of operations which produce waste and potentially harm the environment. The samples are chosen by purposive sampling method using several criteria.

2.3.1 Samples

The sample selection process is shown in Table 1.

Table 1. Sample Selection

No.	Description	Number of Companies
1	Manufacturing companies listed on Indonesian Stock Exchange from 2016 to 2020	181
2	Companies not issuing sustainability reports and/or annual reports during the research period	(3)
3	Companies with incomplete data related to environmental costs, environmental information disclosures, and CSR disclosures	(143)
4	Companies using foreign currency or operating in loss	(14)
Number of samples		21
Number of observations during 2016-2020		105

2.3.2 Operationalization and Measurement of Variables

Environmental Costs

Environmental costs are measured by the amount disclosed in CSR or sustainability reports using the following formula:

$$EC = \frac{\text{Environmental Costs}}{\text{Net income after tax}}$$

The index of environmental disclosure uses the following formula:

$$IED_j = \frac{\sum_{t=1}^{n_j} X_{ij}}{n_j}$$

CSR Disclosures

CSR Index for each company is measured using the method developed by Amran (2014). The study measures corporate social disclosures by giving a score of 1 for disclosing companies and 0 for non-disclosing companies. The maximum score when a company discloses all information is 10. A company's total score is divided by the maximum score to get to the data ready to use for the research. This method is modified from environmental disclosure index by Clarkson et al., 2008 and Sutantoputra, 2009.

Value relevance

Value relevance of an accounting information is calculated using a formula from Ohlson (1995) as follows:

$$MVE = \alpha + \beta_1 EPS_t + \beta_2 BVPS_t + \beta_3 ED_t + \beta_4 CSR D_t + \beta_5 FZ + \beta_6 LV + \beta_7 TP + \varepsilon$$

Earnings Management

The measurement of earnings management used in this research is the regression equation replicating the measurement of real earnings management through cash flows, by Roychowdhury (2006).

Source: Brizolla & Klann (2019)

$$\frac{CFO_t}{A_{t-1}} = \alpha + \beta_1 \left(\frac{1}{A_{t-1}}\right) + \beta_2 \left(\frac{S_t}{A_{t-1}}\right) + \beta_3 \left(\frac{\Delta S_t}{A_{t-1}}\right) + \varepsilon$$

3. RESULT AND DISCUSSION

The result of this research will be explained with descriptive statistics, regression result, and discussion.

3.1 Descriptive Statistics

Table 2. Descriptive Statistics Result

	N	Minimum	Maximum	Mean	Std.Deviation
Environmental Disclosure	105	.06	.62	.1905	.12366
Market Value for Equity	105	19.15	32.43	28.0197	2.40477
EPS	105	-2	38596	610	3769
Book Value per Share	105	-159,78	244558	5261	29698
Firm Size	105	25.32	32.01	28.4953	1.32565
Leverage	105	.00	16.95	.9495	1.99058
Company Type	105	1	3	2.29	.769

	N	Minimum	Maximum	Mean	Std.Deviation
CSR Disclosure	105	.20	1.00	.7162	.16357
Real Earnings Management	105	-.62	.28	.0472	.10328
Environmental Cost	105	.00	1.15	.0274	.12197
Valid N (listwise)	105				

The result of descriptive statistics shows no significant deviation in the data. The data consists of 105 observations. The classical assumption tests include normality test which results in a significance of less than 0.05, with Model 1 has significance of 0.059 and Model 2 has 0.2. The multicollinearity test results in tolerance value and variance inflation factor (VIF) less than 0.10 or VIF value less than 10, hence the data is free from multicollinearity.

The heteroscedasticity test in this research is conducted using the Glejser test by regressing all independent variables towards an absolute residual value of the model. The model is considered free from heteroscedasticity if the significance of the F test is greater than 0.05. The testing results in significance of Model 1 and Model 2 of 0.768 and 0.983, respectively. The autocorrelation test results in Asymp. Sig (2-tailed) of 0.817 for Model 1 and 0.324 for Model 2. This value is above the significance limit of 0.05, hence it is concluded that the residual value of both models are free from autocorrelation.

3.2 Hypothesis Testing

The hypothesis testing consists of two models, Model 1 is to examine the independent variables towards earnings management, while Model 2 examines the independent variables towards value relevance. The result of the double regression testing is shown on Table 3.

Table 3. Double Regression Testing

	Model	Koefisien	Std. Error	t	Sig.
1	(Constant)	-,397	,227	-1,749	,083
	Environmental Expenditure (X1)	-,046	,081	,570	,570
	Firm Size (FS)	-,013	,008	1,650	,102
	Leverage (L)	-,001	,005	-,242	,809
	Company Type (TP)	,027	,013	2.008	*,047
2	(Constant)	21,126	1,282	16,483	,000
	Environmental Disclosure (ED)	13,069	1,464	8,929	****,000
	EPS	,001	,000	-2,717	***,008

Model	Koefisien	Std. Error	t	Sig.
BVPS	2,679	,000	-14,520	***),000
Firm Size	,032	,043	,743	,459
Leverage	,049	,061	,801	,425
Company Type	-,139	,068	-2,026	**),046
CSRD	5,980	,746	8,013	***),000

Keterangan:
 ***) Significant on 1% **Adjusted R2 of 0.057% and 0.52%**
) Significant on 5% **F test 0.042 dan 0.00
 *) Significant on 10%

The result shows that book value is one of the important aspects that investors consider in their decision making. Higher book value and earnings per share lead to higher firm value. Book value is considered a benchmark of a safety plan in investing, where it could be a predictor of the lowest tolerable price of a stock (Puspita & Samin, 2014).

Net income is another important information that the investors consider. An increase in the net income of a company reflects a favorable performance of the company, which attracts investors' attention. A high level of investment may increase stock price and market value of a company. This result is consistent with Agusti & Rahman (2011); Brizolla & Klann (2019) which argue that book value and earnings per share have value relevance.

The control variables firm size, leverage, and company type do not affect the level of earnings management. This finding shows that the level of environmental expenditure does not reduce earnings management. This implies that environmental cost disclosures do not increase information quality.

Environmental expenditures incurred by a company tend to not have economic consequences by not having an effect to firm value. Companies tend to consider environmental costs a burden to them that lowers their income. A lower net income may negatively affect investors' intention to invest on the company, which in turn reduces the market value. Furthermore, environmental expenditures are part of management accounting for internal users. This result contradicts the result of Brizolla dan Klann (2019) which finds that environmental costs affect the level of earnings management.

The result also shows that firm size, leverage and company type has a positive impact on value relevance and book value. This shows that environmental disclosures increase value relevance of net income and book value (quality of accounting information).

This result indicates that environmentally responsible companies which voluntarily disclose environmental information have valuable information to the market.

The result of this research support the findings of Brizolla and Klann (2019) and Setyahuni and Handayani (2020) which finds that environmental expenditures have significant effect on value relevance. This result contradicts Qiu (2016) which finds that environmental expenditures have no effect on value relevance. Qiu (2016) states that environmentally-sensitive sectors tend to have lower disclosure level, to avoid potential problems with the stakeholders.

Firm size, leverage, and and company type has a positive impact on value relevance and book value. This shows that CSR disclosures increase the relevance of income and book value. CSR disclosures may increase transparency and reduce information asymmetry, which in turn will increase the credibility of the company in the market.

This result is consistent with Agusti & Rahman, (2011), Lako, (2019) and Narullia et al., (2019) which finds that corporate social responsibility disclosures have a significant impact on value relevance of both net income and book value. A high level of CSR disclosure shows that a company concerns about the impact of its operation to the surrounding economic, social, or environmental condition.

This result contradicts Schmelzer (2013) which finds that CSR disclosures have no impact on value relevance. CSR disclosure is voluntary, but CSR activities are required under the Law number 40 in 2007. This could lead to investors not considering CSR in their decision making, since all companies are equally required to perform CSR.

4. CONCLUSION

This research examines the impact of environmental expenditures, environmental disclosures, and CSR disclosures on the quality of accounting information of manufacturing companies listed on Indonesian Stock Exchange from 2016 to 2020. The result shows that environmental expenditures disclosure does not decrease earnings management. Companies disclose this information to earn legitimacy from the society and support from the stakeholders.

The level of disclosure increases the quality of accounting information. This indicates that investors consider environmental information in their decision making. Hence, we concluded that environmental disclosures improve the quality of accounting information.

Corporate social responsibility disclosures are found to increase value relevance and book value. This indicates that investors take into account information regarding CSR activities in their decision making. Information regarding CSR activities reflects the responsibility and goodwill of a company towards their economic, social, and environmental surroundings.

The control variables, firm size and leverage, do not affect the quality of accounting information. However, company type increases value relevance and the level of earnings management.

This research uses environmental expenditures as an independent variable. However, there is only a small number of companies which disclose their environmental expenditures explicitly. Hence, we consider CSR expenditures as environmental expenditures. There is an element of subjectivity in measuring the corporate social responsibility index. We recommend future studies to reduce the level of subjectivity by discussing with other researchers who had previously studied corporate social responsibility disclosures.

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